

**STAFF REPORT**  
**Application #IWW-WPL-11945-24**  
**55 Greens Farms Road**  
**Assessor's Map: D06 Tax Lot: 050**  
**Prepared June 25, 2024, revised to July 10, 2024**  
**Public Hearing: July 17, 2024**

**Receipt Date:** June 12, 2024

**Application Classification:** Plenary

**Application Request:** The applicant is requesting to clean portions of the brook to remove built-up sediment and blockages within the stream corridor that inhibit the flow of water. The work will occur within perennial watercourse and within the Waterway Protection Line of Pussy Willow Brook. The project proposes potential direct impacts to the watercourse and associated wetlands.

**Plans Reviewed:**

- a. **“Pussy Willow Brook Cleaning: Phase 1”** (excavation plan), prepared by the Town of Westport Engineering Division, dated June 7, 2024.
- b. **“Pussy Willow Brook – Stream Cleaning”** (cross section), General Detail for the Cleaning of Pussy Willow Brook, prepared by the Town of Westport Engineering Division, dated June 7, 2024.

**Background Information:**

1. WPLO boundary: Established 15 ft. landward from the wetland boundary. The north and east portions of the property are within the WPLO boundary.
2. Property is situated in Flood Zone A as shown on F.I.R.M. Panel 09001C0551G Map revised to July 8, 2013.
3. The site is not within the Aquifer Protection Overlay Zone. Flood & Erosion Control Board approved this application pursuant to the WPLO on July 10, 2024.
4. Coastal Area Management: Property located within CAM zone. The coastal resource identified is coastal hazard area. Coastal hazard areas are defined as those land areas inundated during coastal storm events. A-zones are subject to still-water flooding during “100-year” flood events. Coastal hazard areas serve as flood storage areas. They are, by their nature, hazardous areas for structural development, especially residential type uses. It is located in the Sasco Creek watershed (sub-regional drainage basin (#7109)). Sasco Creek is a perennial watercourse that runs north to south beneath the bridge. The creek empties into Long Island Sound approximately 1.7 river miles downstream of the project area.
5. Property is ~22 acres improved with commercial office buildings and asphalt parking lots within the DDD4 Zone.

**IWW and WPLO Regulated Areas:**

Setbacks determined for this property include a 20’ non-disturbance buffer for excavation. The Waterway Protection Line Boundary is established 15’ landward from the wetland boundary or the top of the bank of the watercourse. The proposed stream cleaning is within the watercourse and review area.

**Wetlands Description: Wetlands Description:** There is no site-specific soil survey or wetland characterization provided for this project.

The USFWS National Wetland Inventory identifies the watercourse as a 0.61 acre riverine habitat, classified as a **R5UBH**.

*“**System Riverine (R):** The Riverine System includes all wetlands and deepwater habitats contained within a channel, with two exceptions: (1) wetlands dominated by trees, shrubs, persistent emergents, emergent mosses, or lichens, and (2) habitats with water containing ocean-derived salts of 0.5 ppt or greater. A channel is an open conduit either naturally or artificially created which periodically or continuously contains moving water, or which forms a connecting link between two bodies of standing water.*

***Subsystem Unknown Perennial (5):** This Subsystem designation was created specifically for use when the distinction between lower perennial, upper perennial, and tidal cannot be made from aerial photography and no data is available.*

***Class Unconsolidated Bottom (UB):** Includes all wetlands and deepwater habitats with at least 25% cover of particles smaller than stones (less than 6-7 cm), and a vegetative cover less than 30%.*

***Water Regime Permanently Flooded (H):** Water covers the substrate throughout the year in all years.”*

The USFWS National Wetland Inventory identifies the southern wetland as 0.46 acre freshwater forested/shrub wetland habitat, classified as a **PFO1E**.

*“**System Palustrine (P):** The Palustrine System includes all nontidal wetlands dominated by trees, shrubs, persistent emergents, emergent mosses or lichens, and all such wetlands that occur in tidal areas where salinity due to ocean-derived salts is below 0.5 ppt. It also includes wetlands lacking such vegetation, but with all of the following four characteristics: (1) area less than 8 ha (20 acres); (2) active wave-formed or bedrock shoreline features lacking; (3) water depth in the deepest part of basin less than 2.5 m (8.2 ft) at low water; and (4) salinity due to ocean-derived salts less than 0.5 ppt.*

***Class Forested (FO):** Characterized by woody vegetation that is 6 m tall or taller.*

***Subclass Broad-Leaved Deciduous (1):** Woody angiosperms (trees or shrubs) with relatively wide, flat leaves that are shed during the cold or dry season; e.g., black ash (*Fraxinus nigra*).*

***Water Regime Seasonally Flooded/Saturated (E):** Surface water is present for extended periods (generally for more than a month) during the growing season, but is absent by the end of the season in most years. When surface water is absent, the substrate typically remains saturated at or near the surface.”*

Conservation Staff referenced USGS Web Soil Survey search results and listed the soils units likely present on the subject property.

***Soils likely found on the property:***

**Udorthents- Urban Land Complex (306):** This complex consists of moderately well drained to excessively drained soils that have been disturbed by cutting or filling, and areas that are covered by buildings and pavement. The complex is approximately 70 percent Udorthents, 20 percent Urban land,

and 10 percent other soils. Udorthents are in areas that have been cut to a depth of two feet or more or are on areas with more than two feet of fill. Udorthents consist primarily of moderately coarse textured soil material and a few small areas of medium textured material.

## **Conformance to Section 6 of the Inland Wetlands and Watercourses Regulations**

### **6.1 GENERAL STANDARDS**

- a) disturbance and pollution are minimized;
- b) minimize height, width, length of structures are limited to the minimum; dimension to accomplish the intended function;
- c) loss of fish, other beneficial organisms, wildlife and vegetation are prevented;
- d) potable fresh water supplies are protected from dangers of drought, overdraft, pollution, misuse and mismanagement;
- e) maintain conservation, economic, recreational and aesthetic qualities;
- f) consider historical sites

#### **Discussion:**

The property is ~22 acres and features two office buildings, paved parking lots and driveways. Pussy Willow Brook is a perennial stream that flows southeast across the northern and eastern property boundaries. Riparian wetlands extend from the margins of the stream channel. The stream and wetland fringe are forested with pockets of emergent wetland within silted branches of the stream. The parking lot extends to within ~10-15 linear feet of the watercourse and wetland in some areas.

At present, the buildup of soft sediment and woody debris is leading to flooding issues across the site where the restricted flow of water causes overtopping of the streambank into the parking lot of the property.

Excavation activity will remove soft sediment down to the historic streambed where sand, gravel and cobble are the predominant substrate types. Two reaches of the stream will be excavated. Segment 1, south of the driveway culvert, will be excavated to a depth of 24" and Segment 2, north of the driveway culvert will be excavated to a depth of 42". Dead woody debris and aquatic vegetation will be removed as a result of the activity. Sediment and debris will be removed and trucked offsite.

The streambed and streambanks will be generally left in their existing condition. Though the wetland and watercourse will be temporarily disturbed in some areas, Staff feels the restoration to a continuously open watercourse will create conditions that are more ecologically beneficial to aquatic fauna than existing conditions.

CT DEEP fisheries community data from nearby Muddy Brook demonstrates a similar perennial stream would be host to various warmwater fish species. During a site visit, Conservation Staff observed fish and frogs in the water column. As Pussy Willow Brook is inventoried in CT ECO mapping as an impaired waterway, water quality protective measures should maintain close to existing water quality in regards to suspended sediment, thermal increases, and dissolved oxygen. Unconfined in-stream work is planned from July 15 to September 15 of 2024.

Excavation with machinery is the proposed method but field conditions may call for alternate methods to be explored. Staff sees the use of a small excavator while limiting travel and number of access points within the wetland boundary as the least impactful and most feasible way to remove the soft sediment.

## **6.2 WATER QUALITY**

- a) flushing rates, freshwater sources, existing basin characteristics and channel contours will not be adversely altered;
- b) water stagnation will neither be contributed nor caused;
- c) water pollution will not affect fauna, flora, physical or chemical nature of a regulated area, or the propagation and habitats of fish and wildlife, will not result;
- d) pollution of groundwater or a significant aquifer will not result (*groundwater recharge area or Aquifer Protection Overlay Zone*);
- e) all applicable state and local health codes shall be met;
- f) water quality will be maintained or improved in accordance with the standards set by federal, state, and local authority including section 25-54(e) of the Connecticut General Statutes
- g) prevents pollution of surface water

### **Discussion:**

The surface water quality classification for the stream (Connecticut Environmental Conditions Online, <http://www.cteco.uconn.edu/>), located on the subject property, is Class A water for Inland Surface Water Class. The Class A designation indicates that the water is suitable habitat for fish other aquatic life and wildlife and recreation.

Staff referenced UConn's CLEAR Local Watershed Assessment Tool. The subject property is located within the Muddy Brook local watershed basin. The local watershed basin (local basin # 7000-16) for Muddy Brook has a combined condition index (CCI) score of 0.19. A CCI score of less than 0.43 indicates the watershed basin may be significantly impaired. The Tool defines Stony Brook's Recovery Status as "Mitigation", identifying that watershed condition can be improved with mitigation efforts such as restoring riparian zones and restoring tree canopy along watercourses.

The project does not specify a method for removal of soft sediment or preventing sediment transport within the water column. The target months of July to September for the proposed activity is an effort to allow the stream to shrink or cease flowing and minimize work within the water column.

Temporary water quality will be adversely affected by in-stream excavation work. Soft sediment is likely to be released into the water column. Staff recommends the Commission require a review of S&E controls prior to the start of work. Long term water quality of the perennial stream should improve locally as a result of reduced flooding onto the asphalt parking lot. Flood waters discharging from parking lots can pick up contaminants and pollutants and cause localized temperature increases of the surface water.

## **6.3 EROSION AND SEDIMENT**

- a) temporary erosion control measures shall be utilized during construction and for the stabilization period following construction;
- b) permanent erosion control measures shall be utilized using nonstructural alternatives whenever possible and structural alternatives when avoidable;

- c) existing circulation patterns, water velocity, or exposure to storm and flood conditions shall not be adversely altered;
- d) formation of deposits harmful to aquatic life and or wetlands habitat will not occur;
- e) applicable state, federal and local guidelines shall be met.

**Discussion:**

The project does not specify the utilization of S&E controls for this project. Staff recommends the use of timber mats for machine access and sediment booms deployed downstream of the site activity to be considered prior to the start of work. Staff recommends the Commission require review of S&E methods prior to the start of work. Staff will reserve the right to request additional S&E controls upon observation of the work in progress. Staff recommends that work not be completed with rain within the 3-day forecast from target work days.

**6.4 NATURAL HABITAT STANDARDS**

- a) critical habitats areas,
- b) the existing biological productivity of any Wetland and Watercourse shall be maintained or improved;
- c) breeding, nesting and or feeding habitats of wildlife will not be significantly altered;
- d) movements and lifestyles of fish and wildlife (plant and aquatic life) will not be significantly affected;
- e) periods of seasonal fish runs and bird migrations shall not be impeded;
- f) conservation or open space easements will be deeded whenever appropriate to protect these natural habitats.

**Discussion:**

A preliminary staff review of current data maintained by the Natural Diversity Database (NDDB) and housed in the DEEP ezFile portal, demonstrated that no populations of State Endangered, Threatened, or Special Concern species (RCA Sec. 26-306), and no Critical Habitats have been documented within or in close proximity to the project area. Staff feels there will be no impacts to state listed species or critical habitat as a result of the proposed project. Staff does not recommend any further consultation with state or federal agencies for potential impacts to T&E species or critical habitats.

Staff references CT DEEP fish community data which demonstrates that American eel, bluegill sunfish, creek chub, goldfish, and banded killifish were surveyed within a sampling reach of Muddy Brook in 1990. Data from this sampling station, which is about one mile to the east of the subject property, indicate that American eel is the most abundant species and that the reach that is within the project area is suitable for the passage of diadromous fish species, species that spend part of their life cycles migrating between salt and fresh water. Fish data indicates that the habitat is suitable for warmwater species.

<b>FISH COMMUNITY of Muddy Brook at Station # 16025</b>	<b>Longitude: -73.3293710556 Latitude: 41.1275758889</b>
<b>Species</b>	<b>Count</b>
American Eel	27
Bluegill Sunfish	2

Creek Chub	6
Goldfish	1
Banded Killifish	3

\*Source: CT ECO- CT ` Fish Community Data - Inland Waters (<https://cteco.uconn.edu/projects/fish/viewer/index.html>)

This portion of the stream is minimally influenced by tidal fluctuation, but some diadromous species such as American eel and banded killifish are expected to be found within the project area. The project does not propose to obstruct fish passage. If water is flowing at the time of the start of work, it will not be diverted or dammed in any way.

### 6.5 DISCHARGE AND RUNOFF

- a) the potential for flood damage on adjacent or adjoining properties will not be increased;
- b) the velocity or volume of flood waters both into and out of Wetlands and Watercourses will not be adversely altered;
- c) the capacity of any wetland or watercourse to transmit or absorb flood waters will not be significantly reduced;
- d) flooding upstream or downstream of the location site will not be significantly increased;
- e) the activity is acceptable to the Flood & Erosion Control Board and or the Town Engineer of the municipality of Westport

#### Discussion:

The Flood and Erosion Board approved this project at their meeting on July 10, 2024.

The project proposes to significantly increase the carrying capacity of the stream in the reaches immediately upstream and downstream of the driveway culvert. This will help reduce the amount of backwatering during flood events because the increased water volume will be less constricted during periods of excessive discharge and runoff. Staff feels this proposal will not cause adverse impacts to the capacity of any wetland or watercourse to transmit or absorb flood waters, will not increase flooding and will not adversely affect the velocity of flood waters into and out of the wetlands.

### 6.6 RECREATIONAL AND PUBLIC USES

- a) access to and use of public recreational and open space facilities, both existing and planned, will not be prevented;
- b) navigable channels and or small craft navigation will not be obstructed;
- c) open space, recreational or other easements will be deeded whenever appropriate to protect these existing or potential recreational or public uses;
- d) wetlands and watercourses held in public trust will not be adversely affected.

#### Discussion:

The proposed excavation will not affect recreational or public uses.

### Waterway Protection Line Ordinance

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

*habitat diversity, viability and productivity and the natural rates and processes of erosion and sedimentation.*

The Waterway Protection Line boundary is established 15' from the wetland boundary or the top of bank of the watercourse corridor. The Flood & Erosion Control Board has approved this application on July 10, 2024 with standard conditions. Staff supports the Town's efforts to maintain its waterways for the safety of its citizens. The clearing of the soft sediment and debris will reduce the amount of water backed up into the parking lot during major storm events. This should enhance how the site is able to transmit or absorb flood water. Staff feels that long-term improvement of waterflow will reduce the frequency of flooding and enhance stormwater quality. Staff feels the stream cleaning will not significantly impact resources as they are protected under the Waterway Protection Line Ordinance.

Alternatives for reduction of impacts:

1. No build alternative.
2. Approve Application with the following modifications to plans listed above:
  - a) The permittee shall submit an S&E plan prior to the start of work for Conservation Department Review. The Commission recommends the use of timber matting for excavator use in the wetland and turbidity curtain to be deployed downstream of the work area. The Commission recommends the restriction of in-stream work if rain is in the 3-day forecast.
  - b) The permittee shall contact the Conservation Department to meet on the subject property at the start of work to observe the regulated activity. The Department reserves the right to request additional S&E controls if warranted.

**STAFF REPORT**  
**Application #IWW-WPL-11945-24**  
**55 Greens Farms Road**  
**Assessor's Map: D06 Tax Lot: 050**  
**Prepared June 25, 2024, revised to July 10, 2024**  
**Public Hearing: July 17, 2024**

**Receipt Date:** June 12, 2024

**Application Classification:** Plenary

**Application Request:** The applicant is requesting to clean portions of the brook to remove built-up sediment and blockages within the stream corridor that inhibit the flow of water. The work will occur within perennial watercourse and within the Waterway Protection Line of Pussy Willow Brook. The project proposes potential direct impacts to the watercourse and associated wetlands.

**Plans Reviewed:**

- a. **“Pussy Willow Brook Cleaning: Phase 1”** (excavation plan), prepared by the Town of Westport Engineering Division, dated June 7, 2024.
- b. **“Pussy Willow Brook – Stream Cleaning”** (cross section), General Detail for the Cleaning of Pussy Willow Brook, prepared by the Town of Westport Engineering Division, dated June 7, 2024.

**Background Information:**

1. WPLO boundary: Established 15 ft. landward from the wetland boundary. The north and east portions of the property are within the WPLO boundary.
2. Property is situated in Flood Zone A as shown on F.I.R.M. Panel 09001C0551G Map revised to July 8, 2013.
3. The site is not within the Aquifer Protection Overlay Zone. Flood & Erosion Control Board approved this application pursuant to the WPLO on July 10, 2024.
4. Coastal Area Management: Property located within CAM zone. The coastal resource identified is coastal hazard area. Coastal hazard areas are defined as those land areas inundated during coastal storm events. A-zones are subject to still-water flooding during “100-year” flood events. Coastal hazard areas serve as flood storage areas. They are, by their nature, hazardous areas for structural development, especially residential type uses. It is located in the Sasco Creek watershed (sub-regional drainage basin (#7109)). Sasco Creek is a perennial watercourse that runs north to south beneath the bridge. The creek empties into Long Island Sound approximately 1.7 river miles downstream of the project area.
5. Property is ~22 acres improved with commercial office buildings and asphalt parking lots within the DDD4 Zone.

**IWW and WPLO Regulated Areas:**

Setbacks determined for this property include a 20’ non-disturbance buffer for excavation. The Waterway Protection Line Boundary is established 15’ landward from the wetland boundary or the top of the bank of the watercourse. The proposed stream cleaning is within the watercourse and review area.

**Wetlands Description: Wetlands Description:** There is no site-specific soil survey or wetland characterization provided for this project.

The USFWS National Wetland Inventory identifies the watercourse as a 0.61 acre riverine habitat, classified as a **R5UBH**.

*“**System Riverine (R):** The Riverine System includes all wetlands and deepwater habitats contained within a channel, with two exceptions: (1) wetlands dominated by trees, shrubs, persistent emergents, emergent mosses, or lichens, and (2) habitats with water containing ocean-derived salts of 0.5 ppt or greater. A channel is an open conduit either naturally or artificially created which periodically or continuously contains moving water, or which forms a connecting link between two bodies of standing water.*

***Subsystem Unknown Perennial (5):** This Subsystem designation was created specifically for use when the distinction between lower perennial, upper perennial, and tidal cannot be made from aerial photography and no data is available.*

***Class Unconsolidated Bottom (UB):** Includes all wetlands and deepwater habitats with at least 25% cover of particles smaller than stones (less than 6-7 cm), and a vegetative cover less than 30%.*

***Water Regime Permanently Flooded (H):** Water covers the substrate throughout the year in all years.”*

The USFWS National Wetland Inventory identifies the southern wetland as 0.46 acre freshwater forested/shrub wetland habitat, classified as a **PFO1E**.

*“**System Palustrine (P):** The Palustrine System includes all nontidal wetlands dominated by trees, shrubs, persistent emergents, emergent mosses or lichens, and all such wetlands that occur in tidal areas where salinity due to ocean-derived salts is below 0.5 ppt. It also includes wetlands lacking such vegetation, but with all of the following four characteristics: (1) area less than 8 ha (20 acres); (2) active wave-formed or bedrock shoreline features lacking; (3) water depth in the deepest part of basin less than 2.5 m (8.2 ft) at low water; and (4) salinity due to ocean-derived salts less than 0.5 ppt.*

***Class Forested (FO):** Characterized by woody vegetation that is 6 m tall or taller.*

***Subclass Broad-Leaved Deciduous (1):** Woody angiosperms (trees or shrubs) with relatively wide, flat leaves that are shed during the cold or dry season; e.g., black ash (*Fraxinus nigra*).*

***Water Regime Seasonally Flooded/Saturated (E):** Surface water is present for extended periods (generally for more than a month) during the growing season, but is absent by the end of the season in most years. When surface water is absent, the substrate typically remains saturated at or near the surface.”*

Conservation Staff referenced USGS Web Soil Survey search results and listed the soils units likely present on the subject property.

***Soils likely found on the property:***

**Udorthents- Urban Land Complex (306):** This complex consists of moderately well drained to excessively drained soils that have been disturbed by cutting or filling, and areas that are covered by buildings and pavement. The complex is approximately 70 percent Udorthents, 20 percent Urban land,

and 10 percent other soils. Udorthents are in areas that have been cut to a depth of two feet or more or are on areas with more than two feet of fill. Udorthents consist primarily of moderately coarse textured soil material and a few small areas of medium textured material.

## **Conformance to Section 6 of the Inland Wetlands and Watercourses Regulations**

### **6.1 GENERAL STANDARDS**

- a) disturbance and pollution are minimized;
- b) minimize height, width, length of structures are limited to the minimum; dimension to accomplish the intended function;
- c) loss of fish, other beneficial organisms, wildlife and vegetation are prevented;
- d) potable fresh water supplies are protected from dangers of drought, overdraft, pollution, misuse and mismanagement;
- e) maintain conservation, economic, recreational and aesthetic qualities;
- f) consider historical sites

#### **Discussion:**

The property is ~22 acres and features two office buildings, paved parking lots and driveways. Pussy Willow Brook is a perennial stream that flows southeast across the northern and eastern property boundaries. Riparian wetlands extend from the margins of the stream channel. The stream and wetland fringe are forested with pockets of emergent wetland within silted branches of the stream. The parking lot extends to within ~10-15 linear feet of the watercourse and wetland in some areas.

At present, the buildup of soft sediment and woody debris is leading to flooding issues across the site where the restricted flow of water causes overtopping of the streambank into the parking lot of the property.

Excavation activity will remove soft sediment down to the historic streambed where sand, gravel and cobble are the predominant substrate types. Two reaches of the stream will be excavated. Segment 1, south of the driveway culvert, will be excavated to a depth of 24” and Segment 2, north of the driveway culvert will be excavated to a depth of 42”. Dead woody debris and aquatic vegetation will be removed as a result of the activity. Sediment and debris will be removed and trucked offsite.

The streambed and streambanks will be generally left in their existing condition. Though the wetland and watercourse will be temporarily disturbed in some areas, Staff feels the restoration to a continuously open watercourse will create conditions that are more ecologically beneficial to aquatic fauna than existing conditions.

CT DEEP fisheries community data from nearby Muddy Brook demonstrates a similar perennial stream would be host to various warmwater fish species. During a site visit, Conservation Staff observed fish and frogs in the water column. As Pussy Willow Brook is inventoried in CT ECO mapping as an impaired waterway, water quality protective measures should maintain close to existing water quality in regards to suspended sediment, thermal increases, and dissolved oxygen. Unconfined in-stream work is planned from July 15 to September 15 of 2024.

Excavation with machinery is the proposed method but field conditions may call for alternate methods to be explored. Staff sees the use of a small excavator while limiting travel and number of access points within the wetland boundary as the least impactful and most feasible way to remove the soft sediment.

## 6.2 WATER QUALITY

- a) flushing rates, freshwater sources, existing basin characteristics and channel contours will not be adversely altered;
- b) water stagnation will neither be contributed nor caused;
- c) water pollution will not affect fauna, flora, physical or chemical nature of a regulated area, or the propagation and habitats of fish and wildlife, will not result;
- d) pollution of groundwater or a significant aquifer will not result (*groundwater recharge area or Aquifer Protection Overlay Zone*);
- e) all applicable state and local health codes shall be met;
- f) water quality will be maintained or improved in accordance with the standards set by federal, state, and local authority including section 25-54(e) of the Connecticut General Statutes
- g) prevents pollution of surface water

### Discussion:

The surface water quality classification for the stream (Connecticut Environmental Conditions Online, <http://www.cteco.uconn.edu/>), located on the subject property, is Class A water for Inland Surface Water Class. The Class A designation indicates that the water is suitable habitat for fish other aquatic life and wildlife and recreation.

Staff referenced UConn's CLEAR Local Watershed Assessment Tool. The subject property is located within the Muddy Brook local watershed basin. The local watershed basin (local basin # 7000-16) for Muddy Brook has a combined condition index (CCI) score of 0.19. A CCI score of less than 0.43 indicates the watershed basin may be significantly impaired. The Tool defines Stony Brook's Recovery Status as "Mitigation", identifying that watershed condition can be improved with mitigation efforts such as restoring riparian zones and restoring tree canopy along watercourses.

The project does not specify a method for removal of soft sediment or preventing sediment transport within the water column. The target months of July to September for the proposed activity is an effort to allow the stream to shrink or cease flowing and minimize work within the water column.

Temporary water quality will be adversely affected by in-stream excavation work. Soft sediment is likely to be released into the water column. Staff recommends the Commission require a review of S&E controls prior to the start of work. Long term water quality of the perennial stream should improve locally as a result of reduced flooding onto the asphalt parking lot. Flood waters discharging from parking lots can pick up contaminants and pollutants and cause localized temperature increases of the surface water.

## 6.3 EROSION AND SEDIMENT

- a) temporary erosion control measures shall be utilized during construction and for the stabilization period following construction;
- b) permanent erosion control measures shall be utilized using nonstructural alternatives whenever possible and structural alternatives when avoidable;

- c) existing circulation patterns, water velocity, or exposure to storm and flood conditions shall not be adversely altered;
- d) formation of deposits harmful to aquatic life and or wetlands habitat will not occur;
- e) applicable state, federal and local guidelines shall be met.

**Discussion:**

The project does not specify the utilization of S&E controls for this project. Staff recommends the use of timber mats for machine access and sediment booms deployed downstream of the site activity to be considered prior to the start of work. Staff recommends the Commission require review of S&E methods prior to the start of work. Staff will reserve the right to request additional S&E controls upon observation of the work in progress. Staff recommends that work not be completed with rain within the 3-day forecast from target work days.

**6.4 NATURAL HABITAT STANDARDS**

- a) critical habitats areas,
- b) the existing biological productivity of any Wetland and Watercourse shall be maintained or improved;
- c) breeding, nesting and or feeding habitats of wildlife will not be significantly altered;
- d) movements and lifestyles of fish and wildlife (plant and aquatic life) will not be significantly affected;
- e) periods of seasonal fish runs and bird migrations shall not be impeded;
- f) conservation or open space easements will be deeded whenever appropriate to protect these natural habitats.

**Discussion:**

A preliminary staff review of current data maintained by the Natural Diversity Database (NDDB) and housed in the DEEP ezFile portal, demonstrated that no populations of State Endangered, Threatened, or Special Concern species (RCA Sec. 26-306), and no Critical Habitats have been documented within or in close proximity to the project area. Staff feels there will be no impacts to state listed species or critical habitat as a result of the proposed project. Staff does not recommend any further consultation with state or federal agencies for potential impacts to T&E species or critical habitats.

Staff references CT DEEP fish community data which demonstrates that American eel, bluegill sunfish, creek chub, goldfish, and banded killifish were surveyed within a sampling reach of Muddy Brook in 1990. Data from this sampling station, which is about one mile to the east of the subject property, indicate that American eel is the most abundant species and that the reach that is within the project area is suitable for the passage of diadromous fish species, species that spend part of their life cycles migrating between salt and fresh water. Fish data indicates that the habitat is suitable for warmwater species.

<b>FISH COMMUNITY of Muddy Brook at Station # 16025</b>	<b>Longitude: -73.3293710556 Latitude: 41.1275758889</b>
<b>Species</b>	<b>Count</b>
American Eel	27
Bluegill Sunfish	2

Creek Chub	6
Goldfish	1
Banded Killifish	3

\*Source: CT ECO- CT ` Fish Community Data - Inland Waters (<https://cteco.uconn.edu/projects/fish/viewer/index.html>)

This portion of the stream is minimally influenced by tidal fluctuation, but some diadromous species such as American eel and banded killifish are expected to be found within the project area. The project does not propose to obstruct fish passage. If water is flowing at the time of the start of work, it will not be diverted or dammed in any way.

### 6.5 DISCHARGE AND RUNOFF

- a) the potential for flood damage on adjacent or adjoining properties will not be increased;
- b) the velocity or volume of flood waters both into and out of Wetlands and Watercourses will not be adversely altered;
- c) the capacity of any wetland or watercourse to transmit or absorb flood waters will not be significantly reduced;
- d) flooding upstream or downstream of the location site will not be significantly increased;
- e) the activity is acceptable to the Flood & Erosion Control Board and or the Town Engineer of the municipality of Westport

#### Discussion:

The Flood and Erosion Board approved this project at their meeting on July 10, 2024. The project proposes to significantly increase the carrying capacity of the stream in the reaches immediately upstream and downstream of the driveway culvert. This will help reduce the amount of backwatering during flood events because the increased water volume will be less constricted during periods of excessive discharge and runoff. Staff feels this proposal will not cause adverse impacts to the capacity of any wetland or watercourse to transmit or absorb flood waters, will not increase flooding and will not adversely affect the velocity of flood waters into and out of the wetlands.

### 6.6 RECREATIONAL AND PUBLIC USES

- a) access to and use of public recreational and open space facilities, both existing and planned, will not be prevented;
- b) navigable channels and or small craft navigation will not be obstructed;
- c) open space, recreational or other easements will be deeded whenever appropriate to protect these existing or potential recreational or public uses;
- d) wetlands and watercourses held in public trust will not be adversely affected.

#### Discussion:

The proposed excavation will not affect recreational or public uses.

### Waterway Protection Line Ordinance

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

*habitat diversity, viability and productivity and the natural rates and processes of erosion and sedimentation.*

The Waterway Protection Line boundary is established 15' from the wetland boundary or the top of bank of the watercourse corridor. The Flood & Erosion Control Board has approved this application on July 10, 2024 with standard conditions. Staff supports the Town's efforts to maintain its waterways for the safety of its citizens. The clearing of the soft sediment and debris will reduce the amount of water backed up into the parking lot during major storm events. This should enhance how the site is able to transmit or absorb flood water. Staff feels that long-term improvement of waterflow will reduce the frequency of flooding and enhance stormwater quality. Staff feels the stream cleaning will not significantly impact resources as they are protected under the Waterway Protection Line Ordinance.

Alternatives for reduction of impacts:

1. No build alternative.
2. Approve Application with the following modifications to plans listed above:
  - a) The permittee shall submit an S&E plan prior to the start of work for Conservation Department Review. The Commission recommends the use of timber matting for excavator use in the wetland and turbidity curtain to be deployed downstream of the work area. The Commission recommends the restriction of in-stream work if rain is in the 3-day forecast.
  - b) The permittee shall contact the Conservation Department to meet on the subject property at the start of work to observe the regulated activity. The Department reserves the right to request additional S&E controls if warranted.

**STAFF REPORT**  
**Application #IWW-WPL-11945-24**  
**55 Greens Farms Road**  
**Assessor's Map: D06 Tax Lot: 050**  
**Prepared June 25, 2024, revised to July 10, 2024**  
**Public Hearing: July 17, 2024**

**Receipt Date:** June 12, 2024

**Application Classification:** Plenary

**Application Request:** The applicant is requesting to clean portions of the brook to remove built-up sediment and blockages within the stream corridor that inhibit the flow of water. The work will occur within perennial watercourse and within the Waterway Protection Line of Pussy Willow Brook. The project proposes potential direct impacts to the watercourse and associated wetlands.

**Plans Reviewed:**

- a. **“Pussy Willow Brook Cleaning: Phase 1”** (excavation plan), prepared by the Town of Westport Engineering Division, dated June 7, 2024.
- b. **“Pussy Willow Brook – Stream Cleaning”** (cross section), General Detail for the Cleaning of Pussy Willow Brook, prepared by the Town of Westport Engineering Division, dated June 7, 2024.

**Background Information:**

1. WPLO boundary: Established 15 ft. landward from the wetland boundary. The north and east portions of the property are within the WPLO boundary.
2. Property is situated in Flood Zone A as shown on F.I.R.M. Panel 09001C0551G Map revised to July 8, 2013.
3. The site is not within the Aquifer Protection Overlay Zone. Flood & Erosion Control Board approved this application pursuant to the WPLO on July 10, 2024.
4. Coastal Area Management: Property located within CAM zone. The coastal resource identified is coastal hazard area. Coastal hazard areas are defined as those land areas inundated during coastal storm events. A-zones are subject to still-water flooding during “100-year” flood events. Coastal hazard areas serve as flood storage areas. They are, by their nature, hazardous areas for structural development, especially residential type uses. It is located in the Sasco Creek watershed (sub-regional drainage basin (#7109)). Sasco Creek is a perennial watercourse that runs north to south beneath the bridge. The creek empties into Long Island Sound approximately 1.7 river miles downstream of the project area.
5. Property is ~22 acres improved with commercial office buildings and asphalt parking lots within the DDD4 Zone.

**IWW and WPLO Regulated Areas:**

Setbacks determined for this property include a 20’ non-disturbance buffer for excavation. The Waterway Protection Line Boundary is established 15’ landward from the wetland boundary or the top of the bank of the watercourse. The proposed stream cleaning is within the watercourse and review area.

**Wetlands Description: Wetlands Description:** There is no site-specific soil survey or wetland characterization provided for this project.

The USFWS National Wetland Inventory identifies the watercourse as a 0.61 acre riverine habitat, classified as a **R5UBH**.

*“**System Riverine (R):** The Riverine System includes all wetlands and deepwater habitats contained within a channel, with two exceptions: (1) wetlands dominated by trees, shrubs, persistent emergents, emergent mosses, or lichens, and (2) habitats with water containing ocean-derived salts of 0.5 ppt or greater. A channel is an open conduit either naturally or artificially created which periodically or continuously contains moving water, or which forms a connecting link between two bodies of standing water.*

***Subsystem Unknown Perennial (5):** This Subsystem designation was created specifically for use when the distinction between lower perennial, upper perennial, and tidal cannot be made from aerial photography and no data is available.*

***Class Unconsolidated Bottom (UB):** Includes all wetlands and deepwater habitats with at least 25% cover of particles smaller than stones (less than 6-7 cm), and a vegetative cover less than 30%.*

***Water Regime Permanently Flooded (H):** Water covers the substrate throughout the year in all years.”*

The USFWS National Wetland Inventory identifies the southern wetland as 0.46 acre freshwater forested/shrub wetland habitat, classified as a **PFO1E**.

*“**System Palustrine (P):** The Palustrine System includes all nontidal wetlands dominated by trees, shrubs, persistent emergents, emergent mosses or lichens, and all such wetlands that occur in tidal areas where salinity due to ocean-derived salts is below 0.5 ppt. It also includes wetlands lacking such vegetation, but with all of the following four characteristics: (1) area less than 8 ha (20 acres); (2) active wave-formed or bedrock shoreline features lacking; (3) water depth in the deepest part of basin less than 2.5 m (8.2 ft) at low water; and (4) salinity due to ocean-derived salts less than 0.5 ppt.*

***Class Forested (FO):** Characterized by woody vegetation that is 6 m tall or taller.*

***Subclass Broad-Leaved Deciduous (1):** Woody angiosperms (trees or shrubs) with relatively wide, flat leaves that are shed during the cold or dry season; e.g., black ash (*Fraxinus nigra*).*

***Water Regime Seasonally Flooded/Saturated (E):** Surface water is present for extended periods (generally for more than a month) during the growing season, but is absent by the end of the season in most years. When surface water is absent, the substrate typically remains saturated at or near the surface.”*

Conservation Staff referenced USGS Web Soil Survey search results and listed the soils units likely present on the subject property.

***Soils likely found on the property:***

**Udorthents- Urban Land Complex (306):** This complex consists of moderately well drained to excessively drained soils that have been disturbed by cutting or filling, and areas that are covered by buildings and pavement. The complex is approximately 70 percent Udorthents, 20 percent Urban land,

and 10 percent other soils. Udorthents are in areas that have been cut to a depth of two feet or more or are on areas with more than two feet of fill. Udorthents consist primarily of moderately coarse textured soil material and a few small areas of medium textured material.

## **Conformance to Section 6 of the Inland Wetlands and Watercourses Regulations**

### **6.1 GENERAL STANDARDS**

- a) disturbance and pollution are minimized;
- b) minimize height, width, length of structures are limited to the minimum; dimension to accomplish the intended function;
- c) loss of fish, other beneficial organisms, wildlife and vegetation are prevented;
- d) potable fresh water supplies are protected from dangers of drought, overdraft, pollution, misuse and mismanagement;
- e) maintain conservation, economic, recreational and aesthetic qualities;
- f) consider historical sites

#### **Discussion:**

The property is ~22 acres and features two office buildings, paved parking lots and driveways. Pussy Willow Brook is a perennial stream that flows southeast across the northern and eastern property boundaries. Riparian wetlands extend from the margins of the stream channel. The stream and wetland fringe are forested with pockets of emergent wetland within silted branches of the stream. The parking lot extends to within ~10-15 linear feet of the watercourse and wetland in some areas.

At present, the buildup of soft sediment and woody debris is leading to flooding issues across the site where the restricted flow of water causes overtopping of the streambank into the parking lot of the property.

Excavation activity will remove soft sediment down to the historic streambed where sand, gravel and cobble are the predominant substrate types. Two reaches of the stream will be excavated. Segment 1, south of the driveway culvert, will be excavated to a depth of 24" and Segment 2, north of the driveway culvert will be excavated to a depth of 42". Dead woody debris and aquatic vegetation will be removed as a result of the activity. Sediment and debris will be removed and trucked offsite.

The streambed and streambanks will be generally left in their existing condition. Though the wetland and watercourse will be temporarily disturbed in some areas, Staff feels the restoration to a continuously open watercourse will create conditions that are more ecologically beneficial to aquatic fauna than existing conditions.

CT DEEP fisheries community data from nearby Muddy Brook demonstrates a similar perennial stream would be host to various warmwater fish species. During a site visit, Conservation Staff observed fish and frogs in the water column. As Pussy Willow Brook is inventoried in CT ECO mapping as an impaired waterway, water quality protective measures should maintain close to existing water quality in regards to suspended sediment, thermal increases, and dissolved oxygen. Unconfined in-stream work is planned from July 15 to September 15 of 2024.

Excavation with machinery is the proposed method but field conditions may call for alternate methods to be explored. Staff sees the use of a small excavator while limiting travel and number of access points within the wetland boundary as the least impactful and most feasible way to remove the soft sediment.

## 6.2 WATER QUALITY

- a) flushing rates, freshwater sources, existing basin characteristics and channel contours will not be adversely altered;
- b) water stagnation will neither be contributed nor caused;
- c) water pollution will not affect fauna, flora, physical or chemical nature of a regulated area, or the propagation and habitats of fish and wildlife, will not result;
- d) pollution of groundwater or a significant aquifer will not result (*groundwater recharge area or Aquifer Protection Overlay Zone*);
- e) all applicable state and local health codes shall be met;
- f) water quality will be maintained or improved in accordance with the standards set by federal, state, and local authority including section 25-54(e) of the Connecticut General Statutes
- g) prevents pollution of surface water

### Discussion:

The surface water quality classification for the stream (Connecticut Environmental Conditions Online, <http://www.cteco.uconn.edu/>), located on the subject property, is Class A water for Inland Surface Water Class. The Class A designation indicates that the water is suitable habitat for fish other aquatic life and wildlife and recreation.

Staff referenced UConn's CLEAR Local Watershed Assessment Tool. The subject property is located within the Muddy Brook local watershed basin. The local watershed basin (local basin # 7000-16) for Muddy Brook has a combined condition index (CCI) score of 0.19. A CCI score of less than 0.43 indicates the watershed basin may be significantly impaired. The Tool defines Stony Brook's Recovery Status as "Mitigation", identifying that watershed condition can be improved with mitigation efforts such as restoring riparian zones and restoring tree canopy along watercourses.

The project does not specify a method for removal of soft sediment or preventing sediment transport within the water column. The target months of July to September for the proposed activity is an effort to allow the stream to shrink or cease flowing and minimize work within the water column.

Temporary water quality will be adversely affected by in-stream excavation work. Soft sediment is likely to be released into the water column. Staff recommends the Commission require a review of S&E controls prior to the start of work. Long term water quality of the perennial stream should improve locally as a result of reduced flooding onto the asphalt parking lot. Flood waters discharging from parking lots can pick up contaminants and pollutants and cause localized temperature increases of the surface water.

## 6.3 EROSION AND SEDIMENT

- a) temporary erosion control measures shall be utilized during construction and for the stabilization period following construction;
- b) permanent erosion control measures shall be utilized using nonstructural alternatives whenever possible and structural alternatives when avoidable;

- c) existing circulation patterns, water velocity, or exposure to storm and flood conditions shall not be adversely altered;
- d) formation of deposits harmful to aquatic life and or wetlands habitat will not occur;
- e) applicable state, federal and local guidelines shall be met.

**Discussion:**

The project does not specify the utilization of S&E controls for this project. Staff recommends the use of timber mats for machine access and sediment booms deployed downstream of the site activity to be considered prior to the start of work. Staff recommends the Commission require review of S&E methods prior to the start of work. Staff will reserve the right to request additional S&E controls upon observation of the work in progress. Staff recommends that work not be completed with rain within the 3-day forecast from target work days.

**6.4 NATURAL HABITAT STANDARDS**

- a) critical habitats areas,
- b) the existing biological productivity of any Wetland and Watercourse shall be maintained or improved;
- c) breeding, nesting and or feeding habitats of wildlife will not be significantly altered;
- d) movements and lifestyles of fish and wildlife (plant and aquatic life) will not be significantly affected;
- e) periods of seasonal fish runs and bird migrations shall not be impeded;
- f) conservation or open space easements will be deeded whenever appropriate to protect these natural habitats.

**Discussion:**

A preliminary staff review of current data maintained by the Natural Diversity Database (NDDB) and housed in the DEEP ezFile portal, demonstrated that no populations of State Endangered, Threatened, or Special Concern species (RCA Sec. 26-306), and no Critical Habitats have been documented within or in close proximity to the project area. Staff feels there will be no impacts to state listed species or critical habitat as a result of the proposed project. Staff does not recommend any further consultation with state or federal agencies for potential impacts to T&E species or critical habitats.

Staff references CT DEEP fish community data which demonstrates that American eel, bluegill sunfish, creek chub, goldfish, and banded killifish were surveyed within a sampling reach of Muddy Brook in 1990. Data from this sampling station, which is about one mile to the east of the subject property, indicate that American eel is the most abundant species and that the reach that is within the project area is suitable for the passage of diadromous fish species, species that spend part of their life cycles migrating between salt and fresh water. Fish data indicates that the habitat is suitable for warmwater species.

<b>FISH COMMUNITY of Muddy Brook at Station # 16025</b>	<b>Longitude: -73.3293710556 Latitude: 41.1275758889</b>
<b>Species</b>	<b>Count</b>
American Eel	27
Bluegill Sunfish	2

Creek Chub	6
Goldfish	1
Banded Killifish	3

\*Source: CT ECO- CT ` Fish Community Data - Inland Waters (<https://cteco.uconn.edu/projects/fish/viewer/index.html>)

This portion of the stream is minimally influenced by tidal fluctuation, but some diadromous species such as American eel and banded killifish are expected to be found within the project area. The project does not propose to obstruct fish passage. If water is flowing at the time of the start of work, it will not be diverted or dammed in any way.

### 6.5 DISCHARGE AND RUNOFF

- a) the potential for flood damage on adjacent or adjoining properties will not be increased;
- b) the velocity or volume of flood waters both into and out of Wetlands and Watercourses will not be adversely altered;
- c) the capacity of any wetland or watercourse to transmit or absorb flood waters will not be significantly reduced;
- d) flooding upstream or downstream of the location site will not be significantly increased;
- e) the activity is acceptable to the Flood & Erosion Control Board and or the Town Engineer of the municipality of Westport

#### Discussion:

The Flood and Erosion Board approved this project at their meeting on July 10, 2024.

The project proposes to significantly increase the carrying capacity of the stream in the reaches immediately upstream and downstream of the driveway culvert. This will help reduce the amount of backwatering during flood events because the increased water volume will be less constricted during periods of excessive discharge and runoff. Staff feels this proposal will not cause adverse impacts to the capacity of any wetland or watercourse to transmit or absorb flood waters, will not increase flooding and will not adversely affect the velocity of flood waters into and out of the wetlands.

### 6.6 RECREATIONAL AND PUBLIC USES

- a) access to and use of public recreational and open space facilities, both existing and planned, will not be prevented;
- b) navigable channels and or small craft navigation will not be obstructed;
- c) open space, recreational or other easements will be deeded whenever appropriate to protect these existing or potential recreational or public uses;
- d) wetlands and watercourses held in public trust will not be adversely affected.

#### Discussion:

The proposed excavation will not affect recreational or public uses.

### Waterway Protection Line Ordinance

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

*habitat diversity, viability and productivity and the natural rates and processes of erosion and sedimentation.*

The Waterway Protection Line boundary is established 15' from the wetland boundary or the top of bank of the watercourse corridor. The Flood & Erosion Control Board has approved this application on July 10, 2024 with standard conditions. Staff supports the Town's efforts to maintain its waterways for the safety of its citizens. The clearing of the soft sediment and debris will reduce the amount of water backed up into the parking lot during major storm events. This should enhance how the site is able to transmit or absorb flood water. Staff feels that long-term improvement of waterflow will reduce the frequency of flooding and enhance stormwater quality. Staff feels the stream cleaning will not significantly impact resources as they are protected under the Waterway Protection Line Ordinance.

Alternatives for reduction of impacts:

1. No build alternative.
2. Approve Application with the following modifications to plans listed above:
  - a) The permittee shall submit an S&E plan prior to the start of work for Conservation Department Review. The Commission recommends the use of timber matting for excavator use in the wetland and turbidity curtain to be deployed downstream of the work area. The Commission recommends the restriction of in-stream work if rain is in the 3-day forecast.
  - b) The permittee shall contact the Conservation Department to meet on the subject property at the start of work to observe the regulated activity. The Department reserves the right to request additional S&E controls if warranted.

**STAFF REPORT**  
**Application #IWW-WPL-11945-24**  
**55 Greens Farms Road**  
**Assessor's Map: D06 Tax Lot: 050**  
**Prepared June 25, 2024, revised to July 10, 2024**  
**Public Hearing: July 17, 2024**

**Receipt Date:** June 12, 2024

**Application Classification:** Plenary

**Application Request:** The applicant is requesting to clean portions of the brook to remove built-up sediment and blockages within the stream corridor that inhibit the flow of water. The work will occur within perennial watercourse and within the Waterway Protection Line of Pussy Willow Brook. The project proposes potential direct impacts to the watercourse and associated wetlands.

**Plans Reviewed:**

- a. **“Pussy Willow Brook Cleaning: Phase 1”** (excavation plan), prepared by the Town of Westport Engineering Division, dated June 7, 2024.
- b. **“Pussy Willow Brook – Stream Cleaning”** (cross section), General Detail for the Cleaning of Pussy Willow Brook, prepared by the Town of Westport Engineering Division, dated June 7, 2024.

**Background Information:**

1. WPLO boundary: Established 15 ft. landward from the wetland boundary. The north and east portions of the property are within the WPLO boundary.
2. Property is situated in Flood Zone A as shown on F.I.R.M. Panel 09001C0551G Map revised to July 8, 2013.
3. The site is not within the Aquifer Protection Overlay Zone. Flood & Erosion Control Board approved this application pursuant to the WPLO on July 10, 2024.
4. Coastal Area Management: Property located within CAM zone. The coastal resource identified is coastal hazard area. Coastal hazard areas are defined as those land areas inundated during coastal storm events. A-zones are subject to still-water flooding during “100-year” flood events. Coastal hazard areas serve as flood storage areas. They are, by their nature, hazardous areas for structural development, especially residential type uses. It is located in the Sasco Creek watershed (sub-regional drainage basin (#7109)). Sasco Creek is a perennial watercourse that runs north to south beneath the bridge. The creek empties into Long Island Sound approximately 1.7 river miles downstream of the project area.
5. Property is ~22 acres improved with commercial office buildings and asphalt parking lots within the DDD4 Zone.

**IWW and WPLO Regulated Areas:**

Setbacks determined for this property include a 20’ non-disturbance buffer for excavation. The Waterway Protection Line Boundary is established 15’ landward from the wetland boundary or the top of the bank of the watercourse. The proposed stream cleaning is within the watercourse and review area.

**Wetlands Description: Wetlands Description:** There is no site-specific soil survey or wetland characterization provided for this project.

The USFWS National Wetland Inventory identifies the watercourse as a 0.61 acre riverine habitat, classified as a **R5UBH**.

*“**System Riverine (R):** The Riverine System includes all wetlands and deepwater habitats contained within a channel, with two exceptions: (1) wetlands dominated by trees, shrubs, persistent emergents, emergent mosses, or lichens, and (2) habitats with water containing ocean-derived salts of 0.5 ppt or greater. A channel is an open conduit either naturally or artificially created which periodically or continuously contains moving water, or which forms a connecting link between two bodies of standing water.*

***Subsystem Unknown Perennial (5):** This Subsystem designation was created specifically for use when the distinction between lower perennial, upper perennial, and tidal cannot be made from aerial photography and no data is available.*

***Class Unconsolidated Bottom (UB):** Includes all wetlands and deepwater habitats with at least 25% cover of particles smaller than stones (less than 6-7 cm), and a vegetative cover less than 30%.*

***Water Regime Permanently Flooded (H):** Water covers the substrate throughout the year in all years.”*

The USFWS National Wetland Inventory identifies the southern wetland as 0.46 acre freshwater forested/shrub wetland habitat, classified as a **PFO1E**.

*“**System Palustrine (P):** The Palustrine System includes all nontidal wetlands dominated by trees, shrubs, persistent emergents, emergent mosses or lichens, and all such wetlands that occur in tidal areas where salinity due to ocean-derived salts is below 0.5 ppt. It also includes wetlands lacking such vegetation, but with all of the following four characteristics: (1) area less than 8 ha (20 acres); (2) active wave-formed or bedrock shoreline features lacking; (3) water depth in the deepest part of basin less than 2.5 m (8.2 ft) at low water; and (4) salinity due to ocean-derived salts less than 0.5 ppt.*

***Class Forested (FO):** Characterized by woody vegetation that is 6 m tall or taller.*

***Subclass Broad-Leaved Deciduous (1):** Woody angiosperms (trees or shrubs) with relatively wide, flat leaves that are shed during the cold or dry season; e.g., black ash (*Fraxinus nigra*).*

***Water Regime Seasonally Flooded/Saturated (E):** Surface water is present for extended periods (generally for more than a month) during the growing season, but is absent by the end of the season in most years. When surface water is absent, the substrate typically remains saturated at or near the surface.”*

Conservation Staff referenced USGS Web Soil Survey search results and listed the soils units likely present on the subject property.

***Soils likely found on the property:***

**Udorthents- Urban Land Complex (306):** This complex consists of moderately well drained to excessively drained soils that have been disturbed by cutting or filling, and areas that are covered by buildings and pavement. The complex is approximately 70 percent Udorthents, 20 percent Urban land,

and 10 percent other soils. Udorthents are in areas that have been cut to a depth of two feet or more or are on areas with more than two feet of fill. Udorthents consist primarily of moderately coarse textured soil material and a few small areas of medium textured material.

## **Conformance to Section 6 of the Inland Wetlands and Watercourses Regulations**

### **6.1 GENERAL STANDARDS**

- a) disturbance and pollution are minimized;
- b) minimize height, width, length of structures are limited to the minimum; dimension to accomplish the intended function;
- c) loss of fish, other beneficial organisms, wildlife and vegetation are prevented;
- d) potable fresh water supplies are protected from dangers of drought, overdraft, pollution, misuse and mismanagement;
- e) maintain conservation, economic, recreational and aesthetic qualities;
- f) consider historical sites

#### **Discussion:**

The property is ~22 acres and features two office buildings, paved parking lots and driveways. Pussy Willow Brook is a perennial stream that flows southeast across the northern and eastern property boundaries. Riparian wetlands extend from the margins of the stream channel. The stream and wetland fringe are forested with pockets of emergent wetland within silted branches of the stream. The parking lot extends to within ~10-15 linear feet of the watercourse and wetland in some areas.

At present, the buildup of soft sediment and woody debris is leading to flooding issues across the site where the restricted flow of water causes overtopping of the streambank into the parking lot of the property.

Excavation activity will remove soft sediment down to the historic streambed where sand, gravel and cobble are the predominant substrate types. Two reaches of the stream will be excavated. Segment 1, south of the driveway culvert, will be excavated to a depth of 24" and Segment 2, north of the driveway culvert will be excavated to a depth of 42". Dead woody debris and aquatic vegetation will be removed as a result of the activity. Sediment and debris will be removed and trucked offsite.

The streambed and streambanks will be generally left in their existing condition. Though the wetland and watercourse will be temporarily disturbed in some areas, Staff feels the restoration to a continuously open watercourse will create conditions that are more ecologically beneficial to aquatic fauna than existing conditions.

CT DEEP fisheries community data from nearby Muddy Brook demonstrates a similar perennial stream would be host to various warmwater fish species. During a site visit, Conservation Staff observed fish and frogs in the water column. As Pussy Willow Brook is inventoried in CT ECO mapping as an impaired waterway, water quality protective measures should maintain close to existing water quality in regards to suspended sediment, thermal increases, and dissolved oxygen. Unconfined in-stream work is planned from July 15 to September 15 of 2024.

Excavation with machinery is the proposed method but field conditions may call for alternate methods to be explored. Staff sees the use of a small excavator while limiting travel and number of access points within the wetland boundary as the least impactful and most feasible way to remove the soft sediment.

## 6.2 WATER QUALITY

- a) flushing rates, freshwater sources, existing basin characteristics and channel contours will not be adversely altered;
- b) water stagnation will neither be contributed nor caused;
- c) water pollution will not affect fauna, flora, physical or chemical nature of a regulated area, or the propagation and habitats of fish and wildlife, will not result;
- d) pollution of groundwater or a significant aquifer will not result (*groundwater recharge area or Aquifer Protection Overlay Zone*);
- e) all applicable state and local health codes shall be met;
- f) water quality will be maintained or improved in accordance with the standards set by federal, state, and local authority including section 25-54(e) of the Connecticut General Statutes
- g) prevents pollution of surface water

### Discussion:

The surface water quality classification for the stream (Connecticut Environmental Conditions Online, <http://www.cteco.uconn.edu/>), located on the subject property, is Class A water for Inland Surface Water Class. The Class A designation indicates that the water is suitable habitat for fish other aquatic life and wildlife and recreation.

Staff referenced UConn's CLEAR Local Watershed Assessment Tool. The subject property is located within the Muddy Brook local watershed basin. The local watershed basin (local basin # 7000-16) for Muddy Brook has a combined condition index (CCI) score of 0.19. A CCI score of less than 0.43 indicates the watershed basin may be significantly impaired. The Tool defines Stony Brook's Recovery Status as "Mitigation", identifying that watershed condition can be improved with mitigation efforts such as restoring riparian zones and restoring tree canopy along watercourses.

The project does not specify a method for removal of soft sediment or preventing sediment transport within the water column. The target months of July to September for the proposed activity is an effort to allow the stream to shrink or cease flowing and minimize work within the water column.

Temporary water quality will be adversely affected by in-stream excavation work. Soft sediment is likely to be released into the water column. Staff recommends the Commission require a review of S&E controls prior to the start of work. Long term water quality of the perennial stream should improve locally as a result of reduced flooding onto the asphalt parking lot. Flood waters discharging from parking lots can pick up contaminants and pollutants and cause localized temperature increases of the surface water.

## 6.3 EROSION AND SEDIMENT

- a) temporary erosion control measures shall be utilized during construction and for the stabilization period following construction;
- b) permanent erosion control measures shall be utilized using nonstructural alternatives whenever possible and structural alternatives when avoidable;

- c) existing circulation patterns, water velocity, or exposure to storm and flood conditions shall not be adversely altered;
- d) formation of deposits harmful to aquatic life and or wetlands habitat will not occur;
- e) applicable state, federal and local guidelines shall be met.

**Discussion:**

The project does not specify the utilization of S&E controls for this project. Staff recommends the use of timber mats for machine access and sediment booms deployed downstream of the site activity to be considered prior to the start of work. Staff recommends the Commission require review of S&E methods prior to the start of work. Staff will reserve the right to request additional S&E controls upon observation of the work in progress. Staff recommends that work not be completed with rain within the 3-day forecast from target work days.

**6.4 NATURAL HABITAT STANDARDS**

- a) critical habitats areas,
- b) the existing biological productivity of any Wetland and Watercourse shall be maintained or improved;
- c) breeding, nesting and or feeding habitats of wildlife will not be significantly altered;
- d) movements and lifestyles of fish and wildlife (plant and aquatic life) will not be significantly affected;
- e) periods of seasonal fish runs and bird migrations shall not be impeded;
- f) conservation or open space easements will be deeded whenever appropriate to protect these natural habitats.

**Discussion:**

A preliminary staff review of current data maintained by the Natural Diversity Database (NDDB) and housed in the DEEP ezFile portal, demonstrated that no populations of State Endangered, Threatened, or Special Concern species (RCA Sec. 26-306), and no Critical Habitats have been documented within or in close proximity to the project area. Staff feels there will be no impacts to state listed species or critical habitat as a result of the proposed project. Staff does not recommend any further consultation with state or federal agencies for potential impacts to T&E species or critical habitats.

Staff references CT DEEP fish community data which demonstrates that American eel, bluegill sunfish, creek chub, goldfish, and banded killifish were surveyed within a sampling reach of Muddy Brook in 1990. Data from this sampling station, which is about one mile to the east of the subject property, indicate that American eel is the most abundant species and that the reach that is within the project area is suitable for the passage of diadromous fish species, species that spend part of their life cycles migrating between salt and fresh water. Fish data indicates that the habitat is suitable for warmwater species.

<b>FISH COMMUNITY of Muddy Brook at Station # 16025</b>	<b>Longitude: -73.3293710556 Latitude: 41.1275758889</b>
<b>Species</b>	<b>Count</b>
American Eel	27
Bluegill Sunfish	2

Creek Chub	6
Goldfish	1
Banded Killifish	3

\*Source: CT ECO- CT ` Fish Community Data - Inland Waters (<https://cteco.uconn.edu/projects/fish/viewer/index.html>)

This portion of the stream is minimally influenced by tidal fluctuation, but some diadromous species such as American eel and banded killifish are expected to be found within the project area. The project does not propose to obstruct fish passage. If water is flowing at the time of the start of work, it will not be diverted or dammed in any way.

### 6.5 DISCHARGE AND RUNOFF

- a) the potential for flood damage on adjacent or adjoining properties will not be increased;
- b) the velocity or volume of flood waters both into and out of Wetlands and Watercourses will not be adversely altered;
- c) the capacity of any wetland or watercourse to transmit or absorb flood waters will not be significantly reduced;
- d) flooding upstream or downstream of the location site will not be significantly increased;
- e) the activity is acceptable to the Flood & Erosion Control Board and or the Town Engineer of the municipality of Westport

#### Discussion:

The Flood and Erosion Board approved this project at their meeting on July 10, 2024.

The project proposes to significantly increase the carrying capacity of the stream in the reaches immediately upstream and downstream of the driveway culvert. This will help reduce the amount of backwatering during flood events because the increased water volume will be less constricted during periods of excessive discharge and runoff. Staff feels this proposal will not cause adverse impacts to the capacity of any wetland or watercourse to transmit or absorb flood waters, will not increase flooding and will not adversely affect the velocity of flood waters into and out of the wetlands.

### 6.6 RECREATIONAL AND PUBLIC USES

- a) access to and use of public recreational and open space facilities, both existing and planned, will not be prevented;
- b) navigable channels and or small craft navigation will not be obstructed;
- c) open space, recreational or other easements will be deeded whenever appropriate to protect these existing or potential recreational or public uses;
- d) wetlands and watercourses held in public trust will not be adversely affected.

#### Discussion:

The proposed excavation will not affect recreational or public uses.

### Waterway Protection Line Ordinance

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

*habitat diversity, viability and productivity and the natural rates and processes of erosion and sedimentation.*

The Waterway Protection Line boundary is established 15' from the wetland boundary or the top of bank of the watercourse corridor. The Flood & Erosion Control Board has approved this application on July 10, 2024 with standard conditions. Staff supports the Town's efforts to maintain its waterways for the safety of its citizens. The clearing of the soft sediment and debris will reduce the amount of water backed up into the parking lot during major storm events. This should enhance how the site is able to transmit or absorb flood water. Staff feels that long-term improvement of waterflow will reduce the frequency of flooding and enhance stormwater quality. Staff feels the stream cleaning will not significantly impact resources as they are protected under the Waterway Protection Line Ordinance.

Alternatives for reduction of impacts:

1. No build alternative.
2. Approve Application with the following modifications to plans listed above:
  - a) The permittee shall submit an S&E plan prior to the start of work for Conservation Department Review. The Commission recommends the use of timber matting for excavator use in the wetland and turbidity curtain to be deployed downstream of the work area. The Commission recommends the restriction of in-stream work if rain is in the 3-day forecast.
  - b) The permittee shall contact the Conservation Department to meet on the subject property at the start of work to observe the regulated activity. The Department reserves the right to request additional S&E controls if warranted.

**STAFF REPORT**  
**Application #IWW-WPL-11945-24**  
**55 Greens Farms Road**  
**Assessor's Map: D06 Tax Lot: 050**  
**Prepared June 25, 2024, revised to July 10, 2024**  
**Public Hearing: July 17, 2024**

**Receipt Date:** June 12, 2024

**Application Classification:** Plenary

**Application Request:** The applicant is requesting to clean portions of the brook to remove built-up sediment and blockages within the stream corridor that inhibit the flow of water. The work will occur within perennial watercourse and within the Waterway Protection Line of Pussy Willow Brook. The project proposes potential direct impacts to the watercourse and associated wetlands.

**Plans Reviewed:**

- a. **“Pussy Willow Brook Cleaning: Phase 1”** (excavation plan), prepared by the Town of Westport Engineering Division, dated June 7, 2024.
- b. **“Pussy Willow Brook – Stream Cleaning”** (cross section), General Detail for the Cleaning of Pussy Willow Brook, prepared by the Town of Westport Engineering Division, dated June 7, 2024.

**Background Information:**

1. WPLO boundary: Established 15 ft. landward from the wetland boundary. The north and east portions of the property are within the WPLO boundary.
2. Property is situated in Flood Zone A as shown on F.I.R.M. Panel 09001C0551G Map revised to July 8, 2013.
3. The site is not within the Aquifer Protection Overlay Zone. Flood & Erosion Control Board approved this application pursuant to the WPLO on July 10, 2024.
4. Coastal Area Management: Property located within CAM zone. The coastal resource identified is coastal hazard area. Coastal hazard areas are defined as those land areas inundated during coastal storm events. A-zones are subject to still-water flooding during “100-year” flood events. Coastal hazard areas serve as flood storage areas. They are, by their nature, hazardous areas for structural development, especially residential type uses. It is located in the Sasco Creek watershed (sub-regional drainage basin (#7109)). Sasco Creek is a perennial watercourse that runs north to south beneath the bridge. The creek empties into Long Island Sound approximately 1.7 river miles downstream of the project area.
5. Property is ~22 acres improved with commercial office buildings and asphalt parking lots within the DDD4 Zone.

**IWW and WPLO Regulated Areas:**

Setbacks determined for this property include a 20’ non-disturbance buffer for excavation. The Waterway Protection Line Boundary is established 15’ landward from the wetland boundary or the top of the bank of the watercourse. The proposed stream cleaning is within the watercourse and review area.

**Wetlands Description: Wetlands Description:** There is no site-specific soil survey or wetland characterization provided for this project.

The USFWS National Wetland Inventory identifies the watercourse as a 0.61 acre riverine habitat, classified as a **R5UBH**.

*“**System Riverine (R):** The Riverine System includes all wetlands and deepwater habitats contained within a channel, with two exceptions: (1) wetlands dominated by trees, shrubs, persistent emergents, emergent mosses, or lichens, and (2) habitats with water containing ocean-derived salts of 0.5 ppt or greater. A channel is an open conduit either naturally or artificially created which periodically or continuously contains moving water, or which forms a connecting link between two bodies of standing water.*

***Subsystem Unknown Perennial (5):** This Subsystem designation was created specifically for use when the distinction between lower perennial, upper perennial, and tidal cannot be made from aerial photography and no data is available.*

***Class Unconsolidated Bottom (UB):** Includes all wetlands and deepwater habitats with at least 25% cover of particles smaller than stones (less than 6-7 cm), and a vegetative cover less than 30%.*

***Water Regime Permanently Flooded (H):** Water covers the substrate throughout the year in all years.”*

The USFWS National Wetland Inventory identifies the southern wetland as 0.46 acre freshwater forested/shrub wetland habitat, classified as a **PFO1E**.

*“**System Palustrine (P):** The Palustrine System includes all nontidal wetlands dominated by trees, shrubs, persistent emergents, emergent mosses or lichens, and all such wetlands that occur in tidal areas where salinity due to ocean-derived salts is below 0.5 ppt. It also includes wetlands lacking such vegetation, but with all of the following four characteristics: (1) area less than 8 ha (20 acres); (2) active wave-formed or bedrock shoreline features lacking; (3) water depth in the deepest part of basin less than 2.5 m (8.2 ft) at low water; and (4) salinity due to ocean-derived salts less than 0.5 ppt.*

***Class Forested (FO):** Characterized by woody vegetation that is 6 m tall or taller.*

***Subclass Broad-Leaved Deciduous (1):** Woody angiosperms (trees or shrubs) with relatively wide, flat leaves that are shed during the cold or dry season; e.g., black ash (*Fraxinus nigra*).*

***Water Regime Seasonally Flooded/Saturated (E):** Surface water is present for extended periods (generally for more than a month) during the growing season, but is absent by the end of the season in most years. When surface water is absent, the substrate typically remains saturated at or near the surface.”*

Conservation Staff referenced USGS Web Soil Survey search results and listed the soils units likely present on the subject property.

***Soils likely found on the property:***

**Udorthents- Urban Land Complex (306):** This complex consists of moderately well drained to excessively drained soils that have been disturbed by cutting or filling, and areas that are covered by buildings and pavement. The complex is approximately 70 percent Udorthents, 20 percent Urban land,

and 10 percent other soils. Udorthents are in areas that have been cut to a depth of two feet or more or are on areas with more than two feet of fill. Udorthents consist primarily of moderately coarse textured soil material and a few small areas of medium textured material.

## **Conformance to Section 6 of the Inland Wetlands and Watercourses Regulations**

### **6.1 GENERAL STANDARDS**

- a) disturbance and pollution are minimized;
- b) minimize height, width, length of structures are limited to the minimum; dimension to accomplish the intended function;
- c) loss of fish, other beneficial organisms, wildlife and vegetation are prevented;
- d) potable fresh water supplies are protected from dangers of drought, overdraft, pollution, misuse and mismanagement;
- e) maintain conservation, economic, recreational and aesthetic qualities;
- f) consider historical sites

#### **Discussion:**

The property is ~22 acres and features two office buildings, paved parking lots and driveways. Pussy Willow Brook is a perennial stream that flows southeast across the northern and eastern property boundaries. Riparian wetlands extend from the margins of the stream channel. The stream and wetland fringe are forested with pockets of emergent wetland within silted branches of the stream. The parking lot extends to within ~10-15 linear feet of the watercourse and wetland in some areas.

At present, the buildup of soft sediment and woody debris is leading to flooding issues across the site where the restricted flow of water causes overtopping of the streambank into the parking lot of the property.

Excavation activity will remove soft sediment down to the historic streambed where sand, gravel and cobble are the predominant substrate types. Two reaches of the stream will be excavated. Segment 1, south of the driveway culvert, will be excavated to a depth of 24" and Segment 2, north of the driveway culvert will be excavated to a depth of 42". Dead woody debris and aquatic vegetation will be removed as a result of the activity. Sediment and debris will be removed and trucked offsite.

The streambed and streambanks will be generally left in their existing condition. Though the wetland and watercourse will be temporarily disturbed in some areas, Staff feels the restoration to a continuously open watercourse will create conditions that are more ecologically beneficial to aquatic fauna than existing conditions.

CT DEEP fisheries community data from nearby Muddy Brook demonstrates a similar perennial stream would be host to various warmwater fish species. During a site visit, Conservation Staff observed fish and frogs in the water column. As Pussy Willow Brook is inventoried in CT ECO mapping as an impaired waterway, water quality protective measures should maintain close to existing water quality in regards to suspended sediment, thermal increases, and dissolved oxygen. Unconfined in-stream work is planned from July 15 to September 15 of 2024.

Excavation with machinery is the proposed method but field conditions may call for alternate methods to be explored. Staff sees the use of a small excavator while limiting travel and number of access points within the wetland boundary as the least impactful and most feasible way to remove the soft sediment.

## 6.2 WATER QUALITY

- a) flushing rates, freshwater sources, existing basin characteristics and channel contours will not be adversely altered;
- b) water stagnation will neither be contributed nor caused;
- c) water pollution will not affect fauna, flora, physical or chemical nature of a regulated area, or the propagation and habitats of fish and wildlife, will not result;
- d) pollution of groundwater or a significant aquifer will not result (*groundwater recharge area or Aquifer Protection Overlay Zone*);
- e) all applicable state and local health codes shall be met;
- f) water quality will be maintained or improved in accordance with the standards set by federal, state, and local authority including section 25-54(e) of the Connecticut General Statutes
- g) prevents pollution of surface water

### Discussion:

The surface water quality classification for the stream (Connecticut Environmental Conditions Online, <http://www.cteco.uconn.edu/>), located on the subject property, is Class A water for Inland Surface Water Class. The Class A designation indicates that the water is suitable habitat for fish other aquatic life and wildlife and recreation.

Staff referenced UConn's CLEAR Local Watershed Assessment Tool. The subject property is located within the Muddy Brook local watershed basin. The local watershed basin (local basin # 7000-16) for Muddy Brook has a combined condition index (CCI) score of 0.19. A CCI score of less than 0.43 indicates the watershed basin may be significantly impaired. The Tool defines Stony Brook's Recovery Status as "Mitigation", identifying that watershed condition can be improved with mitigation efforts such as restoring riparian zones and restoring tree canopy along watercourses.

The project does not specify a method for removal of soft sediment or preventing sediment transport within the water column. The target months of July to September for the proposed activity is an effort to allow the stream to shrink or cease flowing and minimize work within the water column.

Temporary water quality will be adversely affected by in-stream excavation work. Soft sediment is likely to be released into the water column. Staff recommends the Commission require a review of S&E controls prior to the start of work. Long term water quality of the perennial stream should improve locally as a result of reduced flooding onto the asphalt parking lot. Flood waters discharging from parking lots can pick up contaminants and pollutants and cause localized temperature increases of the surface water.

## 6.3 EROSION AND SEDIMENT

- a) temporary erosion control measures shall be utilized during construction and for the stabilization period following construction;
- b) permanent erosion control measures shall be utilized using nonstructural alternatives whenever possible and structural alternatives when avoidable;

- c) existing circulation patterns, water velocity, or exposure to storm and flood conditions shall not be adversely altered;
- d) formation of deposits harmful to aquatic life and or wetlands habitat will not occur;
- e) applicable state, federal and local guidelines shall be met.

**Discussion:**

The project does not specify the utilization of S&E controls for this project. Staff recommends the use of timber mats for machine access and sediment booms deployed downstream of the site activity to be considered prior to the start of work. Staff recommends the Commission require review of S&E methods prior to the start of work. Staff will reserve the right to request additional S&E controls upon observation of the work in progress. Staff recommends that work not be completed with rain within the 3-day forecast from target work days.

**6.4 NATURAL HABITAT STANDARDS**

- a) critical habitats areas,
- b) the existing biological productivity of any Wetland and Watercourse shall be maintained or improved;
- c) breeding, nesting and or feeding habitats of wildlife will not be significantly altered;
- d) movements and lifestyles of fish and wildlife (plant and aquatic life) will not be significantly affected;
- e) periods of seasonal fish runs and bird migrations shall not be impeded;
- f) conservation or open space easements will be deeded whenever appropriate to protect these natural habitats.

**Discussion:**

A preliminary staff review of current data maintained by the Natural Diversity Database (NDDB) and housed in the DEEP ezFile portal, demonstrated that no populations of State Endangered, Threatened, or Special Concern species (RCA Sec. 26-306), and no Critical Habitats have been documented within or in close proximity to the project area. Staff feels there will be no impacts to state listed species or critical habitat as a result of the proposed project. Staff does not recommend any further consultation with state or federal agencies for potential impacts to T&E species or critical habitats.

Staff references CT DEEP fish community data which demonstrates that American eel, bluegill sunfish, creek chub, goldfish, and banded killifish were surveyed within a sampling reach of Muddy Brook in 1990. Data from this sampling station, which is about one mile to the east of the subject property, indicate that American eel is the most abundant species and that the reach that is within the project area is suitable for the passage of diadromous fish species, species that spend part of their life cycles migrating between salt and fresh water. Fish data indicates that the habitat is suitable for warmwater species.

<b>FISH COMMUNITY of Muddy Brook at Station # 16025</b>	<b>Longitude: -73.3293710556 Latitude: 41.1275758889</b>
<b>Species</b>	<b>Count</b>
American Eel	27
Bluegill Sunfish	2

Creek Chub	6
Goldfish	1
Banded Killifish	3

\*Source: CT ECO- CT Fish Community Data - Inland Waters (<https://cteco.uconn.edu/projects/fish/viewer/index.html>)

This portion of the stream is minimally influenced by tidal fluctuation, but some diadromous species such as American eel and banded killifish are expected to be found within the project area. The project does not propose to obstruct fish passage. If water is flowing at the time of the start of work, it will not be diverted or dammed in any way.

### 6.5 DISCHARGE AND RUNOFF

- a) the potential for flood damage on adjacent or adjoining properties will not be increased;
- b) the velocity or volume of flood waters both into and out of Wetlands and Watercourses will not be adversely altered;
- c) the capacity of any wetland or watercourse to transmit or absorb flood waters will not be significantly reduced;
- d) flooding upstream or downstream of the location site will not be significantly increased;
- e) the activity is acceptable to the Flood & Erosion Control Board and or the Town Engineer of the municipality of Westport

#### Discussion:

The Flood and Erosion Board approved this project at their meeting on July 10, 2024.

The project proposes to significantly increase the carrying capacity of the stream in the reaches immediately upstream and downstream of the driveway culvert. This will help reduce the amount of backwatering during flood events because the increased water volume will be less constricted during periods of excessive discharge and runoff. Staff feels this proposal will not cause adverse impacts to the capacity of any wetland or watercourse to transmit or absorb flood waters, will not increase flooding and will not adversely affect the velocity of flood waters into and out of the wetlands.

### 6.6 RECREATIONAL AND PUBLIC USES

- a) access to and use of public recreational and open space facilities, both existing and planned, will not be prevented;
- b) navigable channels and or small craft navigation will not be obstructed;
- c) open space, recreational or other easements will be deeded whenever appropriate to protect these existing or potential recreational or public uses;
- d) wetlands and watercourses held in public trust will not be adversely affected.

#### Discussion:

The proposed excavation will not affect recreational or public uses.

### Waterway Protection Line Ordinance

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

*habitat diversity, viability and productivity and the natural rates and processes of erosion and sedimentation.*

The Waterway Protection Line boundary is established 15' from the wetland boundary or the top of bank of the watercourse corridor. The Flood & Erosion Control Board has approved this application on July 10, 2024 with standard conditions. Staff supports the Town's efforts to maintain its waterways for the safety of its citizens. The clearing of the soft sediment and debris will reduce the amount of water backed up into the parking lot during major storm events. This should enhance how the site is able to transmit or absorb flood water. Staff feels that long-term improvement of waterflow will reduce the frequency of flooding and enhance stormwater quality. Staff feels the stream cleaning will not significantly impact resources as they are protected under the Waterway Protection Line Ordinance.

Alternatives for reduction of impacts:

1. No build alternative.
2. Approve Application with the following modifications to plans listed above:
  - a) The permittee shall submit an S&E plan prior to the start of work for Conservation Department Review. The Commission recommends the use of timber matting for excavator use in the wetland and turbidity curtain to be deployed downstream of the work area. The Commission recommends the restriction of in-stream work if rain is in the 3-day forecast.
  - b) The permittee shall contact the Conservation Department to meet on the subject property at the start of work to observe the regulated activity. The Department reserves the right to request additional S&E controls if warranted.