

MEMORANDUM

**AGENDA ITEM #4
MEETING OF APRIL 13, 2023**

To: Conservation Commission/**Inland Wetlands and Watercourses Agency**

From: Suzanne Simone, Environmental Planner

Date: April 4, 2023

**Re: Informal Discussion: Potential Development Plans
2800 Main St.**

Proposal

The Commission is provided development scenarios, incorporating two parcels (2800 Main Street and 21-37A Spring Street). These two lots are bisected by a watercourse. Attorney Hope has submitted site plans and a preliminary wetland assessment for review and discussion.

March 30, 2023

Inland Wetlands and Watercourses Agency
Town of Glastonbury
2155 Main Street
Glastonbury, Connecticut 06033

Re: Informal Wetland Review for Proposed Commercial Redevelopment
2800 Main Street and 21-37A Spring Street, Glastonbury, CT

Dear Agency Members:

On behalf of the Applicant, All-Points Technology Corp., P.C. ("APT") is pleased to submit a Preliminary Wetland Assessment Report to the Town of Glastonbury Inland Wetlands and Watercourse Agency ("IWWA") for proposed redevelopment of properties at 2800 Main Street and 21-37A Spring Street in Glastonbury, Connecticut (the "Site" or "Subject Property").

This Preliminary Wetland Assessment Report supports materials submitted by other representatives of the Applicant as part of a Town of Glastonbury Inland Wetland and Watercourse Agency's request to informally review conceptual development of the Site. In preparation of this report, Concept Plans 'G' and 'F' revision date March 15, 2023 and prepared by Close, Jensen, and Miller P.C. ("CJM") were reviewed by APT.

The following narrative provides a description of wetland resources located on the Site, the conceptual regulated activities that are proposed, evaluation of impacts to wetland functions and values by the proposed activity, and recommended mitigation measures.

Introduction

The Subject Property, which is approximately 1 acre, is situated on three lots bordered by Main street to the west, Spring Street to the south, residential properties along the eastern boundary and commercial developments to the north (see Figure 1). Currently the Site consists of a vacant commercial building, a bituminous paved parking lot and access drives, utilities, and landscaping on the 2800 Main Street parcel. This parcel is dominated by impervious surfaces with no apparent stormwater treatment or renovation infrastructure. The two parcels that comprise 21-37A Spring Street are currently undeveloped with vegetated uplands along Spring Street a wetland complex in the northern extents continuing in a southerly direction bordering developed areas. The two Spring Street parcels were historically developed with residences (evident on a 1934 aerial); foundation remnants are still visible along the wetland boundary. One wetland area was identified on the Subject Property consisting of an unnamed perennial watercourse tributary to Salmon Brook with minimal bordering forested floodplain wetlands. The surrounding land-use is dominated by dense commercial development to the north, west, and south with residential development to the east.

Wetland Resources

Dean Gustafson, Connecticut registered Soil Scientists with APT, conducted an inspection of the Site on May 20 and September 9, 2022, to determine the presence or absence of wetlands and watercourses. The delineation methodology followed is consistent with the Connecticut Inland Wetlands and Watercourses Act ("IWWA") regulations.

One wetland (referred to as Wetland 1) located along the northern and central portions of the property drains off-Site through an RCP culvert to the south under Spring Street.

Details of this investigation are summarized below; complete details are provided in APT's October 4, 2022, Wetlands Inspection Report provided in Attachment A. Representative wetland photographs are provided in Attachment B.

Description

Wetland 1 consists primarily of an unnamed perennial watercourse tributary to Salmon Brook (located ±500 feet south of the Site) with narrow bordering floodplain and seep wetlands. This feature has been subjected to significant anthropogenic (manmade) changes resulting in an incised and armored stream channel and constriction of what historically is anticipated were broader floodplain (alluvial) wetlands along both the east and west banks of this watercourse. A stone retaining wall is located along the west stream bank facing the adjacent paved parking lot at the 2800 Main Street parcel; the western jurisdictional limits of the wetland boundary are generally located along the retaining wall. The wetland/stream feature consists of moderately open tree canopy with various invasive plants dominating the understory, indicative of the disturbed nature of this wetland and surrounding uplands. Limited upland buffer is supporting this wetland system due to commercial and residential developments that surround this wetland, including the existing development at 2800 Main Street. The wetland and stream system also conveys stormwater discharges from the surrounding developments including at least two culvert outfalls directing into the stream and one directly into the wetland from commercial developments located north of the Site (Dairy Queen and Griswold Shoppes).

Soil Classification

Soil types encountered during the wetland investigation were generally consistent with digitally available soil survey information obtained from the Natural Resources Conservation Service ("NRCS"). Based on available information collected during the wetland investigation, Wetland 1 is heavily disturbed with evidence of fill material possibly overlying native wetland soils along most of the delineated boundary. Wetland soils are mostly classified as Limerick and Lim alluvial soils with some level of disturbance due to historic and current development activities both on the Subject Property and adjacent parcels. Upland soils were examined along the wetland boundary and more distant upland areas during the site investigation. They are also dominated by Udorthents-Urban land complex. Detailed descriptions of wetland and upland soil types are provided below.

Wetland Soils:

The **Limerick** series consists of very deep, poorly drained soils on floodplains of major rivers, larger tributaries, and occasionally smaller streams. They formed in loamy alluvium. Most areas of Limerick soils are flooded for periods of several days each year, usually in late winter or early spring.

The **Lim** series consists of very deep, poorly drained loamy soils formed in alluvial sediments. They are nearly level soils on floodplains, subject to frequent flooding.

Upland Soils:

Udorthents-Urban Land Complex 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.

Preliminary Wetland Evaluation

There are many methods of evaluating wetlands, all incorporating different parameters to assess these resources. This study uses methodology recommended by the U.S. Army Corps of Engineers (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 determination of this qualitative approach relies on over 30 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 limited opportunity to provide this function. The following functions and values were evaluated for Wetland 1.

Biological Functions

The ecological integrity of Wetland 1 has been significantly compromised due to the heavy landscape-scale manipulations associated with past grading, cutting and filling activities associated with existing and historic Site developments and surrounding roadways and residential and commercial developments. This anthropogenic landscape has resulted in the creation and/or alteration of this wetland feature. Wetland 1 receives stormwater discharges from surrounding development, the primary function of this feature, and contains bordering wetland seeps. The wetland and surrounding uplands are dominated by invasive shrub species in the understory with surrounding proximate development reducing the patch size and limiting wildlife habitat function. Therefore, due to the compromised ecological integrity of this wetland and high level of surrounding human activity wildlife habitat function is not supported by this wetland at a Principal or Secondary level.

Due to the high proportion of stormwater runoff that influences the base flow of the watercourse and resulting poor water quality and general lack of supporting quality aquatic and/or terrestrial habitat, this wetland is not anticipated to support amphibian or reptile habitat in a significant capacity. No evidence of wildlife use beyond typical habituated and urbanized species was noted within or adjacent to Wetland 1 during the investigations. This wetland is not effective at providing significant production export nor does the complex support a large diversity of vegetation (both species distribution and structural diversity), wildlife food sources or commercially used products.

Hydrologic Functions

Located within the 100-year flood zone, this wetland provides flood storage capacity at a Secondary level. Historic development within the flood zone both upstream and on-Site have contributed to the degradation of this resource and its capacity to attenuate flood events with limited bordering floodplain wetlands. The size limitations and minimal bordering floodplain prevent this wetland from providing flood storage capacity at a Principal level. The groundwater use potential within this wetland is generally not supported due to the highly compacted soils that generally prevent infiltration into the underlying groundwater table and would also be limited due to the location in a highly developed setting that has likely contributed to degraded surface water and likely degraded groundwater quality.

Water Quality

The highly developed surrounding environment provides an opportunity for this wetland to provide various water quality functions (e.g., sediment, toxicant, and pathogen retention, and nutrient removal, retention and transformation functions). Wetland 1 receives minimally treated stormwater discharges from commercial developments and roadway runoff. This wetland does not contain a high diversity or abundance of native vegetation, is heavily disturbed and incised thereby limiting the ability to detain or treat stormwater. Despite the opportunity for this wetland to support important water quality functions, treatment is not effective for the aforementioned reasons and therefore do not provide water quality functions at Principle level but does service at a Secondary level.

This complex is heavily incised with an armored channel and minimal vegetation along banks which does not provide sediment/shoreline stabilization function at a Principal or Secondary level.

Societal Values

This wetland provides little to no societal value. Although easily accessible, this wetland lacks ecological integrity which detracts from an educational value standpoint. In addition, the visual/aesthetic qualities are significantly degraded due to the surrounding development, high level of human activity, disturbance that has altered and degraded this wetland, and prevalence of invasive plants. The forestry potential is not supported due to the lack of mature hardwood trees of high board or cordwood value.

This wetland does not support urban wetland quality values in a significant capacity due to the lack of wildlife habitat and limited ecological integrity and degraded visual/aesthetic quality. Since this wetland is surrounded by dense commercial development which provide little or no habitat for wildlife, this wetland could potentially be more significant from an urban habitat perspective due to the lack of wetland habitat in the surrounding landscape. However, the wetland's surrounding disturbance and high amounts of stormwater input would not support significant wildlife use. No evidence of significant wildlife use was noted within these wetlands during APT's investigations, aside from a couple of typical habituated species common to suburban/urban areas.

As such, Wetlands 1 does not support the Recreational, Educational/Scientific, Uniqueness/Heritage, and Visual Quality/Aesthetics at either a Principal or Secondary level.

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 from the Connecticut Department of Energy & Environmental Protection ("DEEP") Natural Diversity Data Base ("NDDDB"). The nearest NDDDB area is located ±0.93 mile to the north based on the latest December 2022 NDDDB Map. As such, consultation with DEEP NDDDB is not required for this Project. Due to the relatively small habitat patch size associated with this degraded wetland resources and the intensive human activity on and surrounding the Site, no significant wildlife habitat exists and therefore rare species would not be anticipated to use the Site. Therefore, Wetland 1 does not support the Threatened or Endangered Species Habitat function at a Principle or Secondary level.

Summary

The primary role of this wetland is associated with the conveyance of stormwater generated by surrounding developments and roadways along with flood storage and water quality functions being supported in a Secondary capacity. Wetland 1 does not support any additional functions and values due to the highly disturbed nature of the surrounding landscape.

Proposed Regulated Activities

The following section summarizes conceptual development activities classified as “regulated activities” as defined by the IWWA’s regulations. The IWWA regulates activities in wetland and watercourses and upland areas within 100 feet of wetlands and watercourses, known as upland review areas (“URA”). The Project design as represented by Concept Plans ‘F’ and ‘G’ avoids direct impacts to Wetland 1. However, both of the development options result in activities within the upland review area as regulated by the IWWA.

The proposed Project as shown in concepts ‘F’ and ‘G’ includes redevelopment of the existing 4,486 square foot building with a similarly sized commercial building, redevelopment of existing parking areas, installation of sidewalks, a retaining wall, and installation of a three sided bottomless concrete box at the location of the existing 48-inch CMP culvert on the 2800 Main Street parcel. To accommodate the town’s parking requirements to facilitate the intended redevelopment project, additional spaces are necessary on 21-37A Spring Street parcel. Concept ‘F’ would include a paved access road on the Subject Property that would connect parking areas between the three parcels while Concept ‘G’ would lack the parking areas connection with just a single access out on Spring Street.

A significant portion of the redevelopment will occur within the upland review area due to the constraints of the Site and location of Wetland 1. The project will require some activity within the 100 Year Flood Zone and a compensatory flood storage area will be added along the east side of Wetland 1. Located generally between Wetland Flags WF 12-18, the compensatory flood storage area will have direct, unrestricted hydraulic connection to the perennial watercourse. Details of the proposed redevelopment are presented in CJM’s Concept Plan ‘F’ and ‘G’ provided under separate cover.

The majority of the activities proposed in the upland review area consist of existing developed and disturbed areas, with a significant portion consisting of existing impervious surfaces. Impacts to the upland review area are summarized in Table 1 below.

Table 1: Proposed Regulated Activities

100 Foot Upland Review Area Activities				
Plan ID	Existing Impervious to be Reconstructed	Proposed Impervious (excluding existing)	Total Direct Impacts	Net Flood Storage Increase
Concept F	8,274 SF	15,931 SF	0 SF	6.88 C.Y.
Concept G	8,274 SF	15,931 SF	0 SF	50.95 C.Y.

Note: All areas are totals within the Subject Property limits

Stormwater Management

The Project has been designed in compliance with DEEP’s guidance and recommendations contained in the *2004 Connecticut Stormwater Quality Manual* (“SQM”). A primary goal of the SQM is to provide a comprehensive framework for the long-term protection of natural resources in and around the Site from degradation as a result of stormwater discharges. Another goal of the SQM is to ensure that long-term post-development stormwater quality is protected and that there will be no erosion caused by the development. Details of this analysis are provided in the Stormwater Management Report, prepared by CJM, submitted under separate cover and summarized below.

This project incorporates a number of stormwater quality measures, including primary treatment practices, secondary treatment practices, and innovative/emerging technologies as defined by the SQM. The proposed system will treat the Water Quality Volume ("WQV") through infiltration practices and hydrodynamic separators. Additional treatment measures include added landscaped areas and sumped catch basins. This comprehensive stormwater management plan will adequately protect stormwater discharge from the Site to Wetland 1 both during and post construction activities and represent a significant improvement to stormwater treatment and renovation over existing conditions.

Impact Analysis

The fundamental concept of wetland impact analysis is based on the precept that wetland 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. Comprehensive mitigation measures are discussed in the following section.

The proposed Project has been designed to minimize impact to wetland resources and minimize development in the 100-year floodplain while satisfying the need for redesign and improved stormwater conveyance. As previously discussed, the proposed Project consists of no direct impact to wetlands with ±24,205 square feet of activities within the 100-foot upland review area; 8,274 square feet of which consists of reconstruction within existing impervious areas with the remaining balance occurring within either historic/existing developed or disturbed areas. Through thoughtful design and use of engineering controls, the project has designed to avoid direct wetland impacts and will overall provide significant improvements to the Site's current stormwater treatment system. Due to the nature of the building redesign, additional parking is needed per the Town of Glastonbury Zoning Regulations. The current 2800 Main Street parcel does not contain sufficient developable area for the parking needs per current regulation requirements. lot expansion requiring a connection to a secondary lot on the 21-37A Spring Street parcels. To avoid direct impacts a three-sided bottomless concrete box with roof is proposed to span Wetland 1.

Wetland 1 primarily supports flood storage function which will be mitigated with the compensatory flood storage area which will also consist of creating ±1,400 square feet of new floodplain wetland habitat. Other typical wetland functions and values of Wetland 1 are not supported in a significant capacity. Therefore, Wetland 1's functions and values will not be significantly impacted or degraded by the proposed redevelopment. In fact, with incorporation of the proposed comprehensive mitigation plan Wetland 1's functions and values will be enhanced by the proposed project. Those improvements also include significant upgrades to the Site's stormwater management system which will provide proper volume and quality treatment of stormwater runoff prior to entering the watercourse within Wetland 1.

Mitigation Measures

To compensate for unavoidable resource impacts associated with the proposed Project, which are principally confined to existing developed and disturbed areas, a comprehensive mitigation plan has been developed as discussed below.

As a result of the comprehensive mitigation plan, the Project's proposed regulated activities will be properly balanced with the creation of a new wetland habitat that enhances the existing wetland system by providing higher function and value services than what currently exists. As a result, the Project will not diminish the wetland resources within the Town of Glastonbury either on Site or downstream of the Site.

The following mitigation measures is proposed to prevent short- and long-term indirect impacts to wetland resource areas and compensate for unavoidable activities associated with the Project.

Wetland and Upland Review Area Mitigation Plan

Careful consideration has been given to devising a mitigation plan that provides compensatory flood storage while at the same time enhancing other wetlands functions and values, particularly wildlife habitat benefits, through the creation of floodplain wetland habitat and enhancing upland review area habitat. The floodplain wetland creation area will include a portion of the compensatory flood storage area starting at approximately proposed elevation 20 feet, which is generally the elevation along the adjacent delineated wetland boundary. This wetland creation area will extend out to the wetland boundary between wetland flags WF 12-18 resulting in creation of ±1,400 square feet of new wetlands. The wetland creation area will consist of excavation of existing fill material that likely overlies original wetland soils to an elevation consistent with the adjacent wetland to allow for unrestricted hydraulic access to the watercourse and bordering wetlands. The wetland creation area will be planted with native shrubs such as arrowwood (*Viburnum dentatum*), silky dogwood (*Cornus amomum*), and winterberry (*Ilex verticillata*) and undersown with a native New England Wetland seed mix. The creation area will also serve as compensatory storage for the unavoidable fill within the 100-Year Flood Zone. Adjacent upland areas proposed for enhancement are currently colonized and dominated by a variety of non-native, woody shrub and vine invasive species such as Japanese honeysuckle bush (*Lonicera spp.*), multiflora rose (*Rosa multiflora*), Japanese barberry (*Berberis thunbergii*), winged euonymus (*Euonymus alatus*), European privet (*Ligustrum vulgare*), Asiatic bittersweet (*Celastrus orbiculatus*), and Porcelainberry (*Ampelopsis brevipedunculata*). Within these areas that will remain between Wetland 1 and development areas, invasive woody shrubs and vines will be removed, and native shrubs will be planted such as black chokeberry (*Aronia melanocarpa*), gray dogwood (*Cornus racemosa*), serviceberry (*Amelanchier canadensis*), and nannyberry (*Viburnum lentago*) and undersown with a native New England Conservation/Wildlife seed mix. This mitigation plan will support a variety of wetland functions and values with a focus on increasing flood storage capacity, water quality renovation function, wildlife habitat function, and aesthetics that will support the adjoining riparian corridor.

Wetland Protection Program

As a result of the proposed redevelopment's location in the vicinity of Wetland 1 and its associated watercourse, the following BMPs are provided to avoid unintentional impact to wetland habitats during construction activities.

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. BMPs were developed to avoid unintentional impact to wetlands during construction activities. The proposed Wetland Protection Program consists of several components including: isolation of the development perimeter; periodic inspection and maintenance of erosion

controls and isolation structures; wildlife sweeps; education of all contractors and sub-contractors prior to initiation of work on the site; protective measures; and, reporting.

Provided the wetland protection program is properly implemented during construction, it is APT's opinion the proposed redevelopment will not result in short-term impacts to Wetland 1.

Erosion and Sedimentation Controls

An erosion and sediment control plan has also been designed in accordance with the *2002 Connecticut Guidelines for Soil Erosion and Sediment Control* to protect nearby wetlands and watercourses during construction activities. A variety of erosion and sedimentation controls were developed to avoid temporary impacts to wetland resource areas and represent an important element of the Project to avoid wetland impacts. A general summary of the erosion and sedimentation control plan is provided below.

The Erosion & Sediment Control Plan calls for the use of the latest erosion and sediment control measures in order to minimize and control disturbance during construction and provide a stable site under completed conditions. These measures may include, but are not limited to the following, depending on conditions experienced during construction:

- Stabilized construction entrance
- Geotextile silt fence
- Staked compost filter socks
- Temporary soil stockpile areas
- Temporary water diversion swales
- Temporary seeding of exposed soils
- Erosion control blankets

The BMPs identified in this plan and discussed below include, but are not limited to, providing measures to minimize exposed soil areas through careful sequencing and temporary stabilization; placement of sediment and erosion controls suitable for the type of work and environment; and implementation of appropriate Site restoration and rehabilitation techniques as soon as practicable.

The following general measures will be employed to minimize impacts to the jurisdictional resource areas:

- ▶ The Contractor will be required to maintain a reserve supply of erosion control BMPs on-site for use as required;
- ▶ Protective measures will be inspected regularly and after significant precipitation events and repaired, as necessary;
- ▶ Erosion control measures shall remain in place until soils are clearly stabilized – either by erosion control blankets, or by robust, growing vegetation. Once soils are stable, erosion controls shall be removed and properly disposed; and
- ▶ Erosion controls shall be removed and properly disposed following vegetative colonization of all disturbed soils.

Conclusion

The proposed redevelopment Project has been thoughtfully designed to avoid direct wetland impacts while satisfying the needs of the existing business and safety of its patrons. A comprehensive suite of erosion and sedimentation control measures and protection measure BMPs will be implemented to prevent direct and indirect impacts to nearby wetland resources, Salmon Brook tributary, and the 100-year floodplain. A proposed wetland creation area and enhancement of bordering upland landscape will compensate for unavoidable encroachment into regulated areas through improvement of wildlife habitat, water quality, and flood storage functions. With implementation of these mitigation measures, the proposed Project will not result in a likely adverse impact to nearby wetland resources. These efforts will actually result in an improvement to functions and values supported by the riparian corridor, enhancing this resource.

On behalf of the Applicant, thank you for your consideration of this informal review request and we look forward to discussing this matter with the IWWA at its upcoming meeting. 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

Enclosures

Attachment A
Wetland Inspection Report

July 19, 2022

Updated October 4, 2022

APT Project No.: CT361630

Prepared For: Close, Jensen & Miller, P.C.
1137 Silas Deane Highway
Wethersfield, CT 06109
Attn: Kevin R. Johnson, L.A.

Site Address: 2800 Main Street, 21 & 37A Spring Street
Glastonbury, Connecticut

Dates of Investigation: 5/20/2022 and 9/9/22

Field Conditions: **Weather:** 5/20/22 & 9/9/22 - sunny, mid 70's
Soil Moisture: dry to moist

Wetland/Watercourse Delineation Methodology¹:
Connecticut Inland Wetlands and Watercourses

Municipal Upland Review Area:
Wetlands: 100 feet
Watercourses: 100 feet

The wetlands inspection was performed by²:



Dean Gustafson, Senior Wetland Scientist

Enclosures: Wetland Delineation Field Form & Wetland Inspection Map

This report is provided as a brief summary of findings from APT's wetland investigation of the referenced Study Area that consists of proposed development activities and areas generally within 200 feet.³ If applicable, APT is available to provide a more comprehensive wetland impact analysis upon receipt of site plans depicting the proposed development activities and surveyed location of identified wetland and watercourse resources.

¹ Wetlands and watercourses were delineated in accordance with applicable local, state and federal statutes, regulations and guidance.

² All established wetlands boundary lines are subject to change until officially adopted by local, state, or federal regulatory agencies.

³ APT has relied upon the accuracy of information provided by Close, Jensen & Miller, P.C. regarding proposed subject property location for identifying wetlands and watercourses.

Attachments

- Wetland Delineation Field Form
- Wetland Inspection Map

Wetland Delineation Field Form

Wetland I.D.:	Wetland 1	
Flag #'s:	WF 1-01 to 1-24	
Flag Location Method:	Site Sketch <input checked="" type="checkbox"/>	GPS (sub-meter) located <input checked="" type="checkbox"/>

WETLAND HYDROLOGY:

NONTIDAL

Intermittently Flooded <input checked="" type="checkbox"/>	Artificially Flooded <input type="checkbox"/>	Permanently Flooded <input type="checkbox"/>
Semipermanently Flooded <input type="checkbox"/>	Seasonally Flooded <input checked="" type="checkbox"/>	Temporarily Flooded <input type="checkbox"/>
Permanently Saturated <input type="checkbox"/>	Seasonally Saturated – seepage <input checked="" type="checkbox"/>	Seasonally Saturated - perched <input type="checkbox"/>
Comments: Wetland 1 consists of an unnamed perennial stream with narrow bordering seep wetlands located along the eastern property boundary of 2800 Main Street and the western and northern property boundaries of 21 and 37A Spring Street.		

TIDAL

Subtidal <input type="checkbox"/>	Regularly Flooded <input type="checkbox"/>	Irregularly Flooded <input type="checkbox"/>
Irregularly Flooded <input type="checkbox"/>		
Comments: None		

WETLAND TYPE:

SYSTEM:

Estuarine <input type="checkbox"/>	Riverine <input type="checkbox"/>	Palustrine <input checked="" type="checkbox"/>
Lacustrine <input type="checkbox"/>	Marine <input type="checkbox"/>	
Comments: None		

CLASS:

Emergent <input type="checkbox"/>	Scrub-shrub <input type="checkbox"/>	Forested <input checked="" type="checkbox"/>
Open Water <input type="checkbox"/>	Disturbed <input checked="" type="checkbox"/>	Wet Meadow <input type="checkbox"/>
Comments: None		

WATERCOURSE TYPE:

Perennial <input checked="" type="checkbox"/>	Intermittent <input type="checkbox"/>	Tidal <input type="checkbox"/>
Watercourse Name: Unnamed tributary to Salmon Brook		
Comments: Incised stream with 6-foot-wide channel, gravely cobble bottom, rip rap armored banks that have washed into the channel in some locations. Stream enters into large, corrugated metal pipe culvert near southeast corner of 2800 Main Street parcel, tying into the Spring Street closed drainage system.		

Wetland Delineation Field Form (Cont.)

SPECIAL AQUATIC HABITAT:

Vernal Pool Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Potential <input type="checkbox"/>	Other <input type="checkbox"/>
Vernal Pool Habitat Type: None	
Comments: None	

SOILS:

Are field identified soils consistent with NRCS mapped soils?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>
Field identified soils: the majority of the site consists of Urban land soil unit with some areas not encumbered by pavement or building classified as Udorthents.		

DOMINANT PLANTS:

Red Maple (<i>Acer rubrum</i>)	Multiflora Rose* (<i>Rosa multiflora</i>)
Japanese Knotweed* (<i>Polygonum cuspidatum</i>)	Winged Euonymus* (<i>Euonymus alata</i>)
Winterberry (<i>Ilex verticillata</i>)	Skunk Cabbage (<i>Symplocarpus foetidus</i>)
Spicebush (<i>Lindera benzoin</i>)	Silver Maple (<i>Acer saccharinum</i>)
Northern Arrow-wood (<i>Viburnum recognitum</i>)	Bush Honeysuckles* (<i>Lonicera</i> spp.)
Asiatic Bittersweet* (<i>Celastrus orbiculatus</i>)	

* denotes Connecticut Invasive Species Council invasive plant species

GENERAL COMMENTS:

The site consists of a vacant commercial building at 2800 Main Street with paved parking and landscaping while 21 and 37A Spring Street consists of undeveloped wooded parcels. One wetland was identified along the eastern property boundary of 2800 Main Street and the western and northern portions of the 21 and 37A Sprint Street parcels.

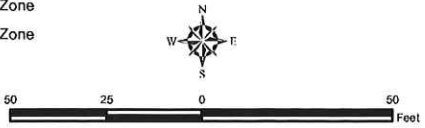
Wetland 1 consists primarily of an unnamed perennial stream tributary to Salmon Brook (located ±500 feet to the south) with narrow bordering seep wetlands. This feature has been subjected to significant anthropogenic changes resulting in an incised and armored stream channel and constriction of what historically is anticipated were broader alluvial wetlands along either bank. A stone retaining wall is located along the east edge of the paved parking lot at the 2800 Main Street parcel, generally forming the western jurisdictional limits of the wetland boundary. The wetland/stream feature consists of moderately open tree canopy with various invasive plants dominating the understory, indicative of the disturbed nature of this wetland. Limited upland buffer is supporting this wetland system due to surrounding commercial and residential developments, including the existing development at 2800 Main Street. The wetland and stream system also conveys stormwater discharges from the surrounding developments including at least two culvert outfalls directing into the stream and one directly into the wetland.

The Town of Glastonbury Inland Wetlands and Watercourse Agency ("IWWA"), regulates activities in wetlands, watercourses and uplands areas within 100 feet of wetlands and watercourses (collectively known as "upland review area"). Any activities within wetlands, watercourses or upland review area would be subject to jurisdiction by the IWWA and require a permit.



- Legend**
- Site
 - Wetland Flag
 - 100-Foot Wetland Upland Review Area
 - Delineated Wetland Boundary
 - Approximate Wetland Area
 - Existing Culvert
 - Perennial Watercourse
 - Perennial Watercourse Bank
 - 100-Year Flood Zone
 - 500-Year Flood Zone
 - Floodway
 - Approximate Parcel Boundary

Map Notes:
 Base Map Source: 2019 CT Aerial Imagery (CTECO)
 Map Scale: 1 inch = 50 feet
 Map Date: September 2022



Wetland Inspection Map
 Proposed Development
 2800 Main Street
 21 & 37A Spring Street
 Glastonbury, Connecticut



Attachment B

Photodocumentation



Photo 1: View of Wetland 1 watercourse channel with stone armoring looking south at 48-inch CMP culvert on 2800 Main Street in background.



Photo 2: View of Wetland 1 watercourse channel with stone armoring looking north.



Photo 3: View of existing culvert on 2800 Main Street parcel conveying flows south under Spring Street looking west.



Photo 4: View of Wetland 1 at WF-18, near area of proposed flood compensatory storage and mitigation area.



Photo 5: View of culvert outfall and headwall of watercourse at south end of Griswold Shoppes property, looking north.



Photo 6: View of direct stormwater discharge into watercourse from Dairy Queen property looking northwest.



Photo 7: View of 2800 Main Street eastern parking area and location of proposed connection to Spring Street parcels looking southeast.



Photo 8: View of existing development at 2800 Main Street parcel looking northwest across Spring Street..



Photo 9: View of 21-37A Spring Street parcels (vegetated area) looking north across Spring Street.



Photo 10: View of foundation remnants on 21-37A Spring Street parcels.