APPENDIX B
ECOLOGICAL ASSESSMENT REPORT

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Ecological Assessment Report

Fairfield to Congress Railroad Transmission Line 115-kV Rebuild Project
The United Illuminating Company
Town of Fairfield and City of Bridgeport, Fairfield County, Connecticut

Prepared For: The United Illuminating Company
100 Marsh Hill Road
Orange, Connecticut 06477

Prepared By: LaBella Associates, D.P.C.
4 British American Boulevard
Latham, New York 12110

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1.0 EXECUTIVE SUMMARY

This report describes the existing ecological communities occurring on and within the approximate vicinity of the United Illuminating Company's (UI's) proposed Fairfield to Congress Railroad Transmission Line 115-kilovolt (kV) Rebuild Project (Project), which will generally be aligned within or near the Connecticut Department of Transportation's (CT DOT's) Metro-North Railroad (MNR) corridor from existing railroad catenary structure B648S in the Town of Fairfield east to UI's Congress Street Substation in the City of Bridgeport, Fairfield County, Connecticut (Figure 1). The Project area extends along and near the CT DOT railroad corridor, which is located between approximately 0.5- and 1 mile inland from Long Island Sound.

This report describes existing environmental resources and ecological communities, including soils, water resources, flora, fauna, fisheries, and wildlife habitats. Data provided as part of this evaluation are based on baseline research for the Project area, field investigations, and ecological consultations completed with the Connecticut Department of Energy and Environmental Protection (CT DEEP) Natural Diversity Database (NDDB) and United States Fish and Wildlife Service (USFWS). The report presents the results of research and analyses completed to date, including field investigations conducted within the proposed Project area, the review of published environmental data, and agency consultations.

2.0 INTRODUCTION

To maintain the reliability of the bulk transmission grid in Connecticut and regionally, UI proposes to rebuild its existing single-circuit 115-kV overhead lines that are presently located on MNR catenary structures within the CT DOT corridor from catenary structure B648S (east of Sasco Creek) in Fairfield to UI's Congress Street Substation located in Bridgeport. From catenary structure B648S east through Fairfield to the western portion of Bridgeport, one of UI's existing 115-kV lines (the 1130 Line) is supported on monopoles located along the north side of the CT DOT corridor, while another 115-kV line (the 1430 Line) is located on UI-owned extensions (bonnets) located on the top of the southern MNR catenary support structures. In Bridgeport, UI's two 115-kV lines are typically located on bonnets on both the north and south MNR catenary support columns. The existing 115-kV lines connect to UI's Ash Creek, Resco, Pequonnock, and Congress Street substations, all located in Bridgeport.

The Project is required because UI's engineering analyses of the existing 115-kV infrastructure on the railroad catenaries determined that the structural support system exhibits various physical limitations, such as age-related deterioration and corrosion. As a result, UI found that the 115-kV lines must be relocated off the catenary structures and rebuilt on new monopoles, generally within or near the CT DOT railroad corridor. The rebuilt 115-kV lines will be designed to meet current electrical codes and to withstand extreme weather conditions (such as Category 3 Hurricanes). The 115-kV line rebuilds will improve and maintain system reliability and provide technological enhancements to legacy system equipment in order to ensure that the safe and reliable transmission of power is maintained in accordance with Federal and UI reliability standards.

The Project entails the rebuild of approximately 7.3 miles of single- and double- circuit 115-kV lines along the CT DOT railroad corridor, from catenary structure B648S northeast to Congress Street Substation.[1] The Project also will rebuild UI's existing 0.23-mile double-circuit 115-kV overhead transmission lines that connect the 115-kV lines along the railroad corridor to UI's existing Ash Creek Substation. The 0.23-mile Ash Creek lines presently consist of double-circuit lattice steel towers situated within a UI right-of-way (ROW) that varies in width. In addition, the Project will connect the rebuilt 115-kV lines to Resco Tap and Congress Street Substation, as well as to the rebuilt lines at Pequonnock Substation.

The Project will entail relocating the transmission lines off the existing railroad catenary bonnets (that is, removing the UI-owned extensions from the catenary support columns and the overhead transmission wire systems) and installing independent monopoles with new insulators, hardware, and conductors generally within or near the CT DOT corridor. Along the 0.23-mile ROW from the CT DOT corridor to Ash Creek Substation, UI will remove the existing double-circuit lattice steel towers and will rebuild the 115-kV lines on new single-circuit monopoles.

Access to construct and operate/maintain the rebuilt 115-kV lines is expected to be via the existing public road network, within the CT DOT corridor, UI ROW to Ash Creek Substation, or new temporary or permanent access roads. To the extent practical, UI proposes to rebuild the 115-kV lines within undeveloped portions of the CT DOT corridor. However, in various locations, the CT DOT railroad corridor is not wide enough to accommodate the proposed new monopole structures and the clearances required to maintain, operate, and repair the new infrastructure. In such areas, UI will acquire permanent easements on properties adjacent to or near the CT DOT property boundary.

As part of the initial planning in support of the Project, UI and its consultants conducted baseline research and completed field inspections of the CT DOT corridor and the Project area to document and inventory existing ecological communities, wetland resources, watercourses, flora and fauna conditions, and wildlife habitat types, including listed species identified by CT DEEP NDDB and USFWS. UI also consulted with both the CT DEEP and the USFWS and assessed soil resources based on a review of data maintained by the United States Natural Resources Conservation Service (NRCS).

3.0 WATER RESOURCES

In conjunction with UI's initial project planning evaluations, wetland and watercourse delineations along the CT DOT corridor and UI's ROW to Ash Creek Substation were completed by BL Companies, Inc. (BL Companies) in April 2019 through May 2019, as well as in April 2022. The field delineations are documented in the *Water Resources Delineation Report (Fairfield to Congress – 115kV-Line Project)*, attached as Attachment A. Please refer to this document for detailed descriptions of the delineated wetlands, watercourses, and upland systems in the Project area, along with an evaluation of associated wetland function and values.

[1] Approximately 0.3 mile of UI's 115-kV lines that are located on the railroad catenary structures near the Pequonnock Substation in Bridgeport will be rebuilt (removed from the catenaries and installed on new monopoles) as part of UI's separate Pequonnock Substation Rebuild Project. As a result, whereas the distance from catenary structure B648S to Congress Street Substation is 7.6 miles, the Project will involve 115-kV line rebuild work on only 7.3 linear miles of the CT DOT corridor.

3.1 WETLAND AND WATERCOURSES

The 2019 and 2022 site investigations were performed to delineate State and Federal water resources (i.e., Waters of the United States, State-regulated tidal resources including all land below the coastal jurisdiction line [CJL], tidal vegetation up to one foot above the CJL, and inland freshwater wetlands and watercourses), to identify any vernal pools in the Project area and to assess general wildlife habitat. The site investigations were conducted by wetland scientists and certified professional soil scientists. Wetland and watercourse delineation methodology consisted of identifying vegetation, soils, and hydrology that are characteristic of wetland and upland areas, in accordance with State and Federal delineation protocols. Soil samples were taken via hand borings to document soil morphology and to characterize wetland and upland areas.

The primary named water resources in the Project area are Sasco Creek, Mill River, Ash Creek (crossed along the CT DOT corridor and UI's ROW to Ash Creek Substation), and the Pequonnock River. While the Project will not cross Sasco Creek, catenary structure B648S is located approximately 150 feet east of the creek and is near wetlands associated with the creek; as a result, Sasco Creek is included in the inventory of water resources in the Project area.

Following the *Classifications of Wetlands and Deepwater Habitats of the United States,*[2] the delineated wetlands and watercourses are characterized by National Wetland Inventory (NWI) classifications. The wetland classifications include palustrine emergent (PEM), palustrine scrub-shrub (PSS), palustrine forested (PFO), and estuarine subtidal (E1) and intertidal (E2) wetlands. Watercourses are characterized as E1, E2, riverine lower perennial (R2), riverine intermittent (R4), or riverine unknown perennial (R5).

Ten jurisdictional wetlands were identified within the Project area. Inland wetlands consist of five PEM wetlands, one mixed PFO/PEM wetland, and one mixed PEM/PSS. The PFO wetlands are primarily dominated by red maple (*Acer rubrum*), which is common throughout Connecticut; such areas are often referred to as "red maple swamps". PEM wetlands were primarily dominated by common reed (*Phragmites australis*) with broadleaf cattail (*Typha latifolia*) and jewelweed (*Impatiens capensis*) mixed throughout. In addition, three tidal estuarine intertidal emergent wetlands were delineated within the Project area, including one tidal wetland located east of Sasco Creek and two tidal wetlands that adjoin Ash Creek. Wetlands present within the Project area consist predominantly of urbanized, disturbed wetlands that have some degree of anthropogenic disturbance, therefore affecting the ecological communities found within the railroad corridor. In contrast, the three tidal wetlands delineated within the Project area are less disturbed and contain native marsh vegetation.

In addition to the 10 wetlands, 14 watercourses were identified in the Project area, including the four named watercourses (Sasco Creek, Mill River, Ash Creek [two crossings], and Pequonnock River), as well as un-named perennial streams, intermittent ditches/channelized streams, and an ephemeral drainage feature. Nine of the watercourses are freshwater, while five are tidal or tidally influenced, including Sasco Creek[3], Ash Creek (both crossings), the two streams associated with Ash Creek, and the Pequonnock River. Mill River, Ash Creek (both crossings), WC-2, WC-8, WC-9, WC-10. TWC-11, and the western edge of the Pequonnock River are spanned by the Project. Watercourse WC-2 is culverted under the railroad track and opens into a concrete lined channel just south of the railroad tracks within

[2] Cowardin, L.M., V. Carter, F.C. Goblet and E.T. LaRoae. 1979. Classification of Wetlands and Deepwater Habitats of the United States. U.S. Fish and Wildlife Service, OBS-79/31, Washington, D.C.

[3] The Project will not involve any work in or over Sasco Creek.

the Project area. Watercourse WC-7 is culverted under the railroad track and continues into the culverted portion of WC-8. WC-8 daylights via a large headwall with two openings into a concrete-lined channel, which connects with WC-9, south of the CT DOT corridor. Similarly, WC-9 is culverted under the railroad tracks and continues into an open concrete-lined channel south of the railroad tracks until it flows into a box culvert that conveys the watercourse under the US Route 1 (Kings Highway Cutoff) overpass. WC-9 daylights at a large headwall to an open concrete-lined channel, west of US Route 1, and continues south outside of the Project area.

Typical principal functions and values provided by wetlands within the Project area include flood-flow alteration, groundwater recharge, fish/shellfish habitat, nutrient removal/attenuation, and pollutant retention. Due to the urbanized landscape in which most of these wetlands occur, the functions of flood-flow alteration, nutrient removal/attenuation, and pollutant removal are likely important for the protection of downstream water quality. As most of these systems have an indirect or direct connection to Long Island Sound, their ability to capture and attenuate pollutant-laden runoff from high intensity development before it reaches Long Island Sound is notable.

Table 1 identifies wetlands in the Project area, listing each wetland based on the NWI classification regarding habitat type. The wetlands are illustrated on the mapping in Attachment A and the Volume 2 maps.

Table 1. Wetlands in the Project Area

Municipality/Project 100/400 Scale Mapsheet Nos.	Wetland Number*	NWI Classification	Inland (I) or Tidal (T)
1/1	TW-A	E2EMP5d	T
2/1	W-B	PEM	I
4-5/2	W-C	PEM	I
5-6/2	W-D	PEM	I
11/3	W-E	PFO/PEM	I
11/3	W-F	PEM	I
13/4	W-G	PEM	I
14/4	W-H	PEM/PSS	I
15/4	TW-I	E2EM	T
18/5	TW-J	E1UBL	T

* Refers to Project-specific designation given to the water resource during field investigations and shown on the Volume 2 aerial-based maps.

Table 2. Watercourses in the Project Area

Municipality/Project 100/400 Scale Mapsheet Nos.	Watercourse Name*	Flow Type	Freshwater (F) or Tidal (T)
1/1	Sasco Creek	Perennial	T
2/1	WC-2	Perennial	F
4/2	WC-3	Perennial	F
4-5/2	WC-4	Ephemeral	F
5/2	WC-5	Intermittent	F
5-6/2	Mill River	Perennial	F
12/4	WC-7	Perennial	F
12/4	WC-8	Perennial	F
12-13/4	WC-9	Perennial	F
14/4	WC-10	Perennial	F
15/4	TWC-10	Perennial	T
15, 18/4-5	Ash Creek	Perennial	T
15/4	TWC-11	Perennial	T
27-29/7	Pequonnock River	Perennial	T

* Refers to Project-specific number given to the water resource during field investigations and shown on the Volume 2 aerial-based maps.
Note: While in the general Project area, the Project will not cross Sasco Creek.

3.2 VERNAL POOLS

Site investigations were scheduled to coincide with the optimum time of year to identify vernal pools and the fauna utilizing such features. Field work was completed in April and May 2019, with additional site visits conducted in April 2022. Identification of vernal pools can only be verified during the spring since vernal pools are sensitive to seasonal water fluctuations and temperatures. Vernal pools are identified based on the presence of one or more obligate vernal pool species, including spotted salamander (*Ambystoma maculatum*), marbled salamander (*Ambystoma opacum*), Jefferson salamander (*Ambystoma jeffersonianum*), blue-spotted salamander (*Ambystoma laterale*), blue-spotted Jefferson hybridized complex, wood frog (*Rana sylvatica*), and fairy shrimp (*Anostraca spp.*).

No vernal pools were identified within the Project area. This was not unexpected as vernal pool dependent amphibians require upland forest surrounding their habitat during the non-breeding season, and suitable habitat is lacking due to the railroad and the urban development surrounding the CT DOT corridor.

4.0 FLORA AND FAUNA – GENERAL HABITAT CONDITIONS

From a biogeographical perspective, the Project area falls within the Long Island Sound Coastal Lowland ecoregion in the central part of Connecticut, between Sasco Creek and the Pequonnock River. The CT DOT corridor has supported railroad and utility infrastructure for decades and both UI and CT DOT/MNR perform periodic vegetation maintenance along the corridor. The CT DOT corridor extends through well-established and densely-developed areas of Fairfield and Bridgeport, where commercial and industrial land uses predominate. The existing 0.23-mile UI ROW between the CT DOT corridor and Ash Creek Substation crosses tidal watercourses and tidal wetlands.

Existing plant communities and wildlife found along and in the vicinity of the CT DOT corridor are associated with urbanized environments. Such habitats are of low significance in the State, as they tend to support disturbance-dependent wildlife, which often include species subsidized by human activities (e.g., rats, skunks, and racoons). The Project area is situated within a densely developed landscape with high traffic roadways and railways that present significant barriers to movement of terrestrial wildlife, including mammals, amphibians, and reptiles. Small habitat islands present can support migratory birds during migration along the Connecticut coastline, but long-term habitat for birds is restricted to species that are tolerant of highly disturbed habitats and other disturbances such as noise.

Vegetation within the majority of the Project area is dominated by non-native invasive species, including escaped ornamental vegetation often associated with residential landscaping. Typical plants observed in the Project area include Tartarian honeysuckle (*Lonicera tatarica*), multiflora rose (*Rosa multiflora*), common reed, oriental bittersweet (*Celastrus orbiculatus*), and these invasive species are common in the vicinity of the CT DOT corridor. Other common species that are found within the Project area include red maple, pin oak (*Quercus palustris*), white ash (*Fraxinus americana*), and red cedar (*Juniperus virginiana*).

The UI ROW between the CT DOT Corridor and Ash Creek Substation differs from the highly developed and disturbed CT DOT corridor. The substrate of Ash Creek consists of unconsolidated mucks which are exposed during low tied, forming intertidal flats that provide habitat for shellfish such as mussels and foraging habitat for birds. Tidal wetlands fridge the tidal watercourse, and the existing plant communities within these areas include dense vegetation that forms high marsh habitat dominated by common reed with smaller areas of saltmarsh cordgrass (*Spartina alterniflora*). Ash Creek is a concentration area for migratory waterfowl, including black duck (*Anas rubripes*), gadwall (*Anas acuta*), mallard (*Anas platyrhynchos*), and green-winged teal (*Anas carolinensis*).

Similarly, the Project area spans across a portion of the Pequonnock River near a large bulkhead located along the western bank of the river. Portions of the substrate of the Pequonnock River are exposed during low tide, forming intertidal flats that provide shellfish habitat (namely mussels) and foraging habitat for birds. Some slopes near the railroad crossing are stabilized with riprap, which also provides substrate for mussels. Some intertidal areas are stabilized with dense vegetation which forms low and high marsh habitat.

5.0 FISHERIES

The Project area traverses various perennial watercourses that are either known to support or have the potential to support warm water and other fisheries habitats. These include but are not limited to

Sasco Creek[4], Mill River, and the Pequonnock River. Warm-water fisheries are generally less sensitive than cold-water, and more tolerant of habitat disturbance and modifications to water quality.

Mill River has recently been stocked with certain cold-water species (trout); however, it is not expected that this watercourse along the railroad corridor supports self-sustaining trout populations. Similarly, no State-designated or wild trout management areas are located in the vicinity of the CT DOT corridor. The American eel (*Anguilla rostrata*), the only catadromous fish in Connecticut, is found in all waterbodies in the State, including certain watercourses in the Project area. Catadromous fish live most of their adult lives in freshwater but must return to saltwater to spawn.

According to CT DEEP, The Project area is also near areas that support anadromous fish (i.e., fish species that spend most of their adult lives at sea but return to freshwaters to spawn). Sasco Creek and Mill River support alewife (*Alosa pseudoharengus*) anadromous fish runs, and Mill River also supports blueback herring (*Alosa aestivalis*), and sea lamprey (*Petromyzon marinus*) fish runs. The Pequonnock River in Bridgeport also supports both alewife and sea lamprey runs. These anadromous species migrate to the first barrier on each waterway.[5] Striped bass and gizzard shad, also anadromous species, also feed in many coastal rivers in Connecticut and may periodically be found in the larger watercourses in the Project area.

6.0 SOILS

The majority of the Project area has been developed over time, and the CT DOT corridor and adjacent areas have been affected by various prior land use developments, including the creation and maintenance of the existing railroad tracks. The NRCS maps urban land and udorthents as the predominant upland (non-wetland) soil complexes present throughout the Project area (Attachment B).

Udorthents is a miscellaneous land type used to denote moderately-well to excessively-well drained earthen material which has been disturbed by cutting, filling, or grading in a way that the original soil profile can longer be discerned. However, native soils remain intact in certain portions of the Project area, mostly within freshwater and tidal wetlands or watercourses. In these areas, uplands are characterized by glaciofluvial soils (e.g., the Agawam series - derived from outwash surficial material). Tidally influenced wetland soils consist of Westbrook mucky peat derived from shallow organic material are associated within tidal wetlands located just east of Sasco Creek.

The Project area encompasses one small area mapped by the NRCS as Prime Farmland (Attachment B). This mapped area is located along the CT DOT corridor in the general vicinity of South Gate Lane (near existing catenary structures B648S and B651S) in Fairfield and is mapped as Agawam fine sandy loam. However, this area is encompassed with the CT DOT-owned corridor and a residential area, and none of the soils are presently used for agricultural purposes. There are no areas mapped as Statewide Important Farmland soils mapped within the Project area.

7.0 REGULATORY AGENCY CONSULTATIONS

To evaluate the potential for Federal or State-listed threatened, endangered, or special concern species to occur in the Project area, UI consulted with both the CT DEEP NDDB and the USFWS. Initial

[4] The Project area starts east of Sasco Creek, and no work will be done within or across Sasco Creek.
[5] https://portal.ct.gov/-/media/DEEP/fishing/fisheries_management/Migratory-Fish-Runs.pdf

correspondence with NDDB was conducted in 2019, and an NDDB letter dated September 18, 2019 indicated two known species within the Project area (Attachment C). UI initiated consultations again in January 2022 with CT DEEP NDDB to reassess the potential for State-listed species to be present within the Project area and, if so, to determine methods for avoiding or minimizing impacts to such species. The results of these consultations determined that there are known extant populations of one threatened and one special concern State-listed species in the Project area. These species are:

- Peregrine falcon (*Falco peregrinus)* – threatened
- Blueback herring (*Alosa aestivalis*) – special concern

The NDDB determination, issued on January 28, 2022, is valid for two years. If the Project scope of work changes or work is not initiated by January 28, 2024, UI will submit a new request to CT DEEP NDDB (See Attachment C).

To fulfill the requirements of the USFWS under section 7(c) of the Endangered Species Act, UI consulted with the USFWS's New England Ecological Services Field Office through the Environmental Conservation Online System Information for Planning and Consultation (IPaC). The IPaC system identified three Federally-listed species as potentially occurring within the Project area and one additional species that is a candidate for listing. The Federally-listed species identified for the Project area include:

- Northern long-eared bat (*Myotis septentrionalis*) – Threatened
- Red knot (*Calidris canutus rufa)* – Threatened
- Roseate tern (*Sterna dougallii dougallii*) - Endangered
- Monarch butterfly (*Danaus plexippus*) – Candidate for listing

The IPaC review determined there are no critical habitats within the Project area. Results of the August 23, 2022, IPaC review are provided in Attachment D.

In addition to consultations with USFWS and NDDB, UI expects to consult with the National Marine Fisheries Service as part of coordinated interagency review during the permitting process.

7.1 LISTED SPECIES DISCUSSION

The following sections provide brief summaries and characteristics of the Federal and State-listed species. UI's initial proposed protection/avoidance measures to be used during the Project construction to avoid or minimize the potential for impacts to these species is also included.

7.2 STATE LISTED BIRDS AND FISH

No onsite surveys have been conducted for listed avian or fish species. NDDB has identified one State-listed bird in the vicinity of the Project area and has recommended protective measures to be employed during Project construction to avoid unintended encounters and mitigate for potential adverse effects. UI is committed to implementing and maintaining appropriate protective measures prior to and during construction.

State Threatened Peregrine Falcon (Falco peregrinus)

The NDDB identified a peregrine falcon nest located on the I-95 bridge over the Pequonnock River in Bridgeport. Peregrine falcon nests are highly susceptible to disturbance during the nesting season,

which occurs April through July. Peregrine falcons are very territorial during the breeding season and will make their presence known if in close proximity to a nest site.

Additional correspondence with a DEEP wildlife biologist confirmed the location of the nest and that the nest is active as of 2022. If any construction of the Project is conducted during the active nesting season, CT DEEP recommends a 330-foot buffer between active construction equipment locations that are not in the nest's line-of-sight, or a 660-foot buffer from nests that are in the line-of-sight of construction work areas. UI is committed to following the listed guidelines provided by CT DEEP and will implement all measures necessary to avoid any impact to the Peregrine falcon and nest, if active during the breeding season.

State Special Concern Blueback Herring (Alosa aestivalis)

The NDDB identified records of blueback herring in the Mill River in Fairfield. Based on current Project plans, UI does not anticipate any in water work within the Mill River. If the scope of the Project changes and in water work is required within Mill River, UI will consult further with CT DEEP to analyze potential impacts, mitigation, and permitting as necessary.

7.3 FEDERALLY LISTED SPECIES

Northern Long-Eared Bat (Myotis septentrionalis)

The Project area is not located within 150 feet of a known occupied maternity roost tree or within 0.25 mile of a known northern long-eared bat hibernaculum. There are currently no documented northern long-eared bat maternity roost trees in Connecticut. The nearest northern long-eared bat habitat resource to the proposed activity is located in the Town of Greenwich, Connecticut, over 15 miles from the western end of the Project. While some tree cutting is proposed as part of the Project, there are no known records of this species in the immediate vicinity of the Project area, and it appears that any tree clearing associated with the Project is compliant with the USFWS 4(d) rule for this species. However, the current "Threatened" federal listing status for northern long-eared bat is currently under review, and USFWS may re-list this species as "Endangered" by November 2022. The "Endangered" designation is given to species that have become so rare that they are in danger of becoming extinct. If the northern-long eared bat is federally relisted as endangered, UI will consult with USFWS to determine if any restrictions on Project construction or mitigation is warranted to protect this species.

Red Knot (Calidris canutus rufa)

The red knot is a shorebird typically found along the Connecticut coastline during northbound and southbound migration. These birds spend most of their time foraging along the waterline within the intertidal zone. Not known to occur at inland locations, red knots can be found on Connecticut's barrier beaches from mid-April to the end of May, and then again from July through mid-September. Sometimes non-breeding individuals may linger along Connecticut barrier beaches between migratory periods, and late individuals may pass through on Southbound migration well into November.

Migration and wintering habitats include both high-energy ocean or bay-front areas, as well as tidal flats in more sheltered bays and lagoons. Preferred wintering and migration microhabitats are muddy or sandy coastal areas, specifically, the mouths of bays and estuaries, unimproved tidal inlets, and tidal flats. In many wintering and stopover areas, quality high tide roosting habitat (i.e., close to feeding areas, protected from predators, with sufficient space during the highest tides, free from excessive human disturbance) is limited.

Most of the 115-kV transmission line rebuild work will be localized along or near the CT DOT corridor, which provides no suitable foraging habitat for red knot. The majority of the Project will remain within the highly disturbed CT DOT corridor, except for the crossings of Ash Creek and the Pequonnock River. The 0.23-mile UI ROW between the CT DOT corridor and Ash Creek Substation will require work in the Ash Creek tidal wetlands and will span Ash Creek and intertidal habitats associated with the creek. However, work in this area will be conducted mostly in upland disturbed areas along Ash Creek, though, temporary access across a small portion of Ash Creek will be required to reach an existing lattice structure that is located on a small rocky island. This work will be required to rebuild the existing transmission lines, including the removal of an existing steel lattice tower. Access may be required via a bridge or timber matting across a narrow area of the intertidal zone that is exposed during low tide. UI does not anticipate construction activities would result in an "incidental take" of this species or negative effects to their habitat.

Roseate tern (Sterna dougallii dougallii)

Roseate terns are a shorebird that have a white body and black head cap, with a rosy tint on the breast and bright orange-red legs and feet that are easily identifiable. This species nests in colonies along sand or gravel beaches or along rocky offshore islands, often occurring near shallow water for fishing. Nests are often found under dense grass or under boulders. Roseate terns arrive in Connecticut in late April to early May and stay through the summer months before leaving for wintering locations in South America.

A large colony of nesting roseate terns is located on Falkner Island, which is 3 miles off the coast of Guildford, Connecticut and approximately 28 miles from the Project area. Smaller colonies also occur on barrier beach islands and saltmarsh islands, with historic reported colonies on Duck Island near Clinton, Connecticut (approximately 37.5 miles from the Project area) and Tuxis Island near Madison, Connecticut (approximately 31 miles from the Project area). Populations of roseate tern are also reported at the Connecticut Audubon Society Coastal Center at Milford Point (4.5 miles east of the Project area), Cockenoe Island in Westport (4.3 miles southwest of the Project area), Sandy Point Bird Sanctuary (15 miles east of the Project area), Hammonasset Beach State Park (30 miles east of the Project area), and Harness State Park (56 miles east of the Project area).

The type of coastal habitat preferred by roseate terns is not present within or near the Project area. Intertidal areas associated with Ash Creek are present, but nesting habitat for roseate tern is not likely since the Ash Creek crossing is inland and does not have the rocky, coastal nesting habitat required by this species. Considering these factors, UI does not anticipate construction activities would result in an "incidental take" of this species or have negative effects to their habitat.

Monarch Butterfly (Danaus plexippus)

The monarch butterfly is large, easily recognizable butterfly with orange and black wings that is well known for its transcontinental migrations each year. This butterfly is found throughout Connecticut in the summer months, and prefers weedy areas along roadsides, pastures, and fields where milkweed (*Asclepias* spp.) is found. Monarchs lay their eggs on milkweed, their only caterpillar host plant, and as caterpillars, monarchs feed exclusively on the leaves of milkweed. North America has several dozen native milkweed species with which monarchs coevolved and upon which they rely to complete their life cycle. Habitat loss and fragmentation has occurred throughout the range of the monarch butterfly, and populations have declined significantly over the past 20 years. Pesticide use can destroy the milkweed plants that monarchs need to survive.

After extensive review by USFWS, it was determined in December 2020 that listing the monarch butterfly under the Endangered Species Act is warranted but precluded at this time due to higher priority listing actions. Therefore, the monarch butterfly is currently unlisted federally, and is considered a candidate species for future listing. USFWS will review the status of monarch butterfly each year. Since the monarch butterfly is an unlisted candidate species and is not currently listed, there are generally no USFWS Section 7 requirements at this time.

7.4 ADDITIONAL SPECIES

While not a listed species in Connecticut, osprey (*Pandion haliaetus*) are known to nest in the vicinity of the CT DOT corridor. Disturbance to ospreys is prohibited under the Federal Migratory Bird Treaty Act, as well as the Connecticut General Statutes Section 26-92.

Within the Project area, a confirmed active (as of 2022) osprey nest is located on the existing lattice structure located on a small rocky island in Ash Creek, immediately north of the Ash Creek Substation. Similarly, osprey nests are located on catenary structures B672 and the lattice tower located near the bus station in Bridgeport.

An osprey nest is also located on catenary structure B647, however this structure is located just west of the Project area, and no work is planned at this catenary structure.

UI is currently aware of these four osprey nests (one of which is outside of the Project area) and expects to coordinate further with CT DEEP regarding the osprey nests in relation to the proposed Project activities.

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ATTACHMENT A

Water Resources
Delineation Report

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Architecture
Engineering
Environmental
Land Surveying
Companies

An Employee-Owned Company

WATER RESOURCES DELINEATION REPORT
Fairfield to Congress - 115kV T-Line Project
Fairfield County, CT

BL Project No.: 2102261

Prepared for

Westwood Surveying and Engineering, P.C.
75 Thruway Park Drive, Suite A
West Henrietta, NY 14586

Prepared by

BL Companies, Inc.
355 Research Parkway
Meriden, CT 06450

September 20, 2022

Water Resources Delineation Report

Fairfield to Congress - 115kV T-Line Project
Fairfield Co., CT

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I. INTRODUCTION

BL Companies, Inc. (BL) conducted a site investigation to delineate state and federal wetlands and Waters of the United States, state regulated tidal resources including all land below the coastal jurisdiction line (CJL) and tidal vegetation up to one-foot above the CJL and to identify vernal pools and complete a habitat assessment for federally and state listed species within the corridor along approximately 7.5 miles of the Metro-North Railroad. The project area is located in the County of Fairfield, Connecticut (**Figure 1, below, and Appendix A**). The coordinates for the approximate southwestern and northeastern ends of this linear project are N 41.130058 / W 73.296132 and N 41.184136 / W 73.185377, respectively. The resource delineation, vernal pool investigation, and habitat assessment followed the railroad corridor map provided by United Illuminating (UI) Company and verified by BL's survey crew. The project area is a linear corridor approximately 7.5 miles long and varying in width from approximately 100 feet to 250 feet wide on the north and south sides of the Metro-North Railroad and associated wetlands in the vicinity of the right-of-way (hereinafter referred to as the "project area"). The Project area also includes a 0.23-mile existing UI right-of-way (ROW) that extends between the railroad corridor and Ash Creek Substation and is presently occupied by lattice steel towers that support two UI 115-kV lines.

The project area lies within the Pequonnock River-Frontal Long Island Sound drainage basin (0110000603). The project area does not fall within a public water supply or Aquifer Protection Area (APA). Multiple portions of the project area fall within the Coastal Area Management (CAM) zone. Coastal resources within the CAM portion of the project area include intertidal flats, tidal wetlands, and coastal flood hazard areas. Several coastal and inland resources were identified on the U.S. Fish and Wildlife Service's National Wetlands Inventory (NWI) mapping. Preliminary review of soil mapping provided by the Natural Resource Conservation Service did not identify any areas of hydric, poorly drained, or very poorly drained soils. Federal Emergency Management Agency (FEMA) mapping indicates that floodplain and floodway are present throughout the corridor. NWI, Soils, FEMA, and Resource mapping is provided in **Appendix B**.

The purpose of this report is to document and describe state and federal jurisdictional wetlands, i.e., Waters of the United States, tidal wetlands and coastal resources, as well as identify vernal pools. It should be noted that vernal pools can only be accurately identified during the early spring while water levels are high and signs of amphibian breeding are evident. Vernal pools in Connecticut are based upon certain obligate species being present and utilizing the pool for breeding. The wetland delineations were completed during the appropriate time of year to assess vernal pools, in the spring of 2019, and no evidence of vernal pool species was observed throughout the project limits.

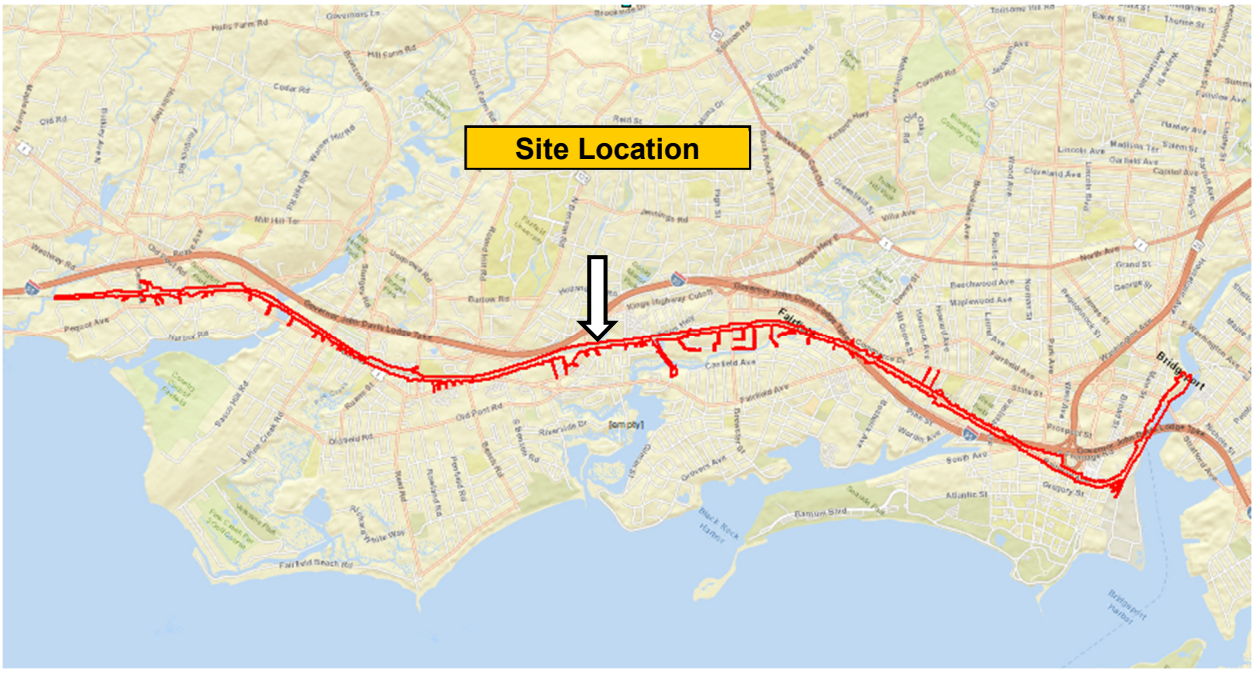

Figure 1 – Project Area Location Map near Fairfield & Bridgeport, CT (Fairfield County)

II. METHODS

This investigation involved a wetland/watercourse delineation that was completed by wetland scientists and a Certified Professional Soil Scientist (CPSS) and conducted in accordance with the principles and practices noted in the United States Department of Agriculture (USDA) Soil Survey Manual (1993). The soil classification system of the National Cooperative Soil Survey was used in this investigation to identify the soil map units present on the project area.

Vegetation, soils, and hydrology were observed and documented during the site investigation in accordance with state and federal delineation methodologies. Soil types were identified by observing soil morphology (soil texture, color, structure, etc.). To observe the morphology of the soils, hand borings are completed. Where wetland and/or watercourses were determined to be present, their boundaries were identified with flags, which were hung from vegetation, or small stakes if in fields or grass communities. These flags are labeled "Wetland Boundary" and generally spaced approximately 50 feet apart. It is important to note that flagged wetland and watercourse boundaries are subject to verification by local, state, and/or federal regulatory agencies.

III. REGULATORY INFORMATION

Wetlands and watercourses are regulated by both state, municipal and federal laws and regulations, each with different definitions and regulatory requirements. Accordingly, the

State and municipalities may regulate wetland and waters that fall outside of federal jurisdiction; however, where federal jurisdiction exists, concurrent State jurisdiction is almost always present.

State/Municipal Jurisdiction

Inland wetland determinations are based on the presence of poorly drained, very poorly drained, alluvial, or floodplain soils and submerged land. Watercourses are defined as "rivers, streams, brooks, waterways, lakes, ponds, marshes, swamps, bogs and all other bodies of water, natural or artificial, vernal or intermittent, public or private, which are contained within, flow through or border upon the state or any portion thereof." Intermittent watercourse determinations are made based on the presence of a defined permanent channel and bank, and two of the following characteristics: (1) evidence of scour or deposits of recent alluvium or detritus, (2) the presence of standing or flowing water for a duration longer than a particular storm incident, and (3) the presence of hydrophytic vegetation. (See Inland Wetlands and Watercourses Act §22a-38 CGS.) Municipalities may impose additional regulations on inland wetlands and watercourses but have no jurisdiction over state-regulated tidal wetlands.

The Connecticut Department of Energy and Environmental Protection's (DEEP) Office of Long Island Sound Programs (OLISP) regulates all activities conducted in tidal wetlands and in tidal, coastal or navigable waters in Connecticut under the Structures, Dredging and Fill Act (Conn. Gen. Statutes (CGS) Sec. 22a-359 - 22a-363f, inclusive) and the Tidal Wetlands Act (CGS Sec. 22a-28 - 22a-35, inclusive). Recently, The High Tide Line (HTL), which was used as the jurisdictional limit for DEEP OLISP, was replaced by a Coastal Jurisdiction Line (CJL). The CJL elevation for Fairfield is 5.2' and 5.0' for Bridgeport (NAVD 88). Tidal wetlands are also separately regulated below the CJL, and up to one foot above the CJL if the area is deemed "capable of supporting" tidal wetland vegetation based on field investigations, through identification of certain plants and the presence of tidal waters.

Federal Jurisdiction

Jurisdictional wetlands at the Federal level consist of "waters of the United States", which includes lakes, rivers and streams, as well as vegetated wetlands (See 33 CFR 328.8). The on-site waters and wetlands, regulated by the U.S. Army Corps of Engineers (ACOE), were delineated in accordance with the *Regional Supplement to the Corps of Engineers Wetland Delineation Manual Northcentral and Northeast Region* (Version 2.0) (January 2012). This *Manual* requires there to be dominant hydrophytic vegetation, hydric soils, and hydrological conditions present in determining wetland areas.

Federal coastal jurisdiction under the Section 404 Clean Water Act includes navigable waters of the US below the High Tide Line (HTL). Federal jurisdiction includes all waters and their tributaries to the head of tide, which extends shoreward to the mean high-water line under Section 10 of the Rivers and Harbors Act and extends shoreward to the 1-year frequency tidal flood under Section 404 of the Clean Water Act.

IV. FUNCTIONS AND VALUES

Biophysical elements such as a wetland's landscape position, size, geology, hydrology, substrate, and vegetation determine the wetland functions and to what capacity they are performed. Due to the differing biophysical characteristics between on-site wetlands, the functions the wetlands provide and the capacity to perform those functions vary. To better understand these differences, a description of the assessed wetland functional values was completed based on the United States Army Corps of Engineers (ACOE) Highway Methodology Workbook (1993) and its supplement workbook. This method requires a description of each of the wetland communities as well as indicating the functions they provide. The ACOE workbook includes the following thirteen (13) functions and values that have been recognized as functions wetlands can provide:

- Groundwater Recharge/Discharge,
- Flood flow Alteration,
- Fish and Shellfish Habitat,
- Sediment/Toxicant Retention,
- Nutrient Removal/Retention/Transformation,
- Production Export,
- Sediment/Shoreline Stabilization,
- Wildlife Habitat,
- Recreation,
- Education/Scientific Value,
- Uniqueness/Heritage,
- Visual Quality/Aesthetics, and
- Threatened and Endangered Species Habitat.

V. SITE INVESTIGATION

The project area was investigated on various dates in April and May 2019 and April 2022 and under various meteorological conditions. As field work was conducted early in the growing season, many vegetation specimens, particularly herbaceous species, were difficult to identify. Dates during which field investigations were conducted are noted on data forms in **Appendix E**.

The field investigations were conducted within the area of the Metro-North Railroad corridor, a transportation corridor constructed over 100 years ago and in constant use since then. The field investigations also included a 0.23-mile existing UI right-of-way (ROW) that extends between the railroad corridor and Ash Creek Substation and is presently occupied by lattice steel towers that support two UI 115-kV lines. As such, this historic land use and both past and present anthropogenic actions have affected the ecology of areas within the railroad right-of-way.

Areas identified as jurisdictional features at the federal, state and municipal levels during the field investigations included:

Identifier	USFWS NWI Classification or Stream Designation	USDA WSS Soils Map Unit	Notes
Tidal Wetland A	E2EMP5d	Udorthents-Urban Land Complex	Adjoining Sasco Creek, ponded areas during high tide. This wetland is located west of the Fairfield-Congress Project Start Location.
Stream 1 (Sasco Creek, Tidal)	E1UBL	N/A	Tidally influenced watercourse, located west of the Fairfield-Congress Project Start Location.
Wetland B	PEM	Udorthents-Urban Land Complex	Adjoins Stream 2. Receives hydrology from Stream 2.
Stream 2	R5UBh1	N/A	Perennial stream, culverted under the ROW.
Stream 3	R5UBh1	N/A	Perennial stream, located on the south side of the ROW.
Stream 4	R6	N/A	Receives rain run-off, located at toe slope of rip rap of railroad.
Stream 5	R4SBC1	N/A	Flows intermittently into Wetland C.
Wetland C	PEM	Udorthents-Urban Land Complex	Adjoins Stream 5. Receives hydrology from Stream 5.
Wetland D	PEM	Udorthents-Urban Land Complex	Adjoining Mill River, fringe-type wetlands. Vegetation community predominantly composed of *Phragmites.*
Stream 6 (Mill River)	R2UBH	N/A	Riverine watercourse, flows into Southport Harbor, crosses under ROW and continues outside of ROW.
Wetland E	PEM/PFO	Udorthents-Urban Land Complex	To the north of the railroad, vegetation community predominantly composed of *Phragmites* and *Acer rubrum.*

Identifier	USFWS NWI Classification or Stream Designation	USDA WSS Soils Map Unit	Notes
Wetland F	PEM	Urban Land	To the south of the railroad, vegetation community predominantly composed of *Phragmites*.
Stream 7	R5UBh1	N/A	Crosses under the ROW, via culvert, into Stream 8.
Stream 8	R5UBh1	N/A	Stream 8 flows parallel to the railroad tracks within the ROW, then off the ROW to the south.
Stream 9	R5UBh1	N/A	Stream 9 crosses under the ROW, via culvert, then off the ROW to the south.
Wetland G	PEM	Udorthents-Urban Land Complex	Adjoins Stream 9. Located to the north of the railroad, vegetation community predominantly composed of *Phragmites.*
Wetland H	PEM/PSS	Udorthents, smoothed / Udorthents-Urban Land Complex	Adjoins Stream 10. Located to the south of the railroad, this wetland is comprised of a conservation easement and is tidally influenced. Located along the UI ROW to Ash Creek SS.
Stream 10	R5UBh1	N/A	Located south of the railroad, flowing parallel to the railroad. Located along the UI ROW to Ash Creek SS.
Tidal Watercourse 11	R5UBh1	N/A	Located south of the railroad, flows south into Estuarine habitat. Located along the UI ROW to Ash Creek SS.
Tidal Watercourse12	R5UBh1	N/A	Located south of the railroad, flows parallel to the western side of the UI ROW and into Estuarine habitat. Located along the UI ROW to Ash Creek SS.
Stream 13 (Ash Creek, Tidal)	E1UBL	N/A	Tidally influenced watercourse, Crosses under RR ROW in a north to south direction, continues outside the ROW and then under UI ROW in an east to west direction. Located along the UI ROW to Ash Creek SS.
Tidal Wetland I	E1UBL	N/A	Adjoins Stream 13 (Ash Creek, Tidal). Located to the south of the railroad, this wetland is tidally influenced. Located along the UI ROW to Ash Creek SS.

Identifier	USFWS NWI Classification or Stream Designation	USDA WSS Soils Map Unit	Notes
Tidal Wetland J	E1UBL	N/A	Adjoins Stream 13 (Ash Creek, Tidal). Located to the south of the railroad, this wetland is tidally influenced.
Stream 14 (Pequonnock River)	E1UBL	N/A	Tidally influenced watercourse, Crosses under ROW in a north to south direction. Parallels portions of the ROW.

Data on the current plant communities, soils, and hydrology were documented to support the wetland delineation using Army Corps Wetland Determination Data Forms. Some of the common plant species observed in the study area are listed in **Table 1**. Descriptions of the delineated wetland resources are provided in Section VI. The delineated wetlands and watercourses and location of the data points are identified on the wetland mapping located in **Appendix C**. Delineated coastal resources are included with the mapping provided in **Appendix C**. Photographs of the identified wetland resources, taken to provide visual documentation of the area, are located in **Appendix D**, and data sheets are located in **Appendix E**.

Table 1: Common Plants in the Study Area and the Wetland Indicator Status

Common Name	Scientific Name	Indicator Status
Tree Stratum		
Pin oak	*Quercus palustris*	FACW
Red Maple	*Acer rubrum*	FAC
Sapling, Shrub and Vine Stratum		
Tartarian honeysuckle	*Lonicera tatarica*	FACU
White ash	*Fraxinus americana*	FACU
Rambler rose	*Rosa multiflora*	FACU
Herb Stratum		
Common reed	*Phragmites australis*	FACW
Broadleaf cattail	*Typha latifolia*	OBL
Jewelweed	*Impatiens capensis*	FACW

VI. RESOURCE DESCRIPTIONS

During wetland delineation activities conducted in April and May 2019 and April 2022, two wetland areas and one stream on the western side of Sasco Creek were previously delineated and were initially included as part of the project area. Recent changes to the proposed project indicate that these features are no longer part of the project area, and only wetlands and streams to the east of Sasco Creek are included within this report.

Wetland Complex A

Tidal Wetland A: USFWS Classification: E2EMPd/E2EMP5d

Tidal Wetland A is classified as an estuarine intertidal emergent irregularly flooded partially drained/ditched wetland (E2EMPd) and an estuarine intertidal emergent irregularly flooded Phragmites australis partially drained/ditched wetland (E2EMP5d) located on both sides of the railroad bed. These areas flood during high tide. This wetland is located west of the Fairfield-Congress Project Start Location.

The soil series identified is Udorthents-Urban land complex. Udorthents consist primarily of areas that have been cut for leveling or filled for development. Hydrologic conditions are influenced by diurnal fluctuations of Sasco Creek.

Tidal Wetland A provides the following functions and values: groundwater recharge/discharge, flood flow alteration, sediment/toxicant retention, shellfish habitat, and nutrient removal.

This area is designated as "Zone AE" & "Zone VE", which is a mapped floodplain, in the Flood Insurance Rate Map for Fairfield County, Connecticut (09001C0441G), effective July 8, 2013. Please refer to **Appendix B** for FEMA FIRM Map.

Stream 1 (Sasco Creek, Tidal): USFWS Classification: E1UBL

Stream 1 (Sasco Creek, Tidal) is classified as an estuarine subtidal unconsolidated bottom subtidal (E1UBL) watercourse according to USFWS National Wetland Inventory (NWI) mapping. The watercourse flows south into the Long Island Sound and is subject to the ebb and flood of the tides. The substrate of the creek consists of an unconsolidated organic muck. During low tide, expanses of the substrate are exposed, forming intertidal flats that provide habitat for shellfish, namely mussels, and foraging habitat for birds. Some intertidal areas are stabilized with dense vegetation, forming low and high marsh habitat. Slopes in the vicinity of the railroad crossing over the creek are protected by riprap, which also provides substrate for mussels and tidal vegetation. Sasco Creek is located west of the Fairfield-Congress Project Start Location.

This area is designated as "Zone AE" & "Zone VE", which is a mapped floodplain, in the Flood Insurance Rate Map for Fairfield County, Connecticut (09001C0441G), effective July 8, 2013. Please refer to **Appendix B** for FEMA FIRM Map.

Wetland Complex B

Wetland B: USFWS Classification: PEM

Wetland B is classified as a palustrine emergent (PEM) wetland located south of the Metro-North ROW and west of Westway Road. This area was delineated using sequentially numbered flags 1 through 8 (open loop). The wetland is dominated by red maple (*Acer rubrum*), which is a "facultative" wetland species and common reed (*Phragmites australis*), which is a "facultative wetland" species.

The soil series identified is Scarboro muck, 0 to 3 percent slopes, which consists of very deep, very poorly drained soils in sandy glaciofluvial deposits on outwash plains, deltas, and terraces. They are nearly level soils in depressions.

This wetland provides the following functions and values: flood flow alteration and sediment / toxicant retention.

This area is designated as "Zone AE", which is a mapped floodplain, in the Flood Insurance Rate Map for Fairfield County, Connecticut (09001C0441G), effective July 8, 2013. Please refer to **Appendix B** for FEMA FIRM Map.

Stream 2: USFWS Classification R5UBh1

Stream 2 is not identified on NWI mapping, but is classified as a riverine, unknown perennial, unconsolidated bottom diked/impounded (R5UBh1) watercourse. Stream 2 is located perpendicular to the railroad ROW and crosses under the railroad via culvert. The stream eventually flows into Wetland B. The watercourse is approximately 2 feet wide and contained within a stone-lined channel. Water depth varied from approximately 10 inches to 15 inches deep.

This area is designated as "Zone AE", which is a mapped floodplain, in the Flood Insurance Rate Map for Fairfield County, Connecticut (09001C0441G), effective July 8, 2013. Please refer to **Appendix B** for FEMA FIRM Map.

Wetland Complex C

Stream 3: USFWS Classification R5UBh1

Stream 3 is not identified on NWI mapping, but is classified as a riverine, unknown perennial, unconsolidated bottom diked/impounded (R5UBh1) watercourse. Stream 3 originates from a culvert and is located perpendicular to the railroad ROW. The watercourse is approximately 2 feet wide and contained within a manipulated drainage channel. Water depth varied from approximately 5 inches to 15 inches deep.

This area is designated as "Zone X" in the Flood Insurance Rate Map for Fairfield County, Connecticut (09001C0441G), effective July 8, 2013. Please refer to **Appendix B** for FEMA FIRM Map.

Stream 4: USFWS Classification R6

Stream 4 is not identified on NWI mapping, but is classified as a riverine, ephemeral (R6) watercourse. Stream 4 is located parallel to the railroad tracks, along the toe slope of rip rap along the railroad tracks. It appears this watercourse flows only during rain events and receives hydrology from surrounding landscape. The watercourse is approximately 1.5 feet wide with a rip rap substrate.

This area is designated as "Zone X" in the Flood Insurance Rate Map for Fairfield County, Connecticut (09001C0441G), effective July 8, 2013. Please refer to **Appendix B** for FEMA FIRM Map.

Wetland C: USFWS Classification: PEM

Wetland C is classified as a palustrine emergent wetland (PEM) located on the north side of the railroad bed. This is a small, closed, linear feature. This area was delineated using sequentially numbered flags 1 through 10.

The soil series identified is Udorthents-Urban land complex. Udorthents consist primarily of areas that have been cut for leveling or filled for development.

Wetland C provides the following functions and values: groundwater recharge/discharge, flood flow alteration, sediment/toxicant retention, and nutrient removal.
This area is designated as "Zone X" in the Flood Insurance Rate Map for Fairfield County, Connecticut (09001C0441G), effective July 8, 2013. Please refer to **Appendix B** for FEMA FIRM Map.
Stream 5: USFWS Classification R4SBC1

Stream 5 is not identified on NWI mapping but is classified as a riverine intermittent unconsolidated bottom seasonally flooded (R4UBC1) watercourse. Stream 5 is located north of the railroad ROW, originating from upland drainage associated with local roadways. The substrate in the watercourse consists largely of silt and leaf litter and is interspersed with cobble and gravel. The watercourse is approximately 1.5 feet wide. This watercourse eventually flows into Wetland C.

This area is designated as "Zone X" in the Flood Insurance Rate Map for Fairfield County, Connecticut (09001C0441G), effective July 8, 2013. Please refer to **Appendix B** for FEMA FIRM Map.

Wetland Complex D

Wetland D: USFWS Classification: PEM

Wetland D is classified as a palustrine emergent wetland (PEM) located on the north side of the railroad bed. This wetland is considered fringe wetlands to Mill River. The vegetation community is predominantly composed of *Phragmites*. This area was delineated using sequentially numbered flags 1 through 8.

The soil series identified is Udorthents-Urban land complex. Udorthents consist primarily of areas that have been cut for leveling or filled for development.

Wetland D provides the following functions and values: groundwater recharge/discharge, flood flow alteration, sediment/toxicant retention, and nutrient removal.

This area is designated as "Zone AE", which is a mapped floodplain, in the Flood Insurance Rate Map for Fairfield County, Connecticut (09001C0441G), effective July 8, 2013. Please refer to **Appendix B** for FEMA FIRM Map.

Stream 6 (Mill River): USFWS Classification: R2UBH

Stream 6 (Mill River) is classified as a riverine lower perennial unconsolidated bottom permanently flooded (R2UBH) watercourse. This watercourse flows directly into the Southport Harbor but does not appear to be tidally influenced based on NWI classification. The substrate of Mill River consists of unconsolidated muck and boulders. Mill River appears to be approximately 70 feet at the location of the railroad crossing.

This area is designated as "Zone AE", which is a mapped floodplain, in the Flood Insurance Rate Map for Fairfield County, Connecticut (09001C0441G), effective July 8, 2013. Please refer to **Appendix B** for FEMA FIRM Map.

Wetland Complex E

Wetland E: USFWS Classification: PEM/PFO

Wetland E is classified as a palustrine emergent (PEM) and palustrine forested (PFO) wetland located north of the Metro-North ROW and south of Interstate 95. This small wetland is heavily affected by anthropogenic activities (I-95 to the north and the railroad to the south) and receives hydrology from a drainage swale. This area was delineated using sequentially numbered flags 1 through 10. The wetland is dominated by common reed (*Phragmites australis*) and red maple (*Acer rubrum*), which are "facultative wetland" and "facultative" wetland species, respectively.

The soil series identified is Udorthents-Urban land complex. Udorthents consist primarily of areas that have been cut for leveling or filled for development. Hydrologic conditions are influenced by the storm events and surface ponding.

This wetland provides the following functions and values: flood flow alteration and sediment / toxicant retention.

This area is designated as "Zone X" in the Flood Insurance Rate Map for Fairfield County, Connecticut (09001C0441G), effective July 8, 2013. Please refer to **Appendix B** for FEMA FIRM Map.

Wetland F: USFWS Classification: PEM

Wetland F is classified as a palustrine emergent (PEM) wetland located south of the Metro-North ROW and north of Eliot Street. This small wetland is heavily affected by anthropogenic activities (shopping center to the south and the railroad to the north) and receives hydrology from the impervious surfaces of the shopping center. This area was delineated using sequentially numbered flags 1 through 11. The wetland is dominated by common reed (*Phragmites australis*), which is a "facultative wetland" species.

The soil series identified is Urban Land. Urban Land consist primarily of areas that have been cut for leveling or filled for development. Hydrologic conditions are influenced by the storm events and surface ponding.

This wetland provides the following functions and values: flood flow alteration and sediment / toxicant retention.

This area is designated as "Zone AE", which is a mapped floodplain, in the Flood Insurance Rate Map for Fairfield County, Connecticut (09001C0441G), effective July 8, 2013. Please refer to **Appendix B** for FEMA FIRM Map.

Wetland Complex F

Stream 7: USFWS Classification R5UBh1

Stream 7 is not identified on NWI mapping, but is classified as a riverine, unknown perennial, unconsolidated bottom diked/impounded (R5UBh1) watercourse. Stream 7 is located perpendicular to the railroad ROW and crosses under the railroad via culvert, into Stream 8. The watercourse is approximately 4 feet wide with a cobble, gravel, and muck substrate. Riffles were noted throughout, and water depth was approximately 4 inches deep.

This area is designated as "Zone AE", which is a mapped floodplain, in the Flood Insurance Rate Map for Fairfield County, Connecticut (09001C0441G), effective July 8, 2013. Please refer to **Appendix B** for FEMA FIRM Map.

Stream 8: USFWS Classification R5UBh1

Stream 8 is not identified on NWI mapping, but is classified as a riverine, unknown perennial, unconsolidated bottom diked/impounded (R5UBh1) watercourse. Stream 8 is located parallel to the railroad ROW and is heavily diked. This feature appears to flow off the ROW, to the south. The watercourse is approximately 5-7 feet wide with a muck substrate. Riffles were noted throughout, and water depth was approximately 4-12 inches deep.

This area is designated as "Zone AE", which is a mapped floodplain, in the Flood Insurance Rate Map for Fairfield County, Connecticut (09001C0441G), effective July 8, 2013. Please refer to **Appendix B** for FEMA FIRM Map.

Stream 9: USFWS Classification R5UBh1

Stream 9 is not identified on NWI mapping, but is classified as a riverine, unknown perennial, unconsolidated bottom diked/impounded (R5UBh1) watercourse. Stream 9 flows perpendicular to the railroad and crosses underneath the ROW and continues off-site to the south. The watercourse is approximately 19 feet wide with a cobble, gravel and muck substrate. Riffles and deep pools were noted throughout, and water depth was approximately 4-12 inches deep with pools up to 2+ feet deep.

This area is designated as "Zone AE", which is a mapped floodplain, in the Flood Insurance Rate Map for Fairfield County, Connecticut (09001C0441G), effective July 8, 2013. Please refer to **Appendix B** for FEMA FIRM Map.

Wetland G: USFWS Classification: PEM

Wetland G is classified as a palustrine emergent wetland (PEM) located on the north side of the railroad bed. This wetland is hydrologically connected to Stream 9. The vegetation community is predominantly composed of *Phragmites*. This area was delineated using sequentially numbered flags 1 through 6 and 101 through 113.

The soil series identified is Udorthents-Urban land complex. Udorthents consist primarily of areas that have been cut for leveling or filled for development.

Wetland I provides the following functions and values: groundwater recharge/discharge, flood flow alteration, sediment/toxicant retention, and nutrient removal.

This area is designated as "Zone AE", which is a mapped floodplain, in the Flood Insurance Rate Map for Fairfield County, Connecticut (09001C0441G), effective July 8, 2013. Please refer to **Appendix B** for FEMA FIRM Map.

Wetland Complex G

Wetland H: USFWS Classification: PEM/PSS

Wetlands H is classified as a palustrine emergent / palustrine scrub-shrub (PEM/PSS) wetland located on the south side of the railroad. This wetland is comprised of a constructed conservation area that Stream 10 flows into and through and is partially tidally influenced along its southern areas along Ash Creek. The conservation area includes upland islands and berms as well as a raised walkway and rock spillway. The rock spillway separates the non-tidal portion of the wetland from the tidally influenced portion. The vegetation within the non-tidally influenced portion of the wetland consists primarily of *Salix nigra*, *Salix bicolor*, *Phragmites australis*, and *Typha angustifolia*. The vegetation within the tidally influenced portion of the wetland consists of *Phragmites australis* with smaller areas of *Spartina alternifolia*.

The soil series identified is Udorthents, smoothed / Udorthents-Urban land complex. Udorthents consist primarily of areas that have been cut for leveling or filled for

development. Hydrologic conditions are influenced by the storm events and surface ponding.

Wetland H provides the following functions and values: groundwater recharge/discharge, flood flow alteration, sediment/toxicant retention, shellfish habitat, and nutrient removal.

This area is designated as "Zone AE", which is a mapped floodplain, in the Flood Insurance Rate Map for Fairfield County, Connecticut (09001C0441G), effective July 8, 2013. Please refer to **Appendix B** for FEMA FIRM Map.

Stream 10: USFWS Classification R5UBh1

Stream 10 is not identified on NWI mapping, but is classified as a riverine, unknown perennial, unconsolidated bottom diked/impounded (R5UBh1) watercourse. Stream 10 flows perpendicular to the railroad and then turns south, flowing through Wetland H and eventually into Stream 13 (Ash Creek, Tidal). The watercourse is approximately 5 feet wide with a cobble, gravel and muck substrate. Deep pools were noted throughout, and water depth was approximately 6-10 inches deep with pools up to 2+ feet deep.

This area is designated as "Zone AE", which is a mapped floodplain, in the Flood Insurance Rate Map for Fairfield County, Connecticut (09001C0441G), effective July 8, 2013. Please refer to **Appendix B** for FEMA FIRM Map.

Tidal Watercourse 11: USFWS Classification R5UBh1

Tidal Watercourse 11 is not identified on NWI mapping, but is classified as a riverine, unknown perennial, unconsolidated bottom diked/impounded (R5UBh1) watercourse. Tidal Watercourse 11 flows south, flowing from Wetland H and eventually into Stream 13 (Ash Creek, Tidal). The watercourse is approximately 5 feet wide with a cobble, gravel and muck substrate. Deep pools were noted throughout, and water depth was approximately 6-10 inches deep with pools up to 2+ feet deep.

This area is designated as "Zone AE", which is a mapped floodplain, in the Flood Insurance Rate Map for Fairfield County, Connecticut (09001C0441G), effective July 8, 2013. Please refer to **Appendix B** for FEMA FIRM Map.

Tidal Watercourse 12: USFWS Classification R5UBh1

Tidal Watercourse 12 is not identified on NWI mapping, but is classified as a riverine, unknown perennial, unconsolidated bottom diked/impounded (R5UBh1) watercourse. Tidal Watercourse 12 originates from a culvert and is located perpendicular to the UI ROW. The watercourse is approximately 2 feet wide and contained within a manipulated drainage channel. Water depth varied from approximately 5 inches to 15 inches deep.

This area is designated as "Zone AE", which is a mapped floodplain, in the Flood Insurance Rate Map for Fairfield County, Connecticut (09001C0441G), effective July 8, 2013. Please refer to **Appendix B** for FEMA FIRM Map.

Stream 13 (Ash Creek, Tidal, southwestern crossing): USFWS Classification: E1UBL

Ash Creek is classified as an estuarine subtidal unconsolidated bottom subtidal (E1UBL) watercourse according to USFWS National Wetland Inventory (NWI) mapping. The watercourse flows south into the Long Island Sound and is subject to the ebb and flood of the tides. The substrate of the creek consists of an unconsolidated organic muck. During low tide, expanses of the substrate are exposed, forming intertidal flats that provide habitat for shellfish, namely mussels, and foraging habitat for birds. Some intertidal areas are stabilized with dense vegetation, forming low and high marsh habitat. The vegetation forming the marsh habitats consists primarily of *Spartina alterniflora*, with smaller amounts of *Phragmites australis*.

This area is designated as "Zone AE", which is a mapped floodplain, in the Flood Insurance Rate Map for Fairfield County, Connecticut (09001C0441G), effective July 8, 2013. Please refer to **Appendix B** for FEMA FIRM Map.

Tidal Wetland I: USFWS Classification: PEM/PSS

Tidal Wetland I is classified as a palustrine emergent (PEM) wetland located on the south side of the railroad. This wetland is tidally influenced along Ash Creek. The vegetation within this tidally influenced wetland consists of *Phragmites australis* with smaller areas of *Spartina alternifolia*.

The soil series identified is Udorthents, smoothed / Udorthents-Urban land complex. Udorthents consist primarily of areas that have been cut for leveling or filled for development. Hydrologic conditions are influenced by the storm events and surface ponding.

Tidal Wetland I provides the following functions and values: groundwater recharge/discharge, flood flow alteration, sediment/toxicant retention, shellfish habitat, and nutrient removal.

This area is designated as "Zone AE", which is a mapped floodplain, in the Flood Insurance Rate Map for Fairfield County, Connecticut (09001C0441G), effective July 8, 2013. Please refer to **Appendix B** for FEMA FIRM Map.

Wetland Complex H

Stream 13 (Ash Creek, Tidal, northeastern crossing): USFWS Classification: E1UBL

Ash Creek is classified as an estuarine subtidal unconsolidated bottom subtidal (E1UBL) watercourse according to USFWS National Wetland Inventory (NWI) mapping. The

watercourse flows south into the Long Island Sound and is subject to the ebb and flood of the tides. The substrate of the creek consists of an unconsolidated organic muck. During low tide, expanses of the substrate are exposed, forming intertidal flats that provide habitat for shellfish, namely mussels, and foraging habitat for birds. The intertidal areas are stabilized with dense vegetation, forming high marsh habitat. The vegetation forming the marsh habitat consists of *Phragmites australis*. Slopes in the vicinity of the railroad crossing over the creek are protected by riprap, which also provides substrate for mussels and tidal vegetation.

This area is designated as "Zone AE", which is a mapped floodplain, in the Flood Insurance Rate Map for Fairfield County, Connecticut (09001C0441G), effective July 8, 2013. Please refer to **Appendix B** for FEMA FIRM Map.

Tidal Wetland J: USFWS Classification: E1UBL

Tidal Wetland J is classified as an estuarine and marine deep-water wetland (E1UBL) located on the south side of the railroad. This area floods during high tide.

The soils map identifies this area as Water.

Tidal Wetland J provides the following functions and values: groundwater recharge/discharge, flood flow alteration, sediment/toxicant retention, shellfish habitat, and nutrient removal.

This area is designated as "Zone AE", which is a mapped floodplain, in the Flood Insurance Rate Map for Fairfield County, Connecticut (09001C0441G), effective July 8, 2013. Please refer to **Appendix B** for FEMA FIRM Map.

Wetland Complex I

Stream 14 (Pequonnock River): USFWS Classification: E1UBL

Pequonnock River is classified as an estuarine subtidal unconsolidated bottom subtidal (E1UBL) watercourse according to USFWS National Wetland Inventory (NWI) mapping. The watercourse flows south into the Bridgeport Harbor which is a tributary to the Long Island Sound and is subject to the ebb and flood of the tides. The substrate of the river was not observed due to safety reasons. During low tide, expanses of the substrate are exposed, forming intertidal flats that provide habitat for shellfish, namely mussels, and foraging habitat for birds. Some intertidal areas are stabilized with dense vegetation, forming low and high marsh habitat. The vegetation forming the marsh habitats consists of *Phragmites australis*. Slopes in the vicinity of the railroad crossing over the river are protected by riprap, which also provides substrate for mussels and tidal vegetation.

This area is designated as "Zone AE", which is a mapped floodplain, in the Flood Insurance Rate Map for Fairfield County, Connecticut (09001C0441G), effective July 8, 2013. Please refer to **Appendix B** for FEMA FIRM Map.

VII. VERNAL POOL INVESTIGATION

Identification of vernal pools can only be verified during the spring as they are sensitive to seasonal water fluctuations and temperatures. In a typical season, amphibians will begin their migration to a pool in late winter/early spring as the temperatures begin to rise and remain consistently above freezing and after a good amount of precipitation. Vernal pools are typically identified based on the presence of one or more obligate species which include: spotted salamander (*Ambystoma maculatum*), marbled salamander (*Ambystoma opacum*), Jefferson salamander (*Ambystoma jeffersonianum*), blue-spotted salamander (*Ambystoma laterale*), blue-spotted-Jefferson complex, wood frog *(Rana sylvatica*), and fairy shrimp (*Anostraca*). Evidence of amphibian breeding includes the presence of salamander spermatophores at the bottom of the pool, egg masses attached to overhanging vegetation, the presence of tadpoles or larvae, presence of adults within the pool or adjacent uplands, or calling adult wood frogs. Fairy shrimp are often observed through water sampling, but can sometimes be seen swimming in the pool if the water is clear enough.

In the State of Connecticut, vernal pools are identified through field verification, as an official vernal pool inventory is not in place at this time. The timing of the field study was established to coincide with the optimum time-of-year to identify vernal pools and any fauna that may use such features. During the field visits, no vernal pools were identified along the project study area.

VIII. HABITAT ASSESSMENT

According to the Resource Map (see **Appendix B**) three (3) Natural Diversity areas are crossed by the ROW. These areas surround the ROW crossings at Sasco Creek, Ash Creek, and the Pequonnock River. On September 6, 2019, BL submitted an application to request a review of state listed species from the CTDEEP Natural Diversity Database (NDDB). To date no response has been received from the CTDEEP NDDB. This correspondence can be found in **Appendix F**.

According to the U.S. Fish and Wildlife Service Information for Planning and Conservation (IPaC) tool, two (2) federally listed species may occur or could potentially be affected by activities within the project area. The northern long-eared bat (*Myotis septentrionalis*) and red knot (*Calidris canutus rufa*), which are both federally threatened.

The red knot (*Calidris canutus rufa*) is a federally threatened migratory shorebird that requires marsh or mudflat habitat and is known to occur along the shore in Connecticut. Potential marsh and mudflat habitat is present along portions of the tidally-influenced features throughout the corridor. According to Cornell Lab's EBird.org, the closest known occurrence of this species was recorded approximately 2,600 feet to the east of the

railroad corridor, northeast of Seaside Park; this is the most recent occurrence recorded of this species, in August 2016. Given the limited marsh and mudflat habitat present within the immediate vicinity of the project, and known occurrences within this part of the state, it is unlikely that the red knot occurs within the project area.

The northern long-eared bat (*Myotis septentrionalis*) is a federally threatened bat species. However, as stated in the IPaC correspondence dated September 6, 2019, the proposed project is not likely to result in unauthorized take of the northern long-eared bat. The official IPaC reports and EBird.org mapping can be found in **Appendix G**.

IX. SUMMARY

BL Companies identified nine (9) regulated and jurisdictional wetland areas and thirteen (13) watercourses/streams within the project area. Among these areas are Ash Creek and the Pequonnock River, parts of which were identified and mapped based on aerial photography. Due to safety concerns and prohibited access, field data could not be collected for all locations of these features. Poorly drained soils, hydric soils, hydrophytic vegetation, and hydrology were all observed in the wetland locations satisfying the criteria of the State and ACOE methodology for wetland delineations. Three (3) watercourses were tidal in nature and a fourth is perennial with tidal influence. In addition to the descriptions within the previous sections of this report, supporting data forms and photographs are attached that document the findings of the on-site field investigations.

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APPENDIX: A Project Location Mapping

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Legend

Project Location

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1 inch = 2,500 feet

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Notes: Floodplain data sourced from FEMA NFHL Dataset

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Fairfield to Congress
115kV T-Line Project
Fairfield County, CT
USGS 7.5-Minute Topographic Quadrangle
Project Location Map

PRJ NUM: 2102261

APPENDIX A SHEET NUMBER: 1 OF 1



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APPENDIX: B Resource Mapping

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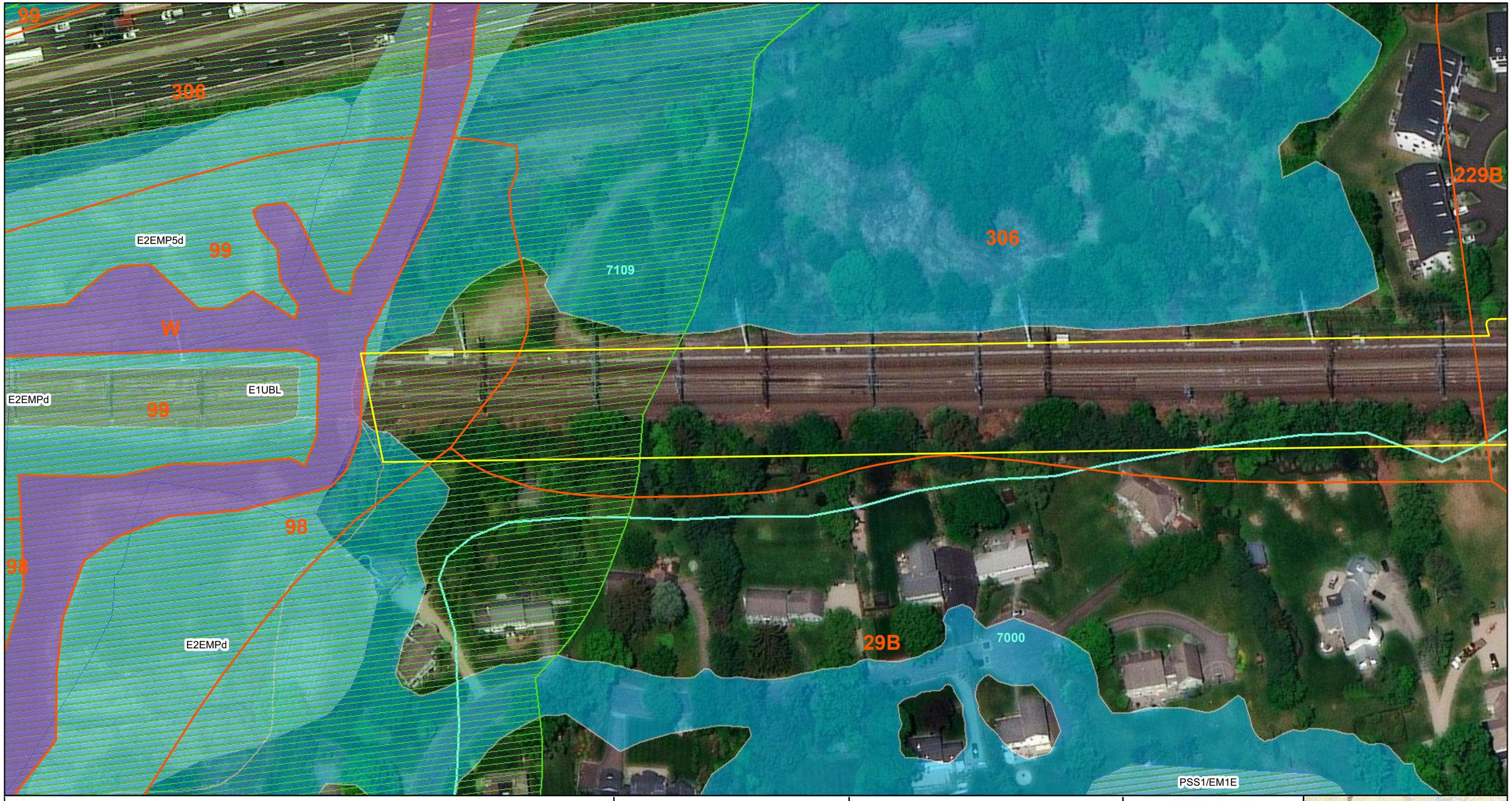

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- Soil Type / Boundary
- Subregional Basins
- CAM Zone
- Aquifer Protection Area
- NWI Mapped Feature

Shellfish Classification

- Prohibited
- Natural Diversity Area

FEMA Zone Type

- FLOODWAY
- 0.2 PCT ANNUAL CHANCE FLOOD HAZARD
- 1 PCT ANNUAL CHANCE FLOOD HAZARD

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1 inch = 100 feet

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Fairfield to Congress 115kV T-Line Project
Fairfield County, CT
Background Resource Map

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	APPENDIX B SHEET NUMBER: 1 OF 39



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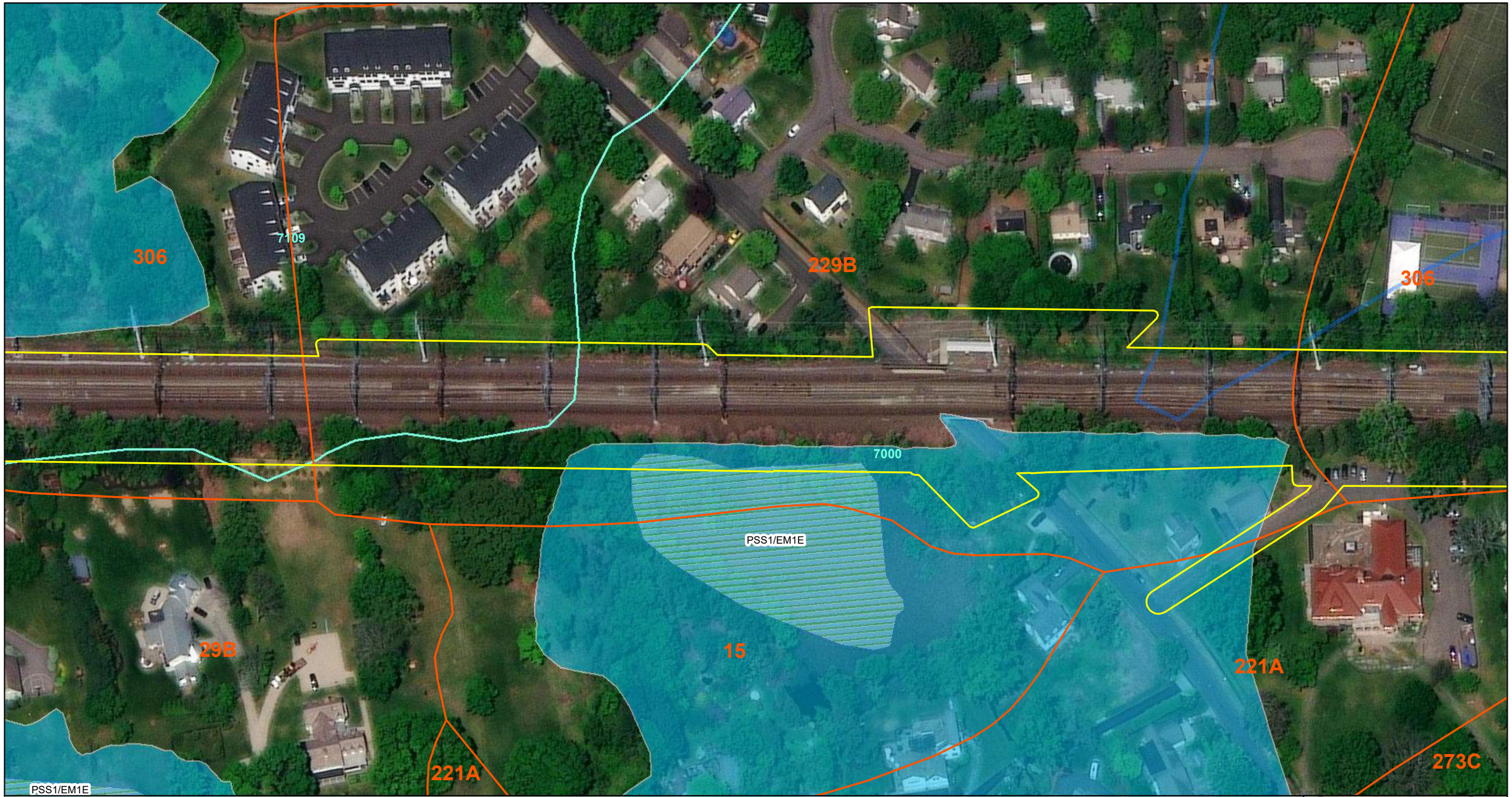

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Soil Type / Boundary

Shellfish Classification

Prohibited

Natural Diversity Area

Subregional Basins

CAM Zone

Aquifer Protection Area

NWI Mapped Feature

FEMA Zone Type

FLOODWAY

0.2 PCT ANNUAL CHANCE FLOOD HAZARD

1 PCT ANNUAL CHANCE FLOOD HAZARD

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Fairfield County, CT
Background Resource Map

PRJ NUM: 2102261

APPENDIX B SHEET NUMBER: 2 OF 39



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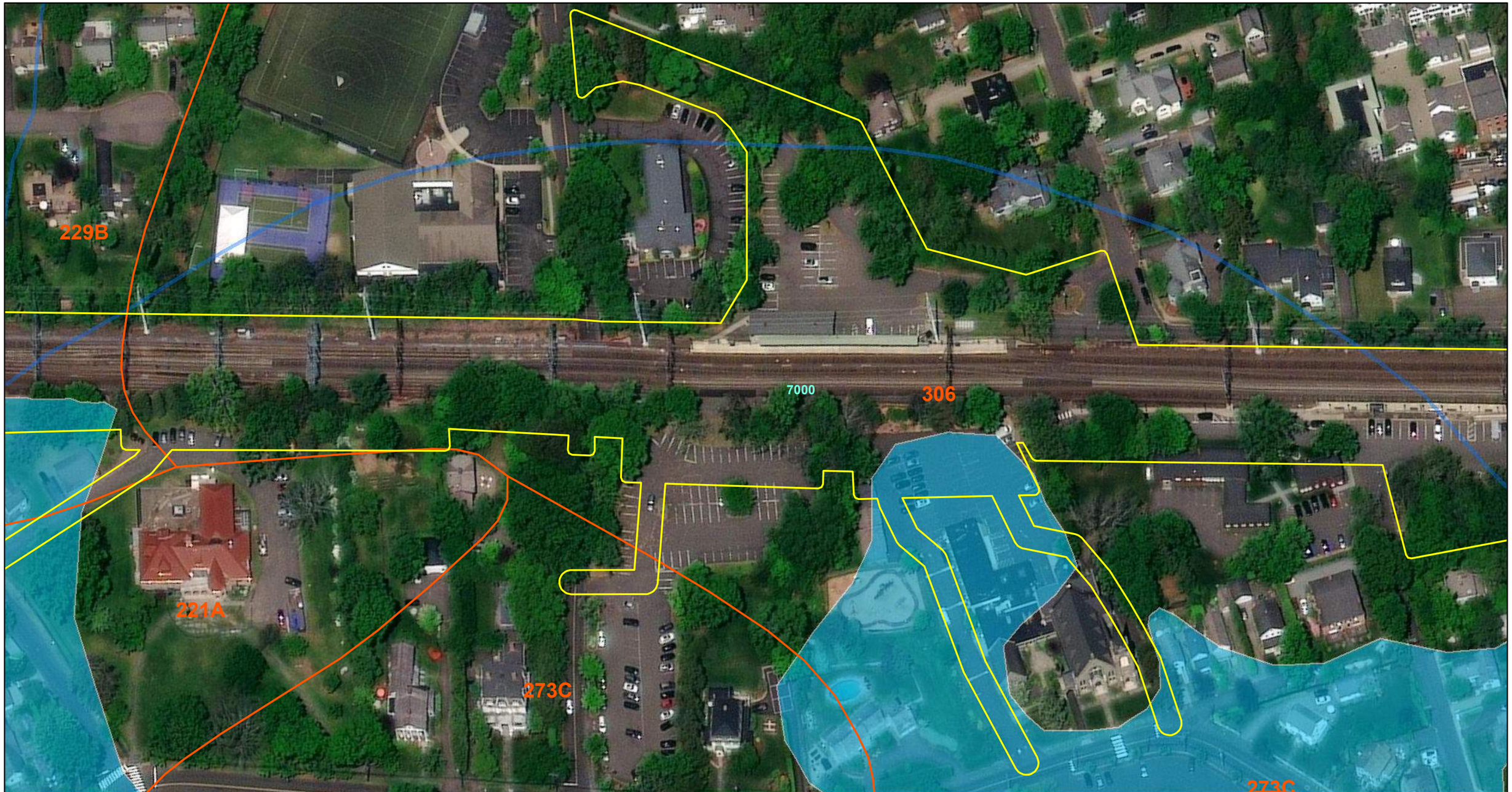

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Soil Type / Boundary

Shellfish Classification

Prohibited

Natural Diversity Area

Subregional Basins

CAM Zone

Aquifer Protection Area

NWI Mapped Feature

FEMA Zone Type

FLOODWAY

0.2 PCT ANNUAL CHANCE FLOOD HAZARD

1 PCT ANNUAL CHANCE FLOOD HAZARD

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Fairfield to Congress 115kV T-Line Project
Fairfield County, CT
Background Resource Map

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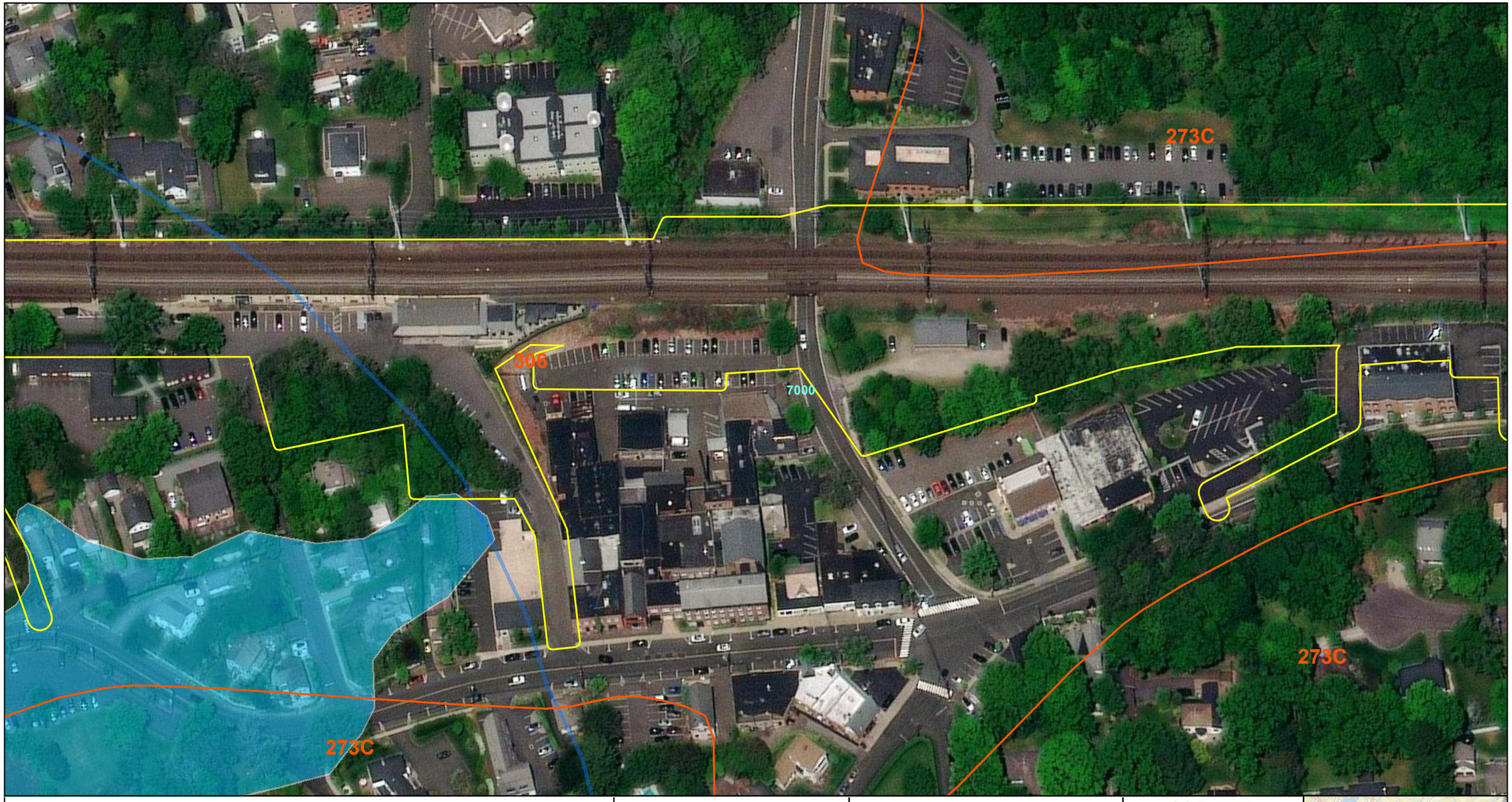

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- Soil Type / Boundary
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- Aquifer Protection Area
- NWI Mapped Feature

Shellfish Classification

- Prohibited
- Natural Diversity Area

FEMA Zone Type

- FLOODWAY
- 0.2 PCT ANNUAL CHANCE FLOOD HAZARD
- 1 PCT ANNUAL CHANCE FLOOD HAZARD

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115kV T-Line Project
Fairfield County, CT
Background Resource Map

PRJ NUM: 2102261

APPENDIX B SHEET NUMBER: 4 OF 39



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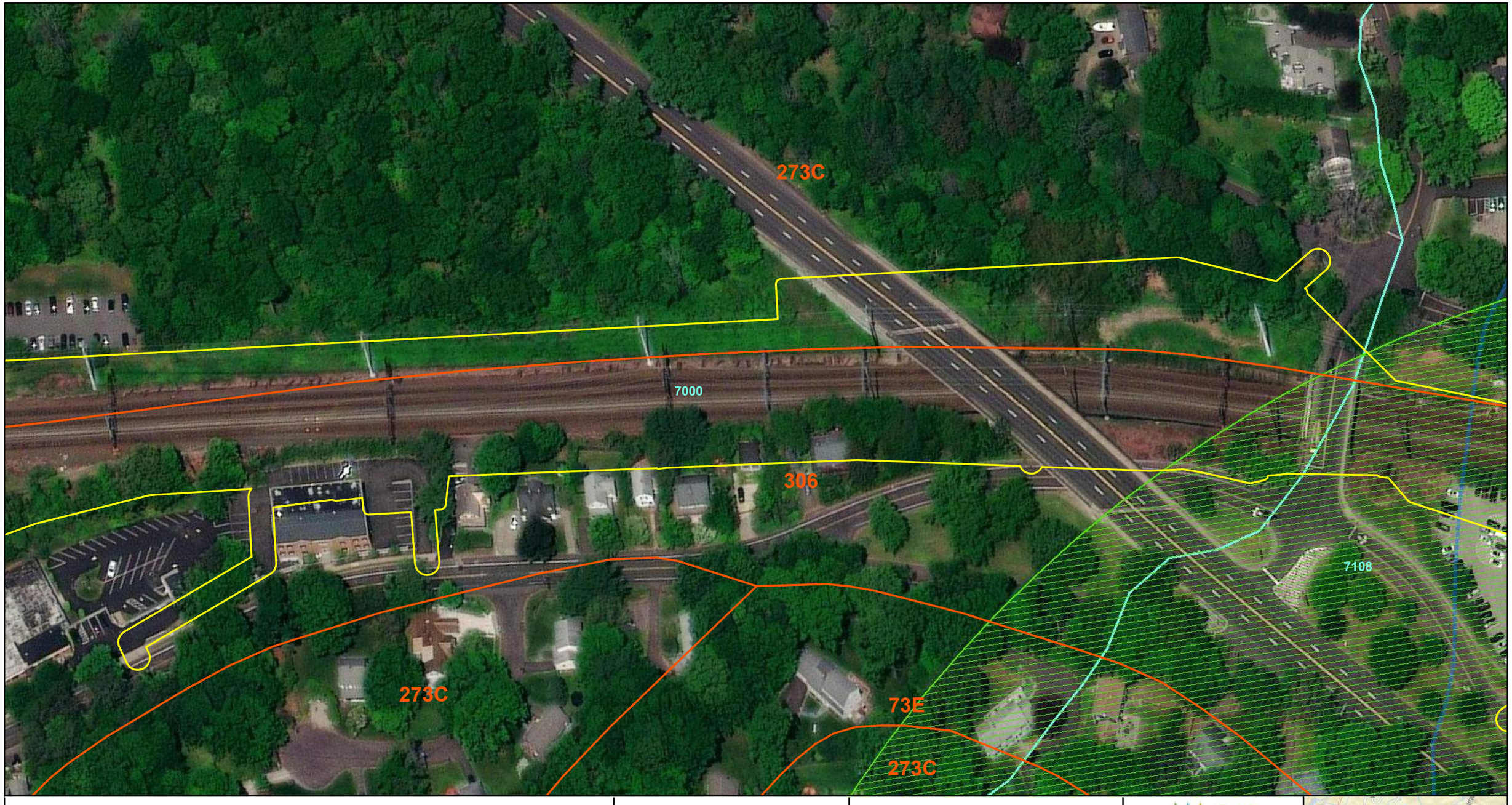

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- Aquifer Protection Area
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Shellfish Classification

- Prohibited
- Natural Diversity Area

FEMA Zone Type

- FLOODWAY
- 0.2 PCT ANNUAL CHANCE FLOOD HAZARD
- 1 PCT ANNUAL CHANCE FLOOD HAZARD

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Fairfield to Congress
115kV T-Line Project
Fairfield County, CT
Background Resource Map

PRJ NUM: 2102261

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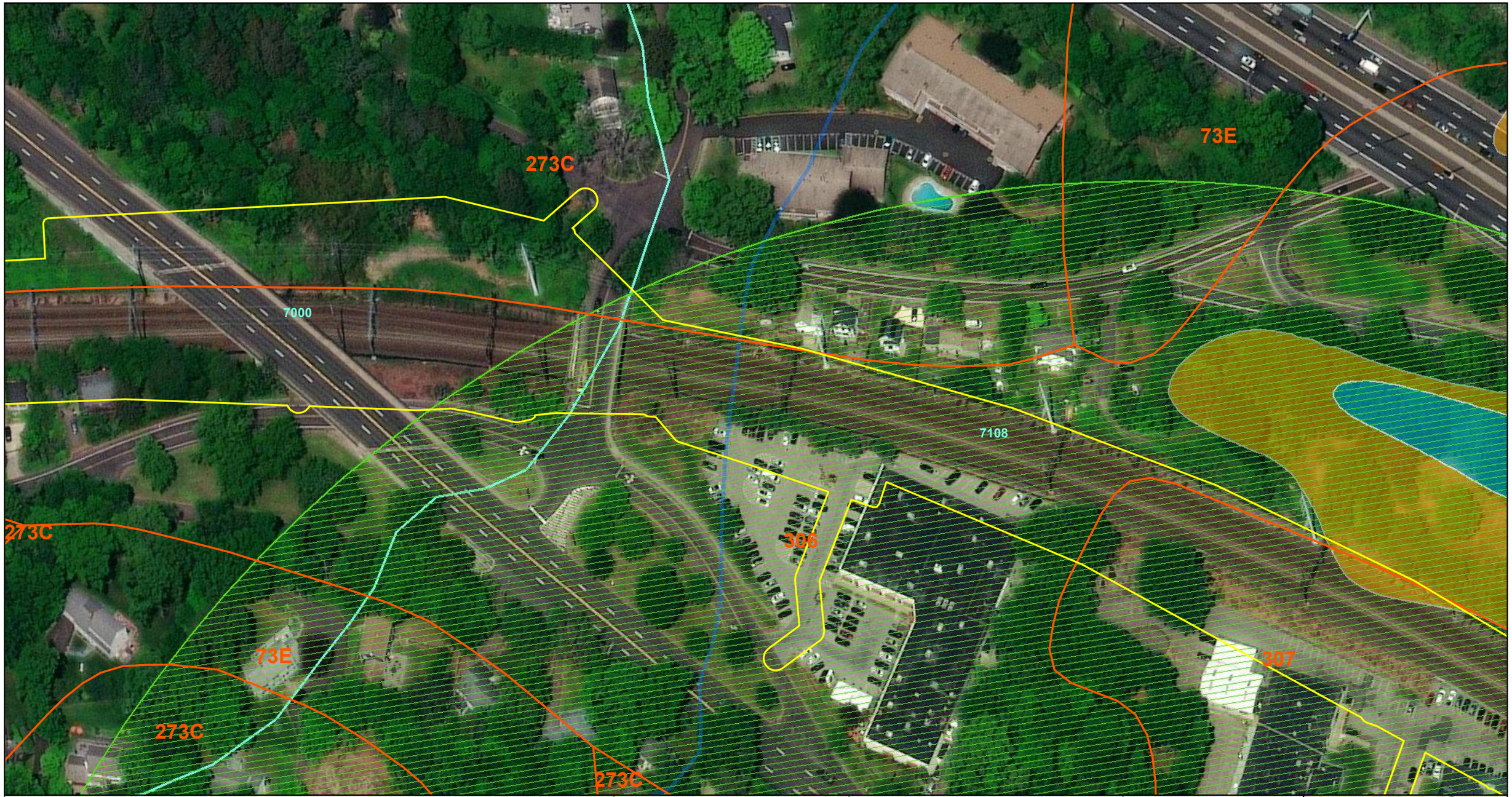

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Shellfish Classification

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- Natural Diversity Area

FEMA Zone Type

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- 1 PCT ANNUAL CHANCE FLOOD HAZARD

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115kV T-Line Project
Fairfield County, CT
Background Resource Map

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APPENDIX B SHEET NUMBER: 6 OF 39



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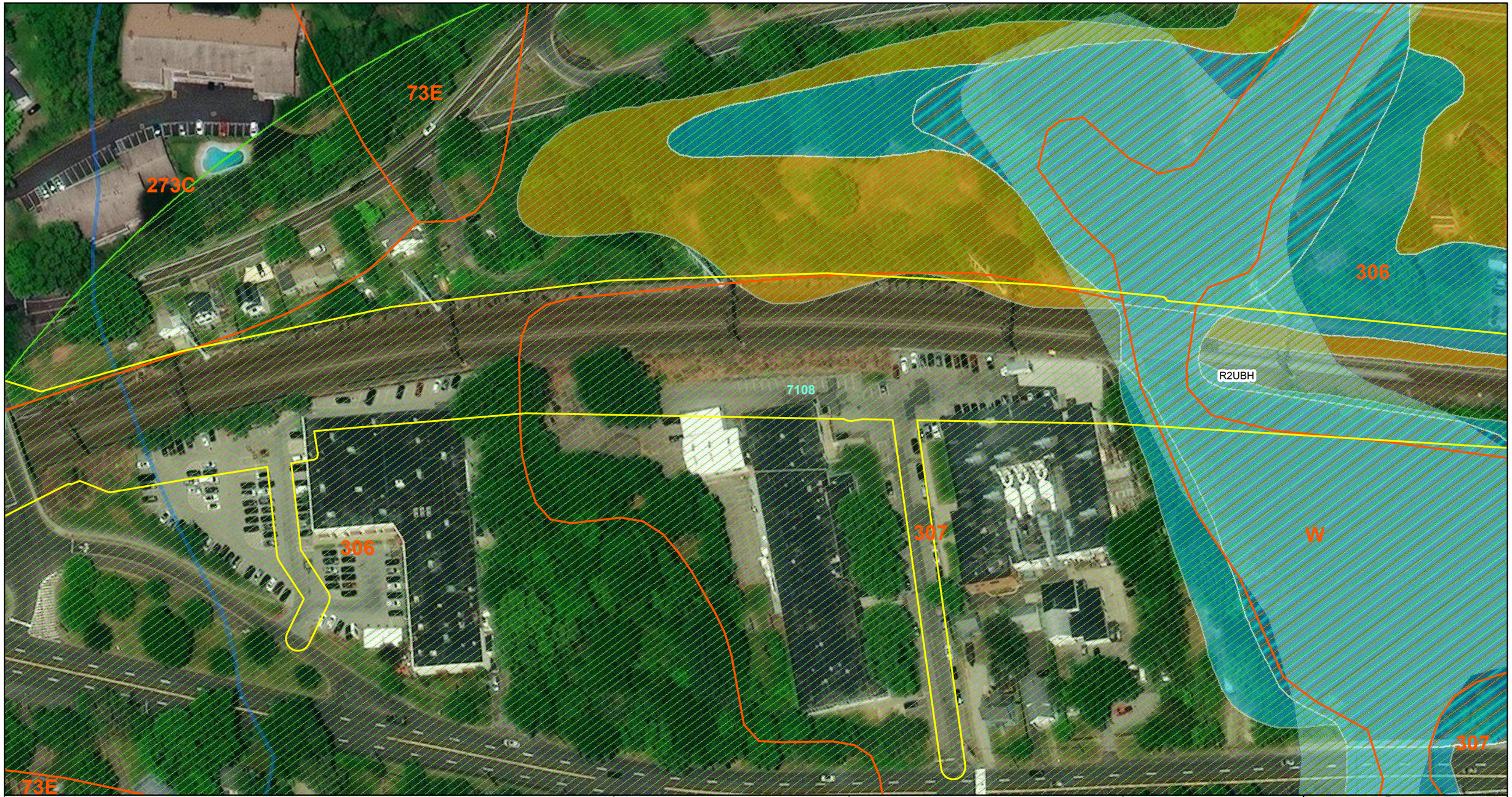

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- CAM Zone
- Aquifer Protection Area
- NWI Mapped Feature

Shellfish Classification

- Prohibited
- Natural Diversity Area

FEMA Zone Type

- FLOODWAY
- 0.2 PCT ANNUAL CHANCE FLOOD HAZARD
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Fairfield to Congress 115kV T-Line Project Fairfield County, CT Background Resource Map

PRJ NUM: 2102261

APPENDIX B SHEET NUMBER: 7 OF 39



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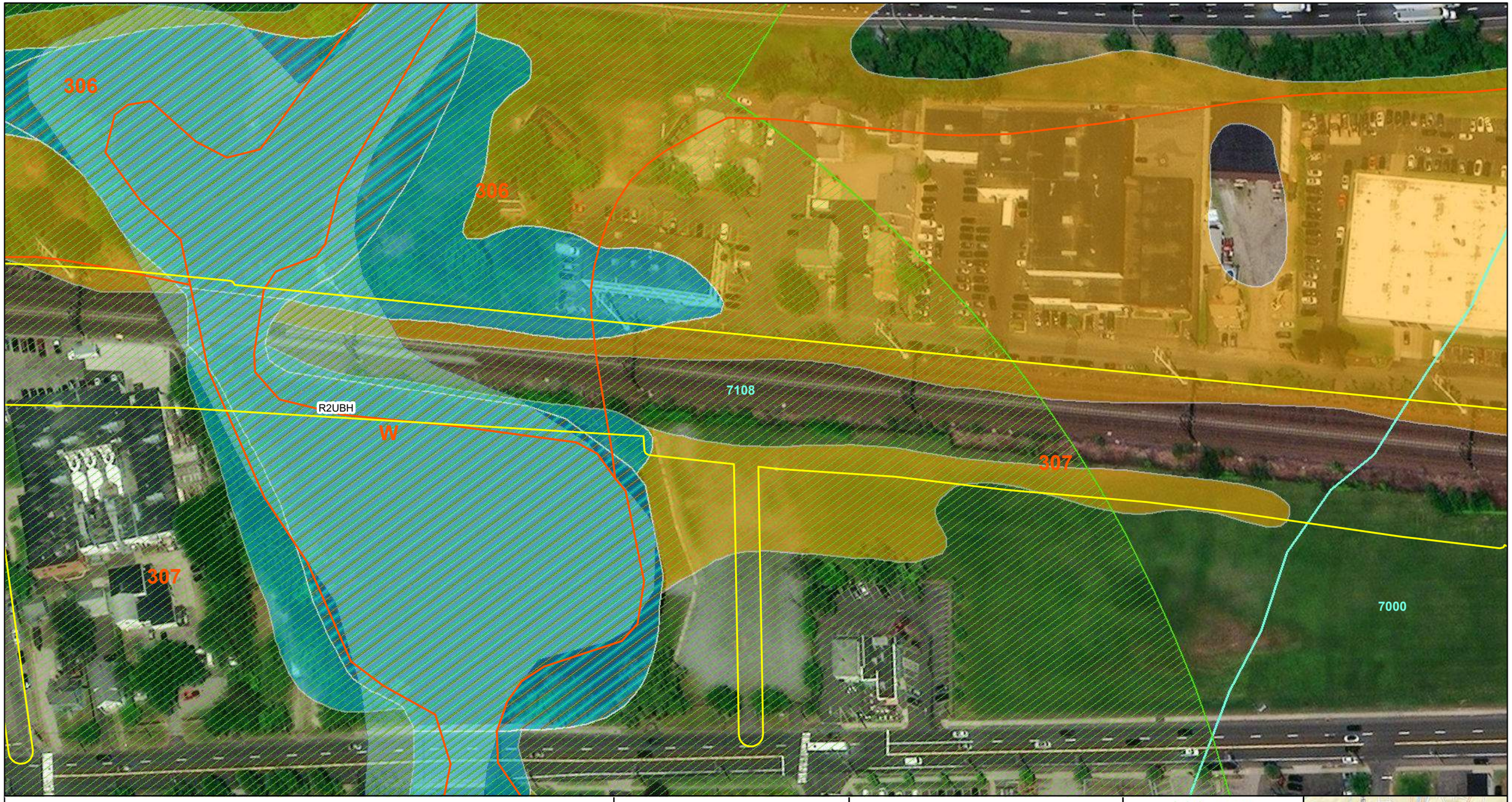

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- CAM Zone
- Aquifer Protection Area
- NWI Mapped Feature

Shellfish Classification

- Prohibited
- Natural Diversity Area

FEMA Zone Type

- FLOODWAY
- 0.2 PCT ANNUAL CHANCE FLOOD HAZARD
- 1 PCT ANNUAL CHANCE FLOOD HAZARD

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Fairfield to Congress
115kV T-Line Project
Fairfield County, CT
Background Resource Map

PRJ NUM: 2102261

APPENDIX B SHEET NUMBER: 8 OF 39



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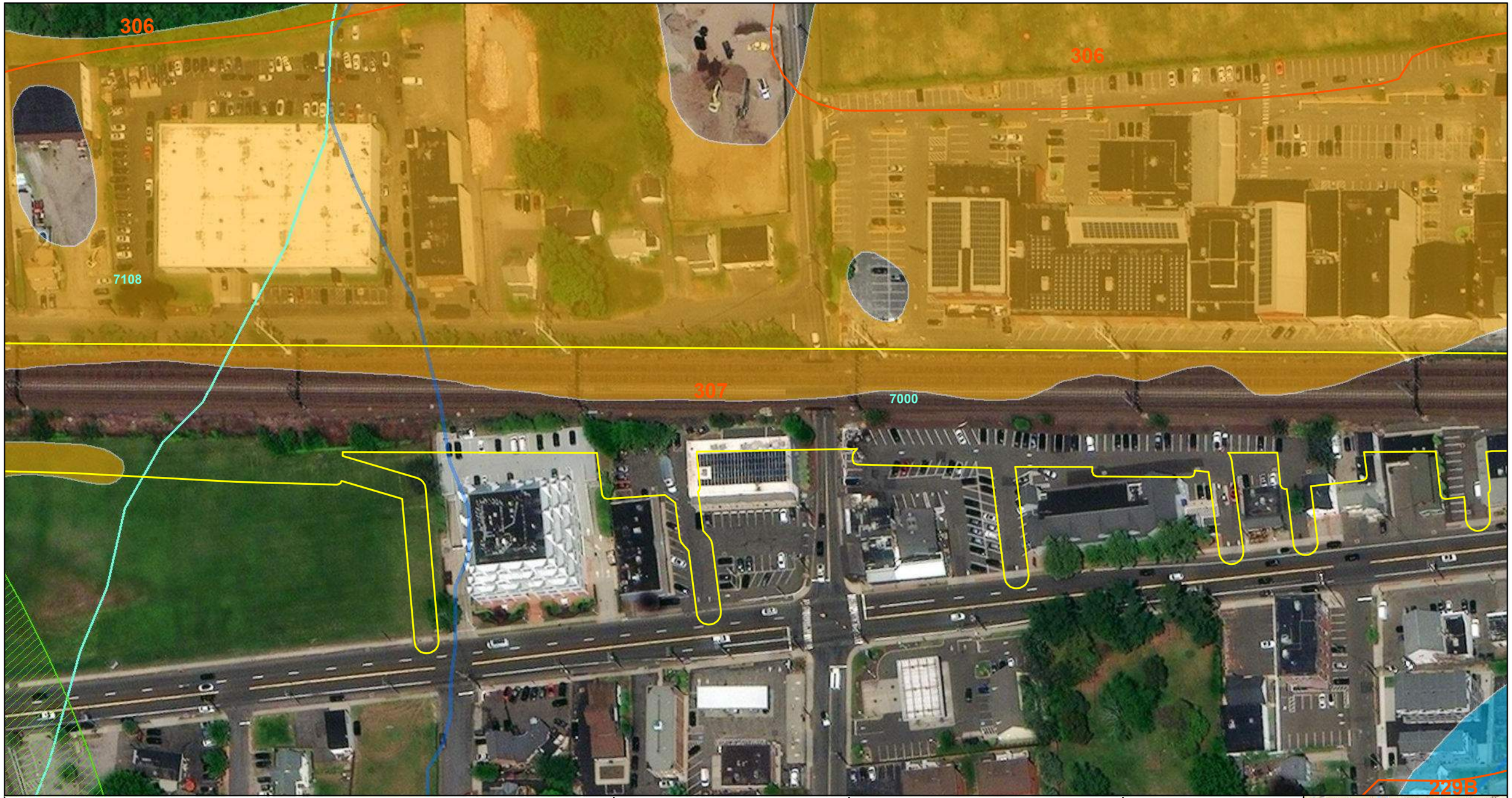

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- Soil Type / Boundary
- Subregional Basins
- CAM Zone
- Aquifer Protection Area
- NWI Mapped Feature

Shellfish Classification

- Prohibited
- Natural Diversity Area

FEMA Zone Type

- FLOODWAY
- 0.2 PCT ANNUAL CHANCE FLOOD HAZARD
- 1 PCT ANNUAL CHANCE FLOOD HAZARD

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1 inch = 100 feet

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Fairfield to Congress
115kV T-Line Project
Fairfield County, CT
Background Resource Map

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Version: Version 4	**DATE:** 10/7/2022
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	APPENDIX B SHEET NUMBER: 9 OF 39



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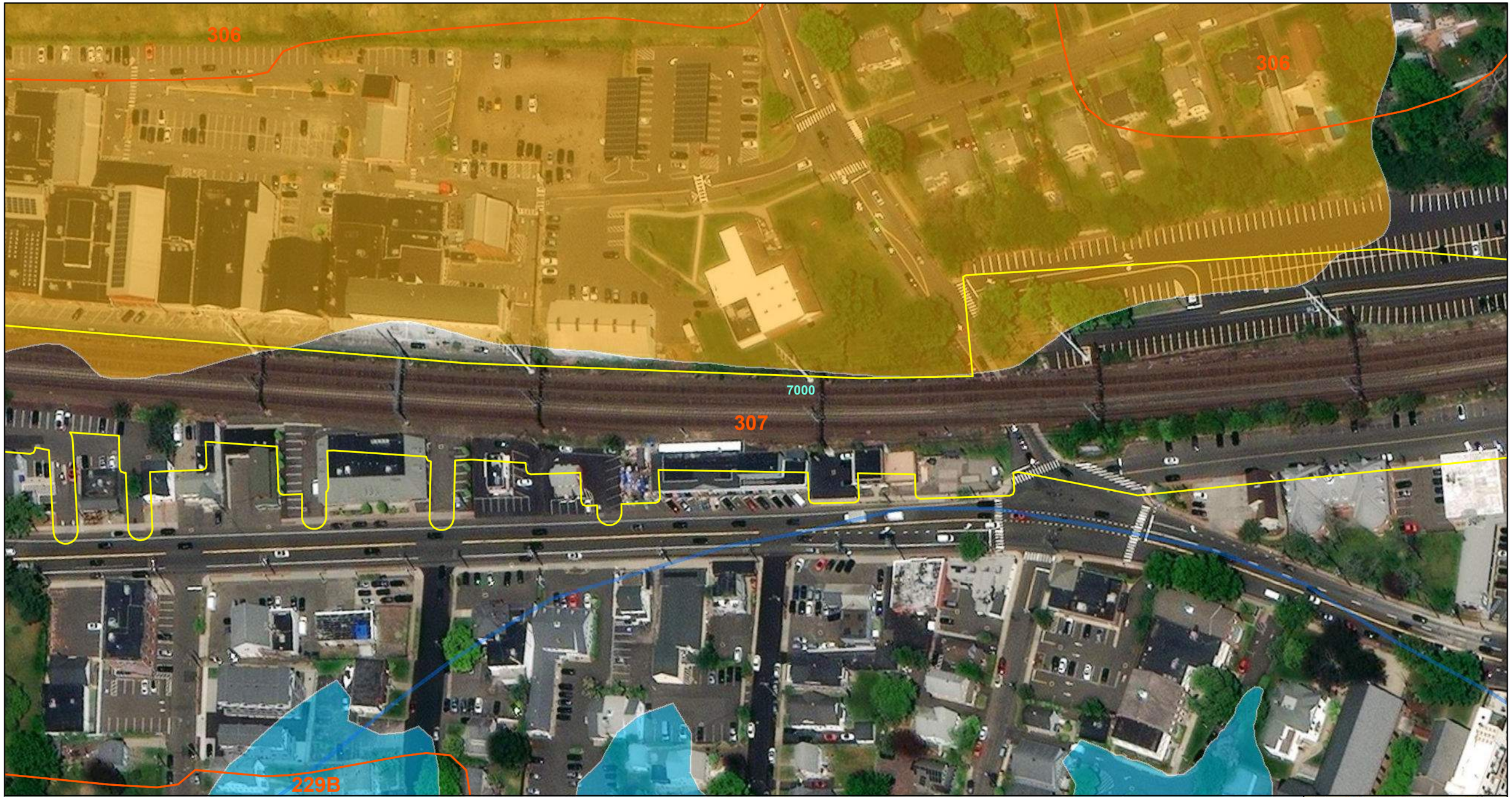

Legend

Soil Type / Boundary

Shellfish Classification

Prohibited

Natural Diversity Area

Subregional Basins

CAM Zone

Aquifer Protection Area

NWI Mapped Feature

FEMA Zone Type

FLOODWAY

0.2 PCT ANNUAL CHANCE FLOOD HAZARD

1 PCT ANNUAL CHANCE FLOOD HAZARD

Service Layer Credits: Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, (c) OpenStreetMap contributors, and the GIS User Community
Source: Esri, Maxar, Earthstar Geographics, and the GIS User Community

1:1,200
1 inch = 100 feet

50 25 0 50 100 Feet

Architecture Engineering Environmental Land Surveying
BL Companies

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Fairfield to Congress 115kV T-Line Project Fairfield County, CT Background Resource Map

PRJ NUM: 2102261

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Legend

Soil Type / Boundary

Shellfish Classification

Prohibited

Natural Diversity Area

Subregional Basins

CAM Zone

Aquifer Protection Area

NWI Mapped Feature

FEMA Zone Type

FLOODWAY

0.2 PCT ANNUAL CHANCE FLOOD HAZARD

1 PCT ANNUAL CHANCE FLOOD HAZARD

Service Layer Credits: Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, (c) OpenStreetMap contributors, and the GIS User Community
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1:1,200
1 inch = 100 feet

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Fairfield to Congress 115kV T-Line Project Fairfield County, CT Background Resource Map

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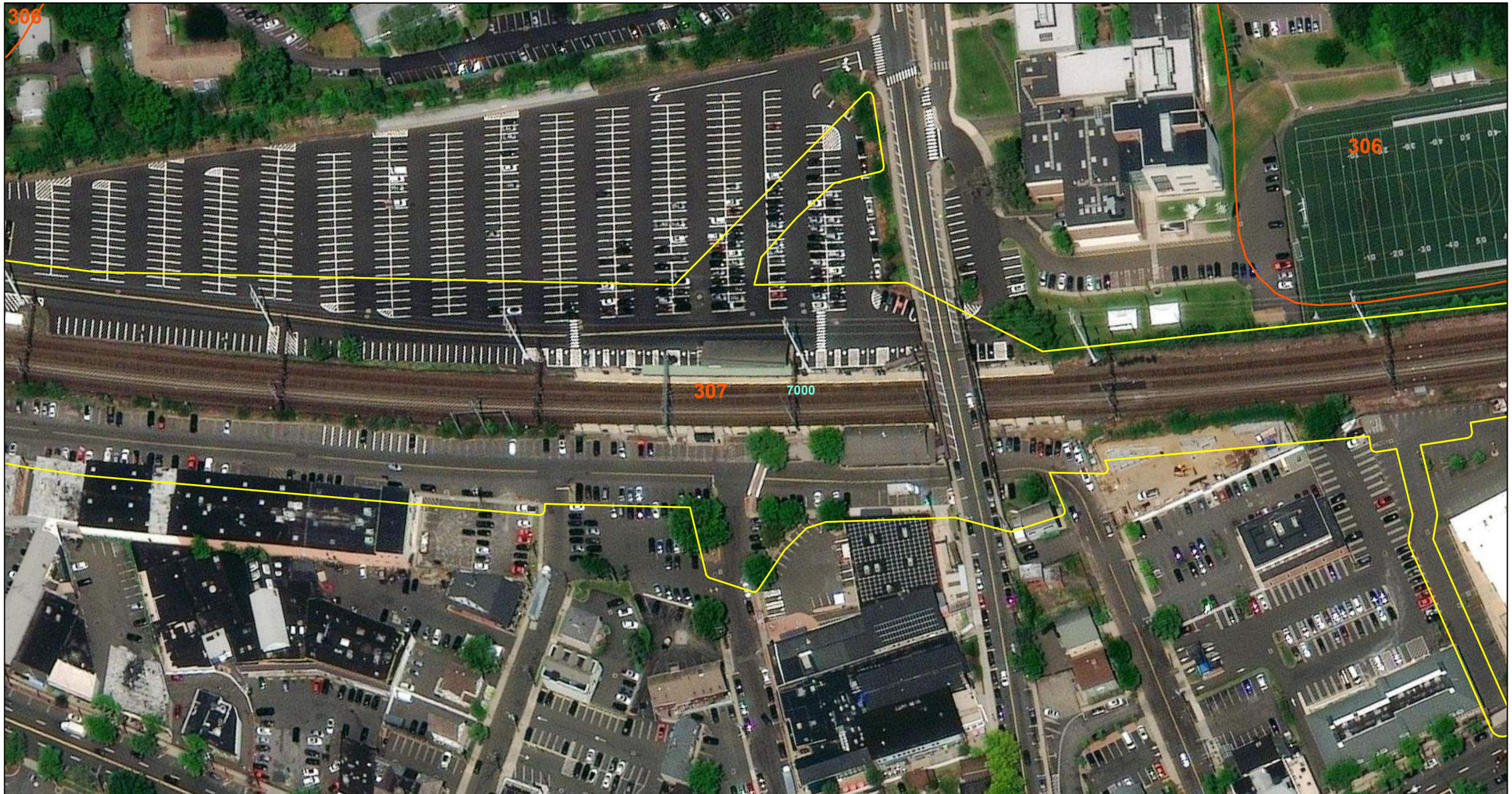

Legend

- Soil Type / Boundary
- Subregional Basins
- CAM Zone
- Aquifer Protection Area
- NWI Mapped Feature

Shellfish Classification

- Prohibited
- Natural Diversity Area

FEMA Zone Type

- FLOODWAY
- 0.2 PCT ANNUAL CHANCE FLOOD HAZARD
- 1 PCT ANNUAL CHANCE FLOOD HAZARD

Service Layer Credits: Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, (c) OpenStreetMap contributors, and the GIS User Community
Source: Esri, Maxar, Earthstar Geographics, and the GIS User Community

1:1,200
1 inch = 100 feet

50 25 0 50 100 Feet

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Fairfield County, CT
Background Resource Map

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Legend

Soil Type / Boundary

Shellfish Classification

Prohibited

Natural Diversity Area

Subregional Basins

CAM Zone

Aquifer Protection Area

NWI Mapped Feature

FEMA Zone Type

FLOODWAY

0.2 PCT ANNUAL CHANCE FLOOD HAZARD

1 PCT ANNUAL CHANCE FLOOD HAZARD

Service Layer Credits: Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, (c) OpenStreetMap contributors, and the GIS User Community
Source: Esri, Maxar, Earthstar Geographics, and the GIS User Community

1:1,200
1 inch = 100 feet

50 25 0 50 100 Feet

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UI AVANGRID

Fairfield to Congress 115kV T-Line Project
Fairfield County, CT
Background Resource Map

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Legend

Soil Type / Boundary

Shellfish Classification

Prohibited

Natural Diversity Area

Subregional Basins

CAM Zone

Aquifer Protection Area

NWI Mapped Feature

FEMA Zone Type

FLOODWAY

0.2 PCT ANNUAL CHANCE FLOOD HAZARD

1 PCT ANNUAL CHANCE FLOOD HAZARD

Service Layer Credits: Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, (c) OpenStreetMap contributors, and the GIS User Community
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1:1,200
1 inch = 100 feet

50 25 0 50 100 Feet

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UI AVANGRID

Fairfield to Congress 115kV T-Line Project
Fairfield County, CT
Background Resource Map

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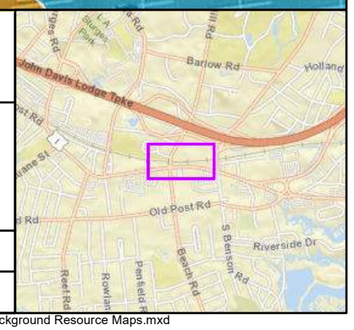
	APPENDIX B SHEET NUMBER: 14 OF 39



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Legend

Soil Type / Boundary

Shellfish Classification

Prohibited

Natural Diversity Area

Subregional Basins

CAM Zone

Aquifer Protection Area

NWI Mapped Feature

FEMA Zone Type

FLOODWAY

0.2 PCT ANNUAL CHANCE FLOOD HAZARD

1 PCT ANNUAL CHANCE FLOOD HAZARD

Service Layer Credits: Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, (c) OpenStreetMap contributors, and the GIS User Community
Source: Esri, Maxar, Earthstar Geographics, and the GIS User Community

1:1,200
1 inch = 100 feet

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Fairfield to Congress 115kV T-Line Project Fairfield County, CT Background Resource Map

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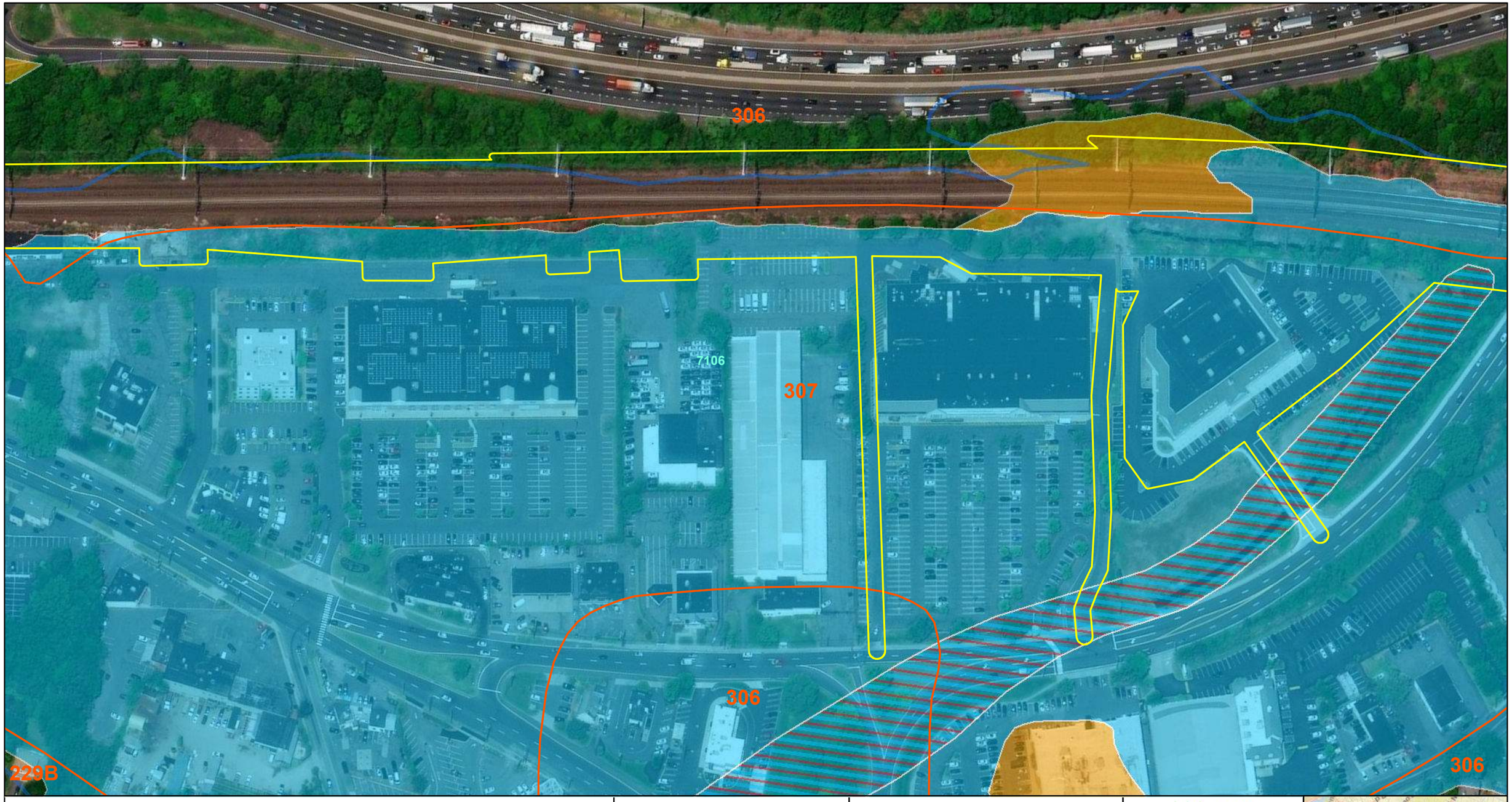

Legend

- Soil Type / Boundary
- Subregional Basins
- CAM Zone
- Aquifer Protection Area
- NWI Mapped Feature

Shellfish Classification

- Prohibited
- Natural Diversity Area

FEMA Zone Type

- FLOODWAY
- 0.2 PCT ANNUAL CHANCE FLOOD HAZARD
- 1 PCT ANNUAL CHANCE FLOOD HAZARD

Service Layer Credits: Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, (c) OpenStreetMap contributors, and the GIS User Community
Source: Esri, Maxar, Earthstar Geographics, and the GIS User Community

1:1,800
1 inch = 150 feet

50 25 0 50 100 Feet

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Fairfield to Congress 115kV T-Line Project
Fairfield County, CT
Background Resource Map

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	APPENDIX B SHEET NUMBER: 16 OF 39



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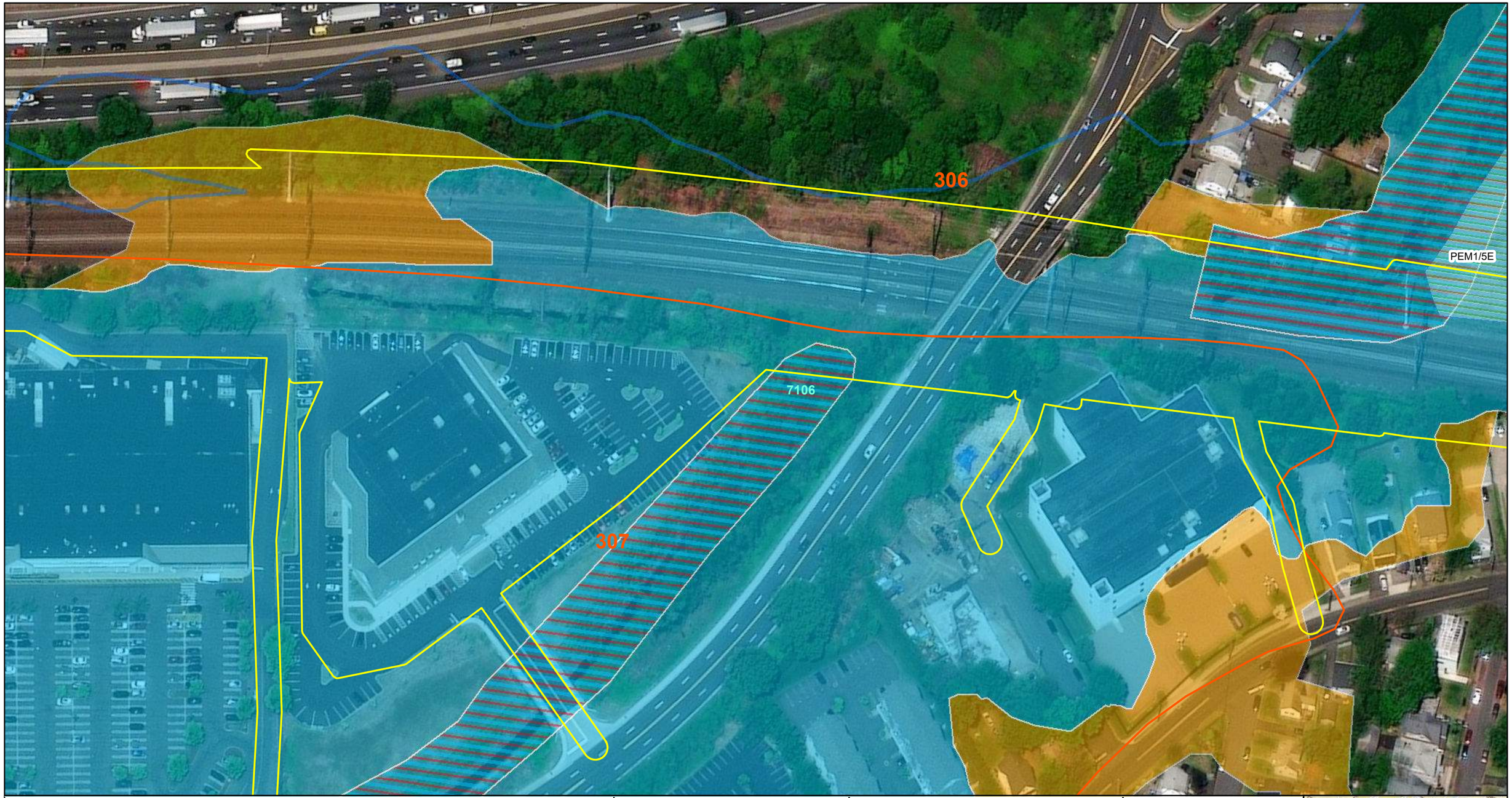

Legend

- Soil Type / Boundary
- Subregional Basins
- CAM Zone
- Aquifer Protection Area
- NWI Mapped Feature

Shellfish Classification

- Prohibited
- Natural Diversity Area

FEMA Zone Type

- FLOODWAY
- 0.2 PCT ANNUAL CHANCE FLOOD HAZARD
- 1 PCT ANNUAL CHANCE FLOOD HAZARD

Service Layer Credits: Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, (c) OpenStreetMap contributors, and the GIS User Community
Source: Esri, Maxar, Earthstar Geographics, and the GIS User Community

1:1,200
1 inch = 100 feet

50 25 0 50 100 Feet

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Fairfield to Congress 115kV T-Line Project Fairfield County, CT Background Resource Map

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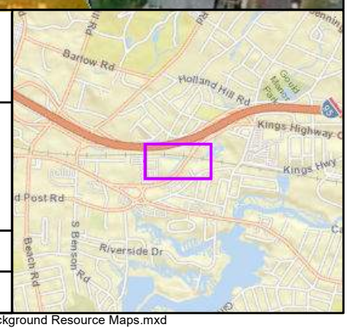

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PEM1/5E

7106

306

307

Legend

Soil Type / Boundary

Shellfish Classification

Prohibited

Natural Diversity Area

Subregional Basins

CAM Zone

Aquifer Protection Area

NWI Mapped Feature

FEMA Zone Type

FLOODWAY

0.2 PCT ANNUAL CHANCE FLOOD HAZARD

1 PCT ANNUAL CHANCE FLOOD HAZARD

Service Layer Credits: Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, (c) OpenStreetMap contributors, and the GIS User Community
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1:1,200
1 inch = 100 feet

50 25 0 50 100 Feet

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Fairfield to Congress 115kV T-Line Project
Fairfield County, CT
Background Resource Map

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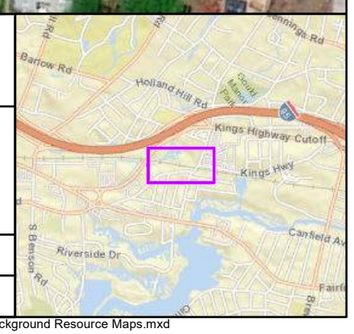

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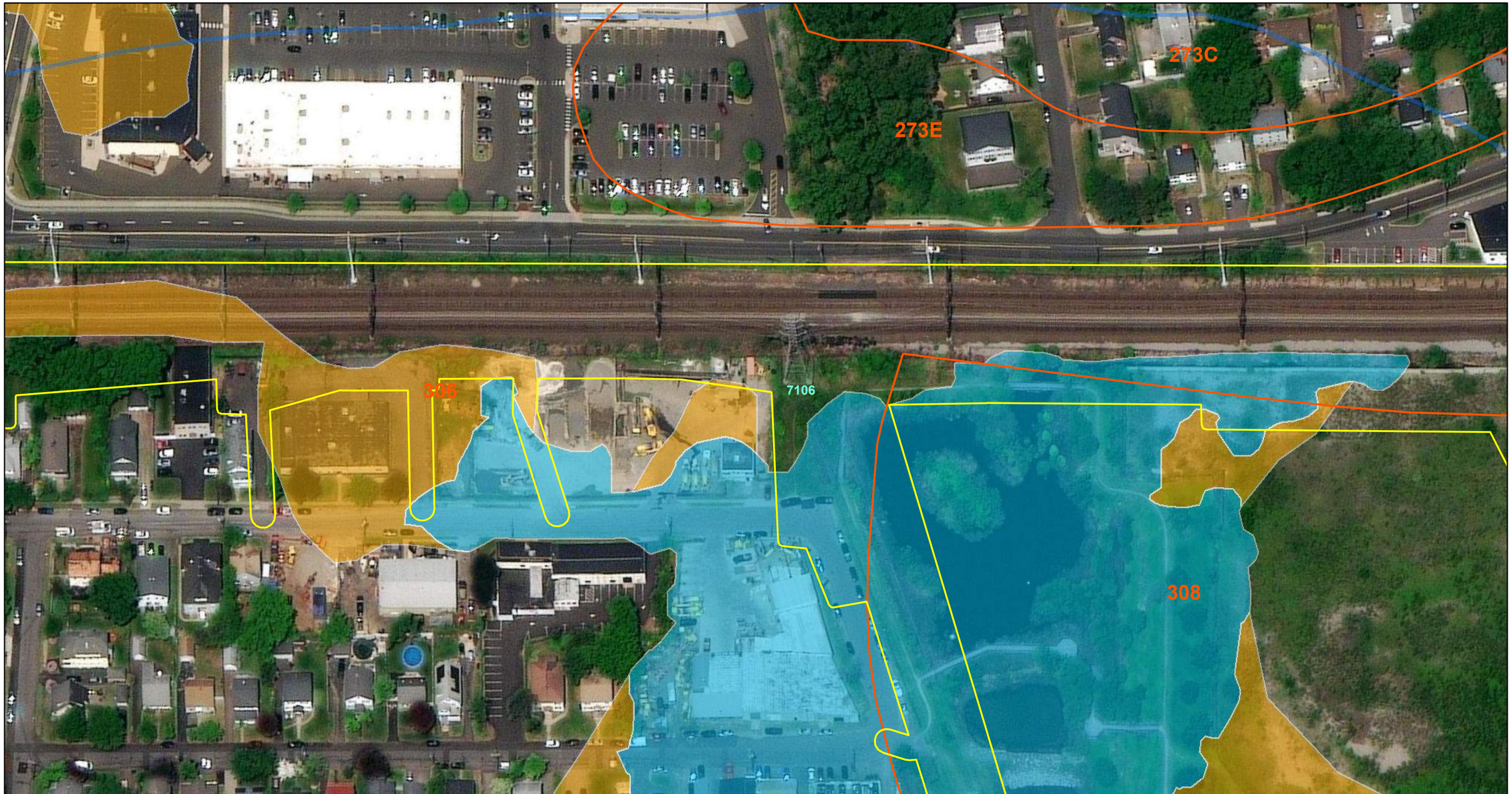

Legend

Soil Type / Boundary

Shellfish Classification

Prohibited

Natural Diversity Area

Subregional Basins

CAM Zone

Aquifer Protection Area

NWI Mapped Feature

FEMA Zone Type

FLOODWAY

0.2 PCT ANNUAL CHANCE FLOOD HAZARD

1 PCT ANNUAL CHANCE FLOOD HAZARD

Service Layer Credits: Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, (c) OpenStreetMap contributors, and the GIS User Community
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1:1,200
1 inch = 100 feet

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Fairfield to Congress 115kV T-Line Project
Fairfield County, CT
Background Resource Map

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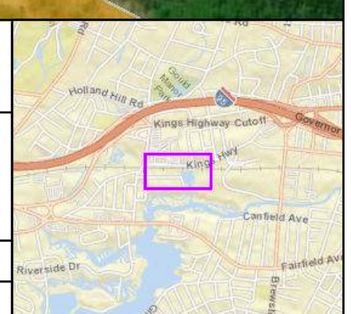

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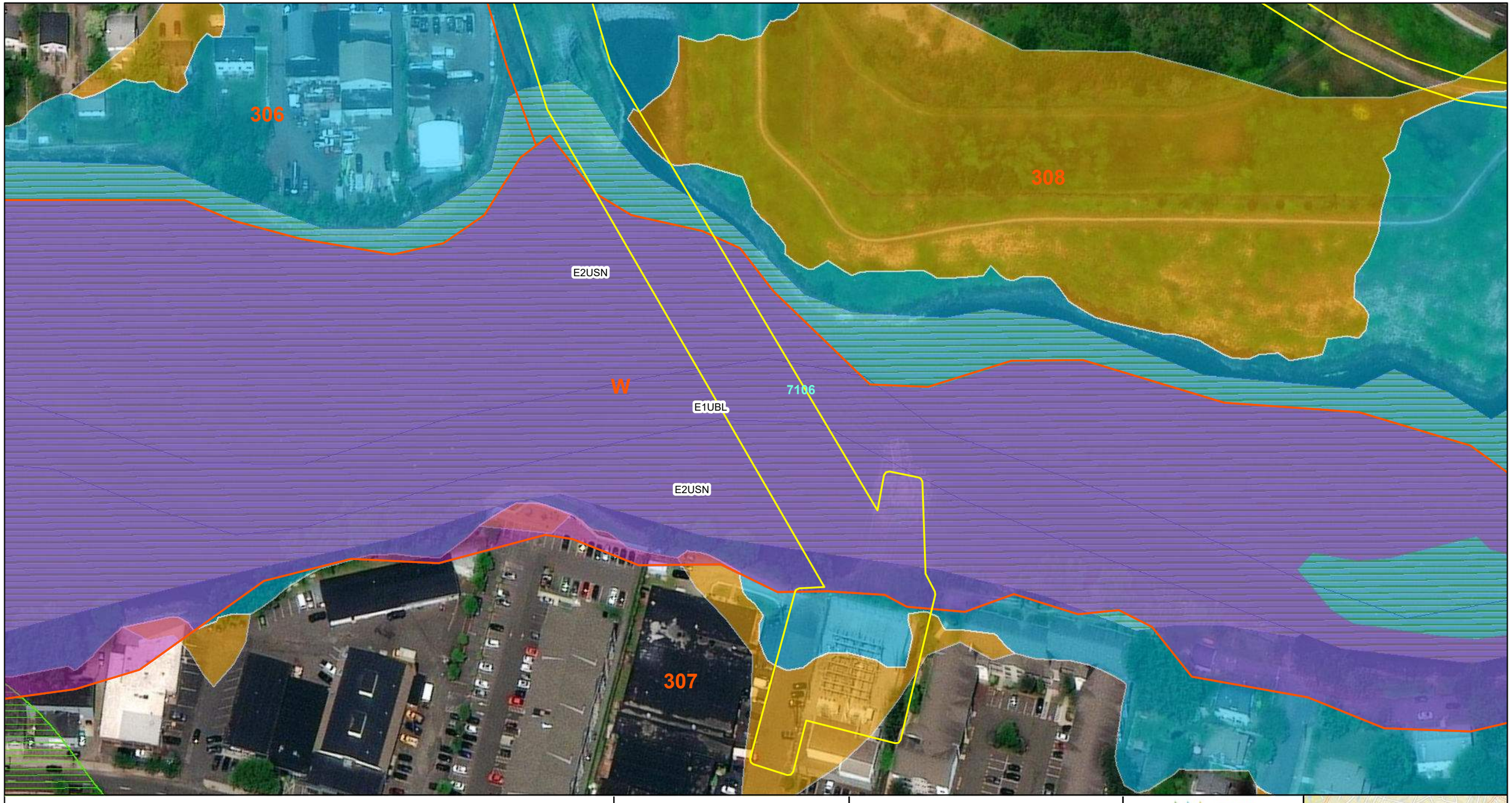

Legend

- Soil Type / Boundary
- Subregional Basins
- CAM Zone
- Aquifer Protection Area
- NWI Mapped Feature

Shellfish Classification

- Prohibited
- Natural Diversity Area

FEMA Zone Type

- FLOODWAY
- 0.2 PCT ANNUAL CHANCE FLOOD HAZARD
- 1 PCT ANNUAL CHANCE FLOOD HAZARD

Service Layer Credits: Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, (c) OpenStreetMap contributors, and the GIS User Community
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1:1,200
1 inch = 100 feet

50 25 0 50 100 Feet

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Fairfield to Congress
115kV T-Line Project
Fairfield County, CT
Background Resource Map

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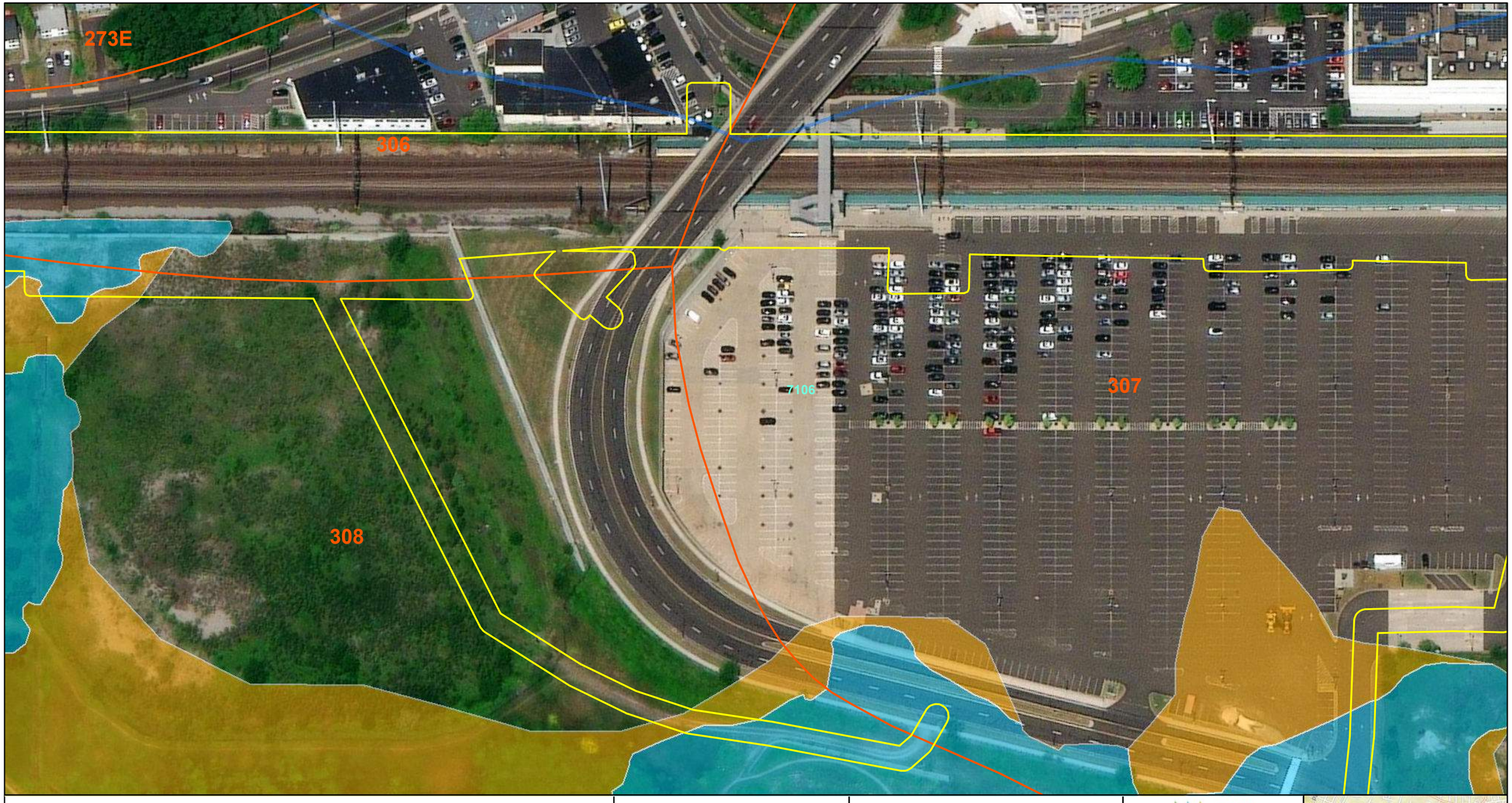

Legend

- Soil Type / Boundary
- Subregional Basins
- CAM Zone
- Aquifer Protection Area
- NWI Mapped Feature

Shellfish Classification

- Prohibited
- Natural Diversity Area

FEMA Zone Type

- FLOODWAY
- 0.2 PCT ANNUAL CHANCE FLOOD HAZARD
- 1 PCT ANNUAL CHANCE FLOOD HAZARD

Service Layer Credits: Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, (c) OpenStreetMap contributors, and the GIS User Community
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1:1,200
1 inch = 100 feet

50 25 0 50 100 Feet

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Fairfield to Congress
115kV T-Line Project
Fairfield County, CT
Background Resource Map

PRJ NUM: 2102261

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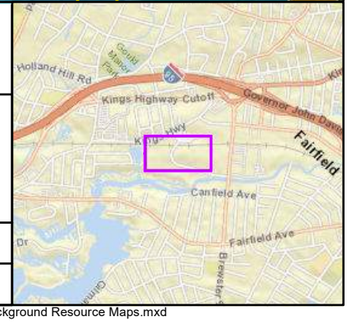

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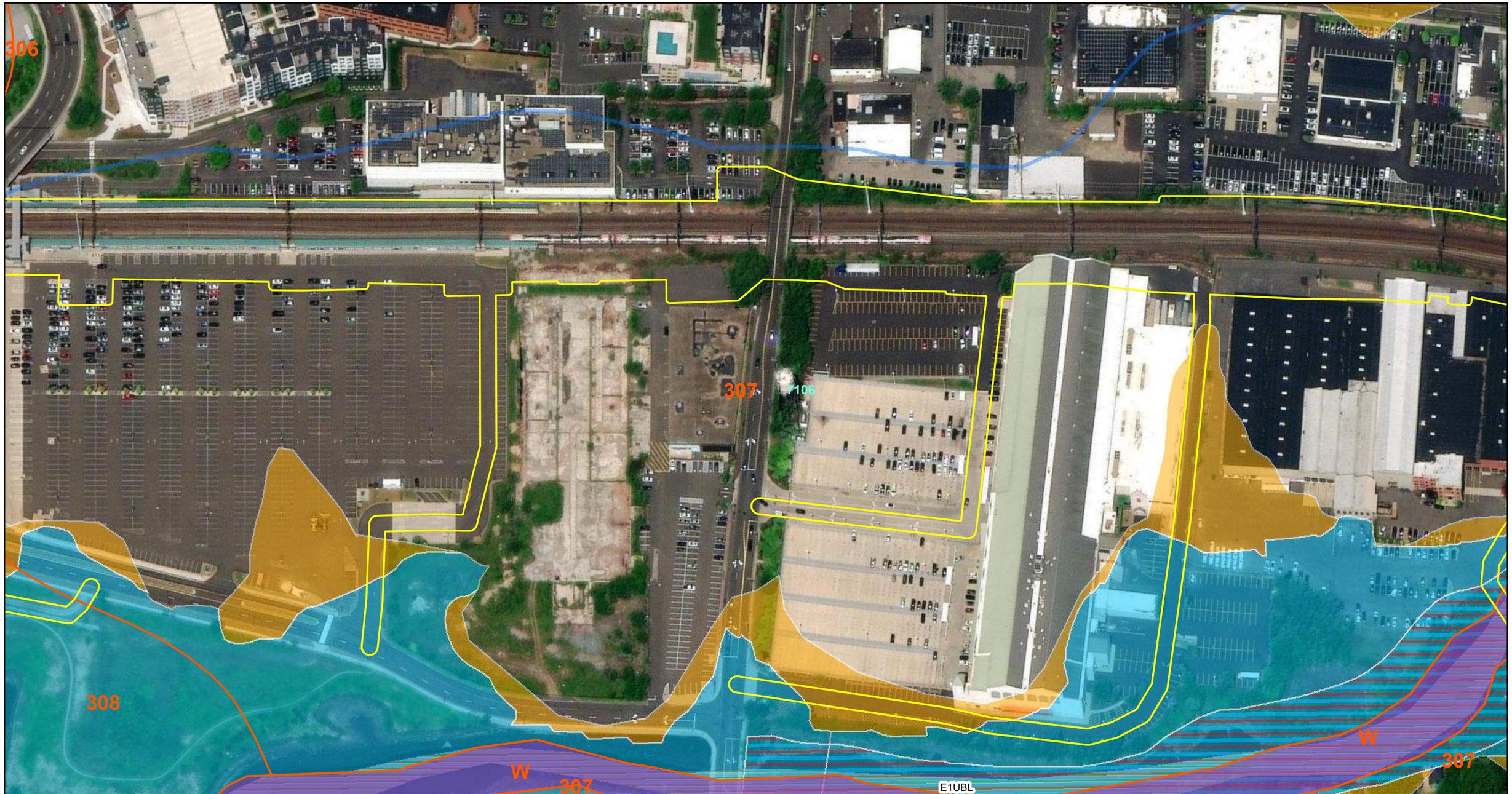

Legend

Soil Type / Boundary

Shellfish Classification

Prohibited

Natural Diversity Area

Subregional Basins

CAM Zone

Aquifer Protection Area

NWI Mapped Feature

FEMA Zone Type

FLOODWAY

0.2 PCT ANNUAL CHANCE FLOOD HAZARD

1 PCT ANNUAL CHANCE FLOOD HAZARD

Service Layer Credits: Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, (c) OpenStreetMap contributors, and the GIS User Community
Source: Esri, Maxar, Earthstar Geographics, and the GIS User Community

1:1,800
1 inch = 150 feet

50 25 0 50 100
Feet

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Fairfield to Congress 115kV T-Line Project
Fairfield County, CT
Background Resource Map

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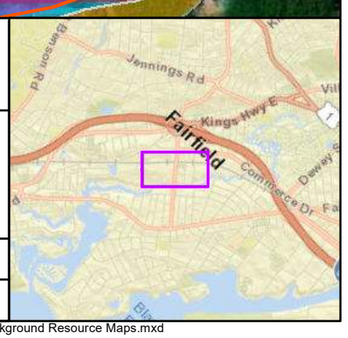

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Legend

Soil Type / Boundary

Shellfish Classification

Prohibited

Natural Diversity Area

Subregional Basins

CAM Zone

Aquifer Protection Area

NWI Mapped Feature

FEMA Zone Type

FLOODWAY

0.2 PCT ANNUAL CHANCE FLOOD HAZARD

1 PCT ANNUAL CHANCE FLOOD HAZARD

Service Layer Credits: Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, (c) OpenStreetMap contributors, and the GIS User Community
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1:1,200
1 inch = 100 feet

50 25 0 50 100 Feet

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Land Surveying

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Fairfield to Congress 115kV T-Line Project Fairfield County, CT Background Resource Map

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Notes:	**PRJ NUM:** 2102261
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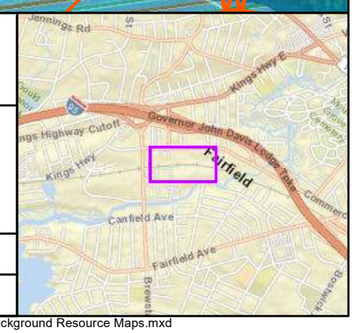

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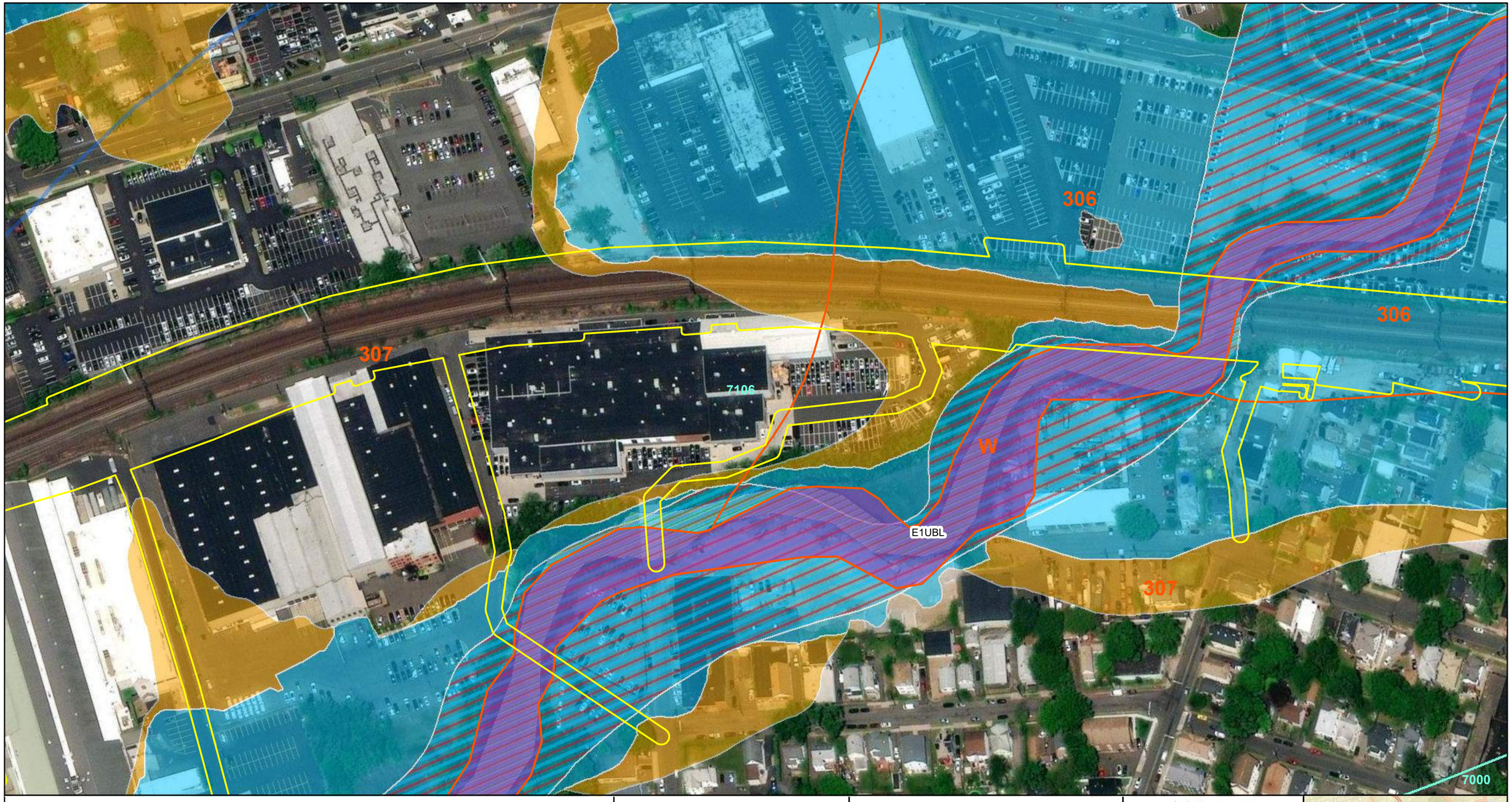

Legend

- Soil Type / Boundary
- Subregional Basins
- CAM Zone
- Aquifer Protection Area
- NWI Mapped Feature

Shellfish Classification

- Prohibited
- Natural Diversity Area

FEMA Zone Type

- FLOODWAY
- 0.2 PCT ANNUAL CHANCE FLOOD HAZARD
- 1 PCT ANNUAL CHANCE FLOOD HAZARD

Service Layer Credits: Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, (c) OpenStreetMap contributors, and the GIS User Community
Source: Esri, Maxar, Earthstar Geographics, and the GIS User Community

1:1,800
1 inch = 150 feet

50 25 0 50 100 Feet

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Fairfield to Congress
115kV T-Line Project
Fairfield County, CT
Background Resource Map

PRJ NUM: 2102261

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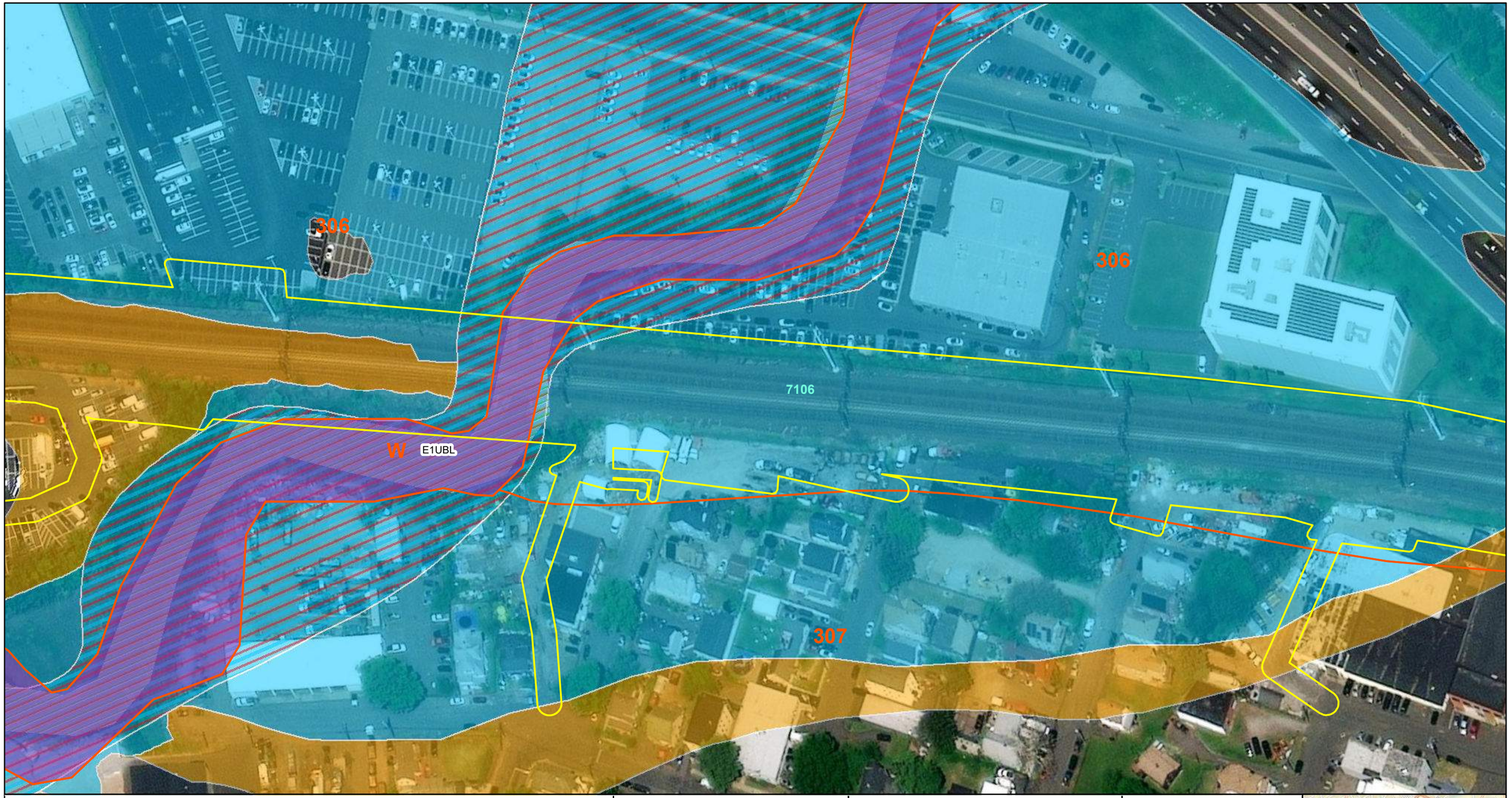

Legend

Soil Type / Boundary

Shellfish Classification

Prohibited

Natural Diversity Area

Subregional Basins

CAM Zone

Aquifer Protection Area

NWI Mapped Feature

FEMA Zone Type

FLOODWAY

0.2 PCT ANNUAL CHANCE FLOOD HAZARD

1 PCT ANNUAL CHANCE FLOOD HAZARD

Service Layer Credits: Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, (c) OpenStreetMap contributors, and the GIS User Community
Source: Esri, Maxar, Earthstar Geographics, and the GIS User Community

1:1,200
1 inch = 100 feet

50 25 0 50 100
Feet

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Fairfield to Congress 115kV T-Line Project Fairfield County, CT Background Resource Map

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Notes:	**PRJ NUM:** 2102261
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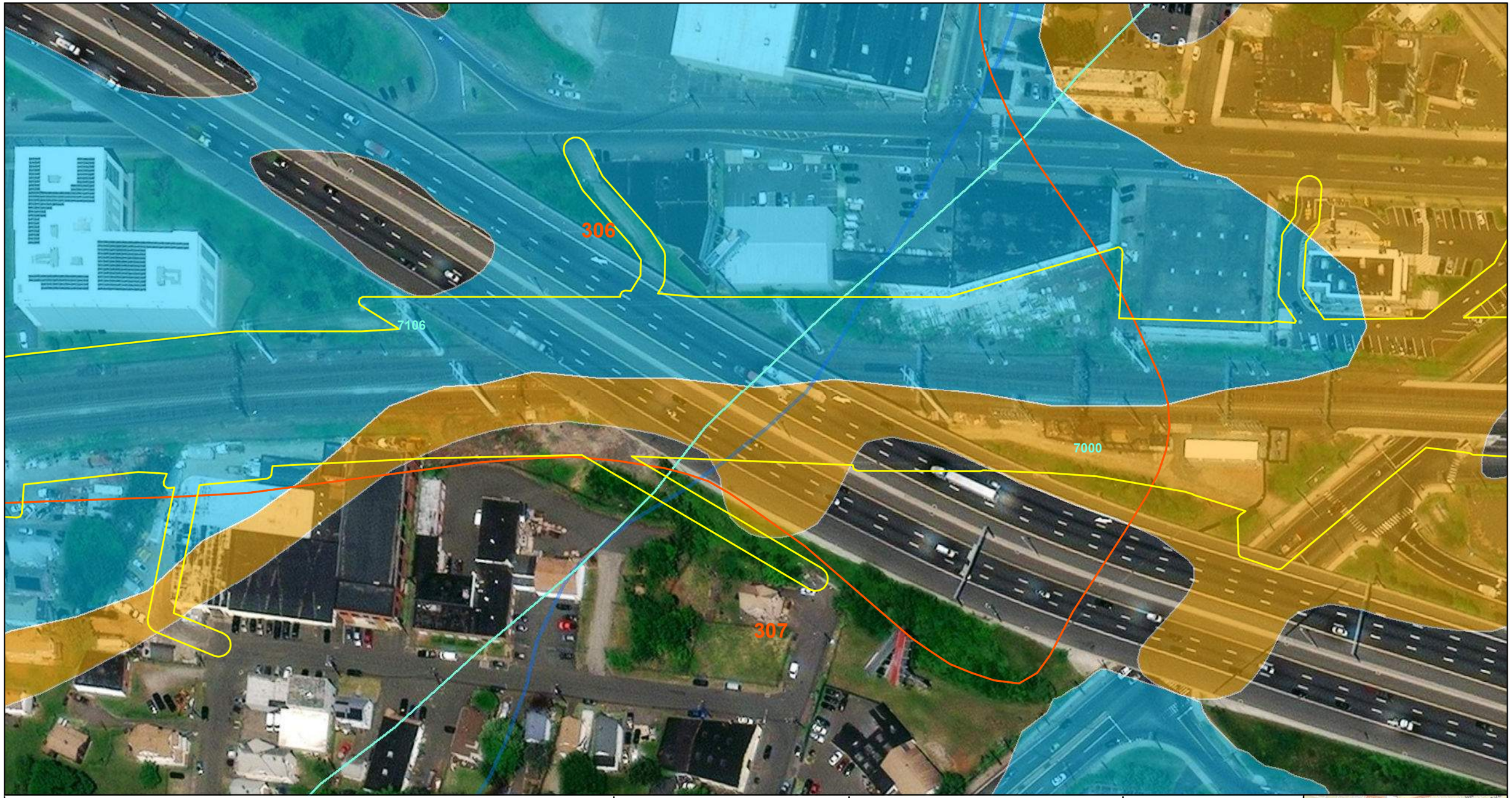

Legend

Soil Type / Boundary

Shellfish Classification

Prohibited

Natural Diversity Area

Subregional Basins

CAM Zone

Aquifer Protection Area

NWI Mapped Feature

FEMA Zone Type

FLOODWAY

0.2 PCT ANNUAL CHANCE FLOOD HAZARD

1 PCT ANNUAL CHANCE FLOOD HAZARD

Service Layer Credits: Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, (c) OpenStreetMap contributors, and the GIS User Community
Source: Esri, Maxar, Earthstar Geographics, and the GIS User Community

1:1,200
1 inch = 100 feet

50 25 0 50 100 Feet

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Land Surveying
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Fairfield to Congress
115kV T-Line Project
Fairfield County, CT
Background Resource Map

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Notes:	**PRJ NUM:** 2102261
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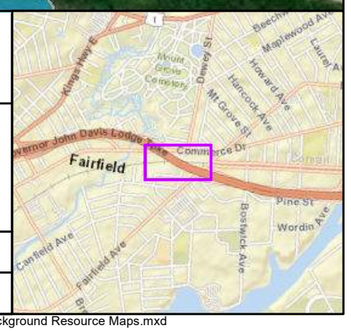

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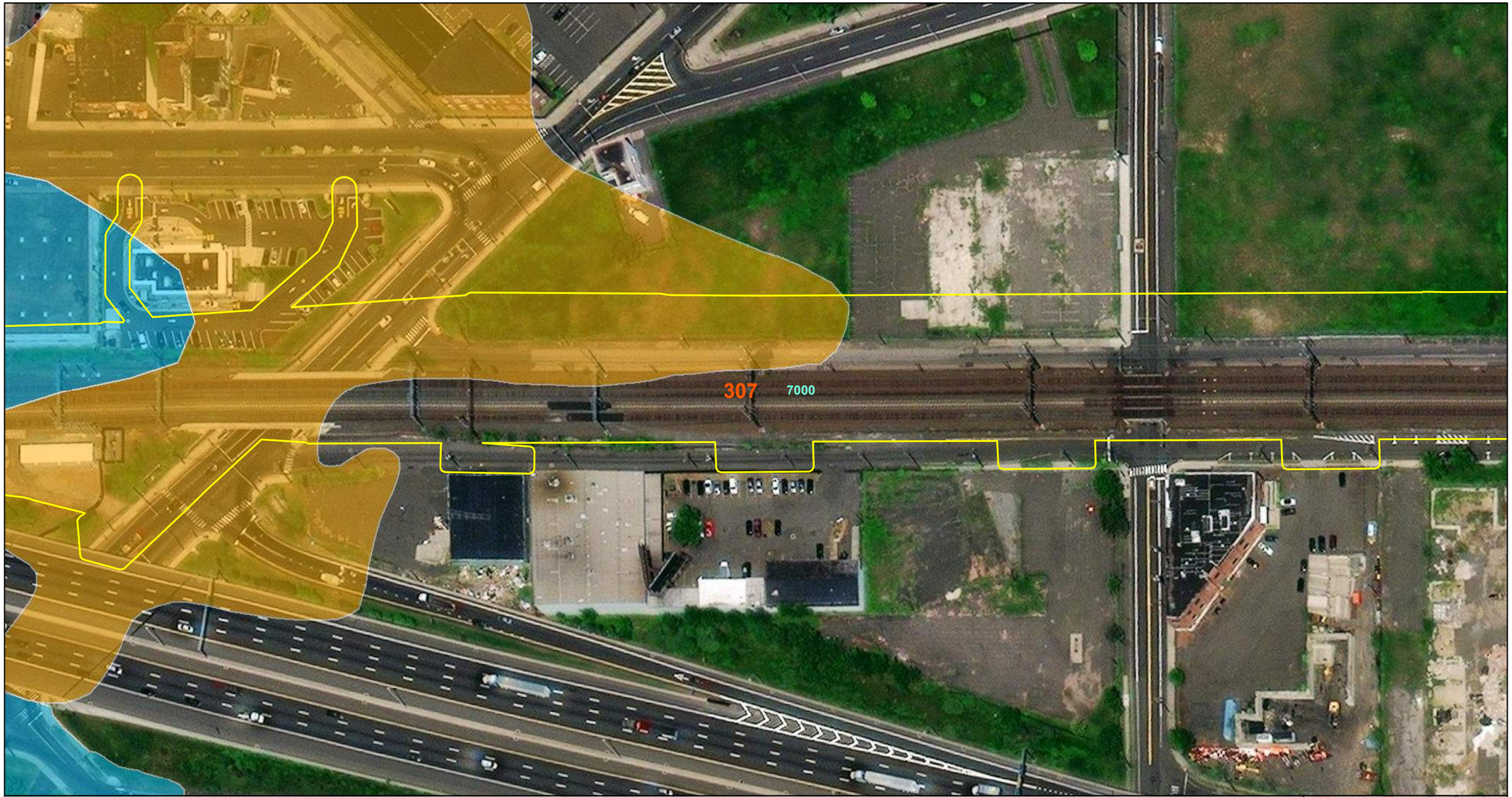

Legend

Soil Type / Boundary

Shellfish Classification

Prohibited

Natural Diversity Area

Subregional Basins

CAM Zone

Aquifer Protection Area

NWI Mapped Feature

FEMA Zone Type

FLOODWAY

0.2 PCT ANNUAL CHANCE FLOOD HAZARD

1 PCT ANNUAL CHANCE FLOOD HAZARD

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1:1,200
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Fairfield to Congress 115kV T-Line Project
Fairfield County, CT
Background Resource Map

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Legend

Soil Type / Boundary

Shellfish Classification

Prohibited

Natural Diversity Area

Subregional Basins

CAM Zone

Aquifer Protection Area

NWI Mapped Feature

FEMA Zone Type

FLOODWAY

0.2 PCT ANNUAL CHANCE FLOOD HAZARD

1 PCT ANNUAL CHANCE FLOOD HAZARD

Service Layer Credits: Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, (c) OpenStreetMap contributors, and the GIS User Community
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1:1,800
1 inch = 150 feet

50 25 0 50 100
Feet

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Fairfield to Congress 115kV T-Line Project Fairfield County, CT Background Resource Map

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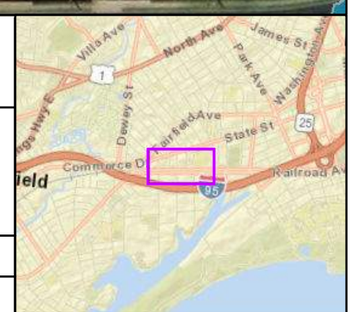

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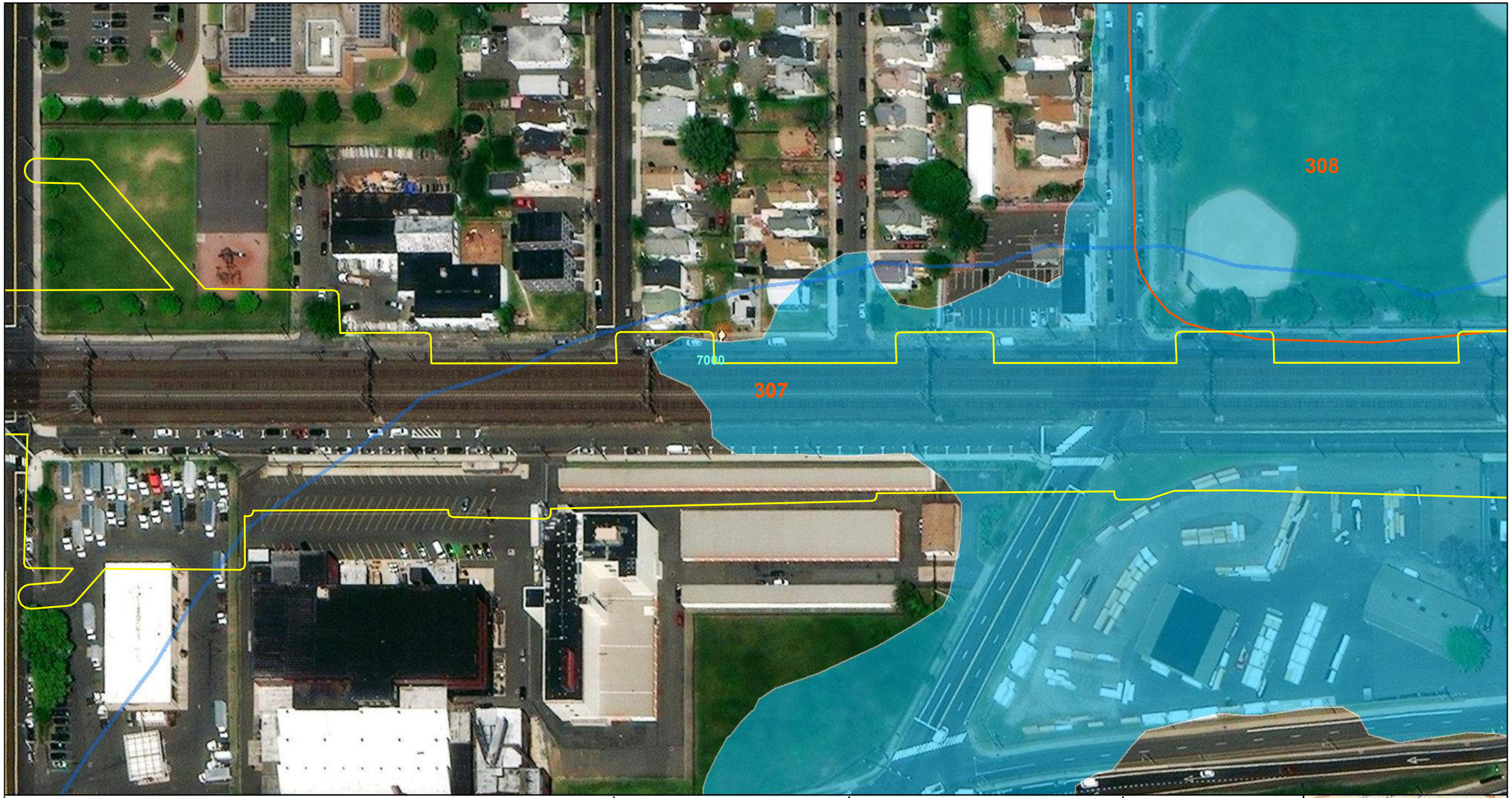

Legend

Soil Type / Boundary

Shellfish Classification

Prohibited

Natural Diversity Area

Subregional Basins

CAM Zone

Aquifer Protection Area

NWI Mapped Feature

FEMA Zone Type

FLOODWAY

0.2 PCT ANNUAL CHANCE FLOOD HAZARD

1 PCT ANNUAL CHANCE FLOOD HAZARD

Service Layer Credits: Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, (c) OpenStreetMap contributors, and the GIS User Community
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APPENDIX B SHEET NUMBER: 29 OF 39



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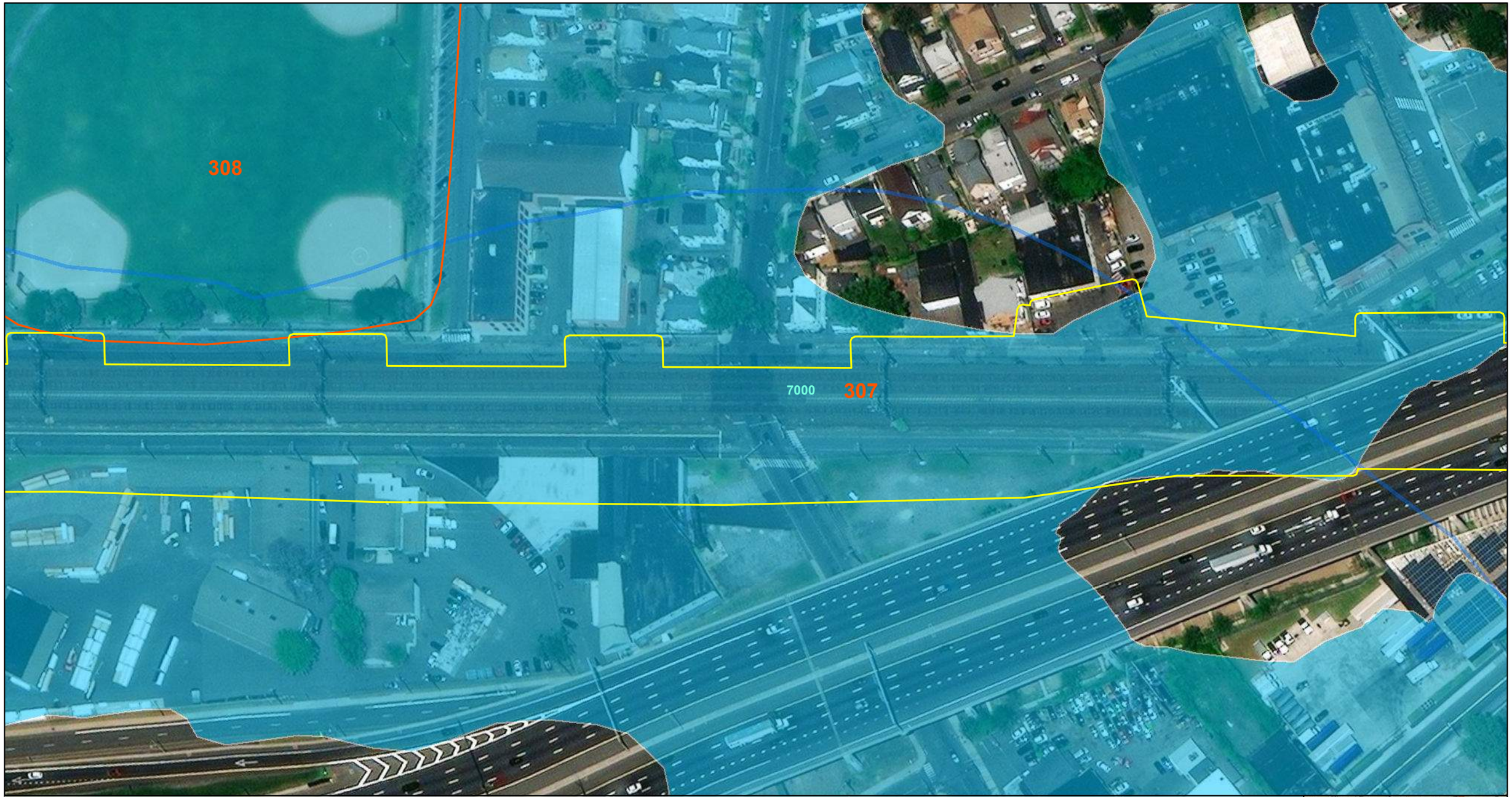

Legend

Soil Type / Boundary

Shellfish Classification

Prohibited

Natural Diversity Area

Subregional Basins

CAM Zone

Aquifer Protection Area

NWI Mapped Feature

FEMA Zone Type

FLOODWAY

0.2 PCT ANNUAL CHANCE FLOOD HAZARD

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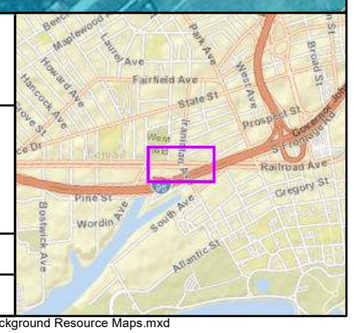

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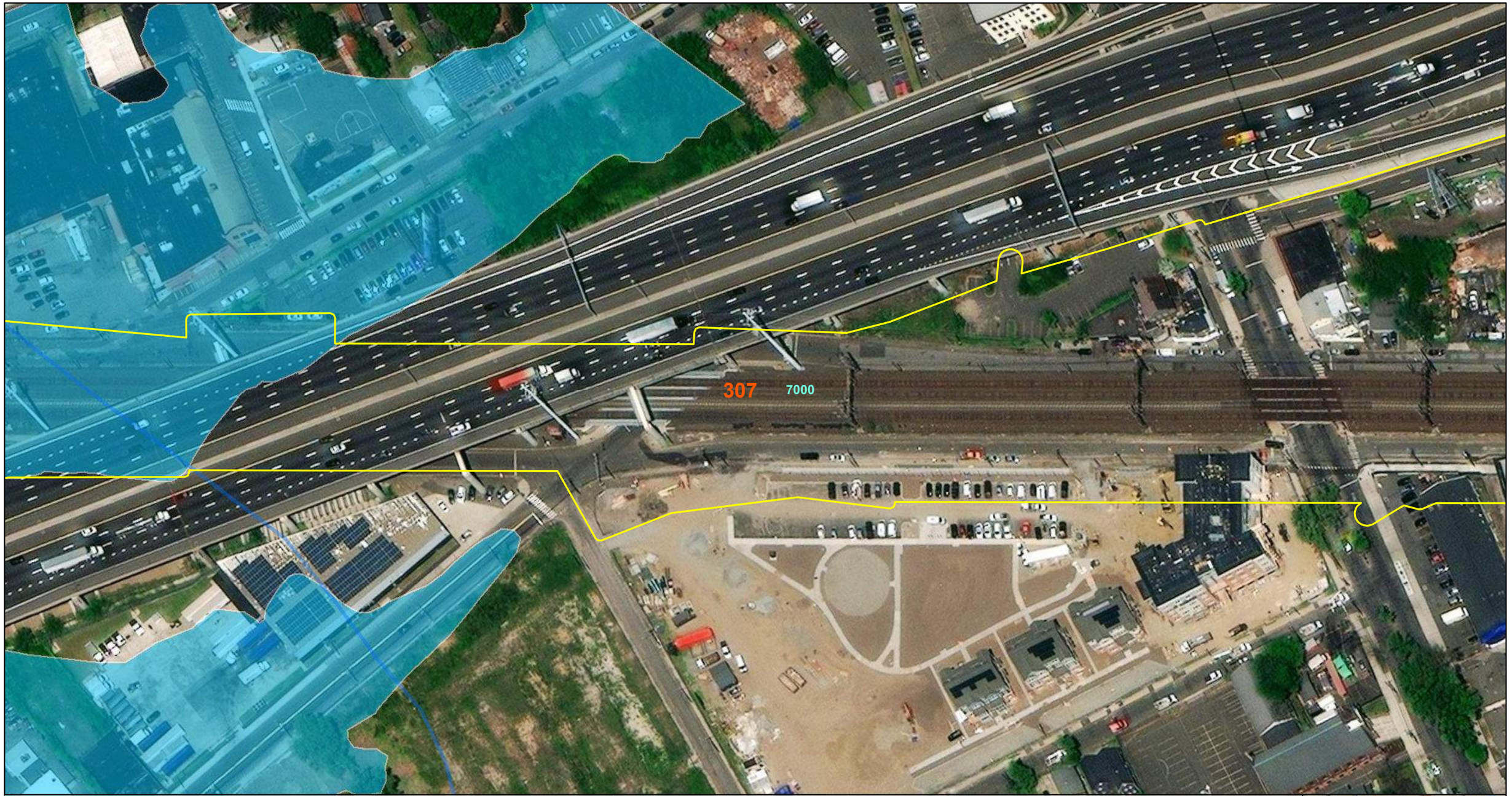

Legend

Soil Type / Boundary

Shellfish Classification

Prohibited

Natural Diversity Area

Subregional Basins

CAM Zone

Aquifer Protection Area

NWI Mapped Feature

FEMA Zone Type

FLOODWAY

0.2 PCT ANNUAL CHANCE FLOOD HAZARD

1 PCT ANNUAL CHANCE FLOOD HAZARD

Service Layer Credits: Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, (c) OpenStreetMap contributors, and the GIS User Community
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Fairfield to Congress
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Fairfield County, CT
Background Resource Map

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Legend

Soil Type / Boundary

Shellfish Classification

Prohibited

Natural Diversity Area

Subregional Basins

CAM Zone

Aquifer Protection Area

NWI Mapped Feature

FEMA Zone Type

FLOODWAY

0.2 PCT ANNUAL CHANCE FLOOD HAZARD

1 PCT ANNUAL CHANCE FLOOD HAZARD

Service Layer Credits: Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, (c) OpenStreetMap contributors, and the GIS User Community
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Legend

- Soil Type / Boundary
- Subregional Basins
- CAM Zone
- Aquifer Protection Area
- NWI Mapped Feature

Shellfish Classification

- Prohibited
- Natural Diversity Area

FEMA Zone Type

- FLOODWAY
- 0.2 PCT ANNUAL CHANCE FLOOD HAZARD
- 1 PCT ANNUAL CHANCE FLOOD HAZARD

Service Layer Credits: Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, (c) OpenStreetMap contributors, and the GIS User Community
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Legend

- Soil Type / Boundary
- Subregional Basins
- CAM Zone
- Aquifer Protection Area
- NWI Mapped Feature

Shellfish Classification

- Prohibited
- Natural Diversity Area

FEMA Zone Type

- FLOODWAY
- 0.2 PCT ANNUAL CHANCE FLOOD HAZARD
- 1 PCT ANNUAL CHANCE FLOOD HAZARD

Service Layer Credits: Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, (c) OpenStreetMap contributors, and the GIS User Community
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115kV T-Line Project
Fairfield County, CT
Background Resource Map

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Legend

- Soil Type / Boundary
- Subregional Basins
- CAM Zone
- Aquifer Protection Area
- NWI Mapped Feature

Shellfish Classification

- Prohibited
- Natural Diversity Area

FEMA Zone Type

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- 0.2 PCT ANNUAL CHANCE FLOOD HAZARD
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1 inch = 100 feet

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115kV T-Line Project
Fairfield County, CT
Background Resource Map

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Notes:	**PRJ NUM:** 2102261
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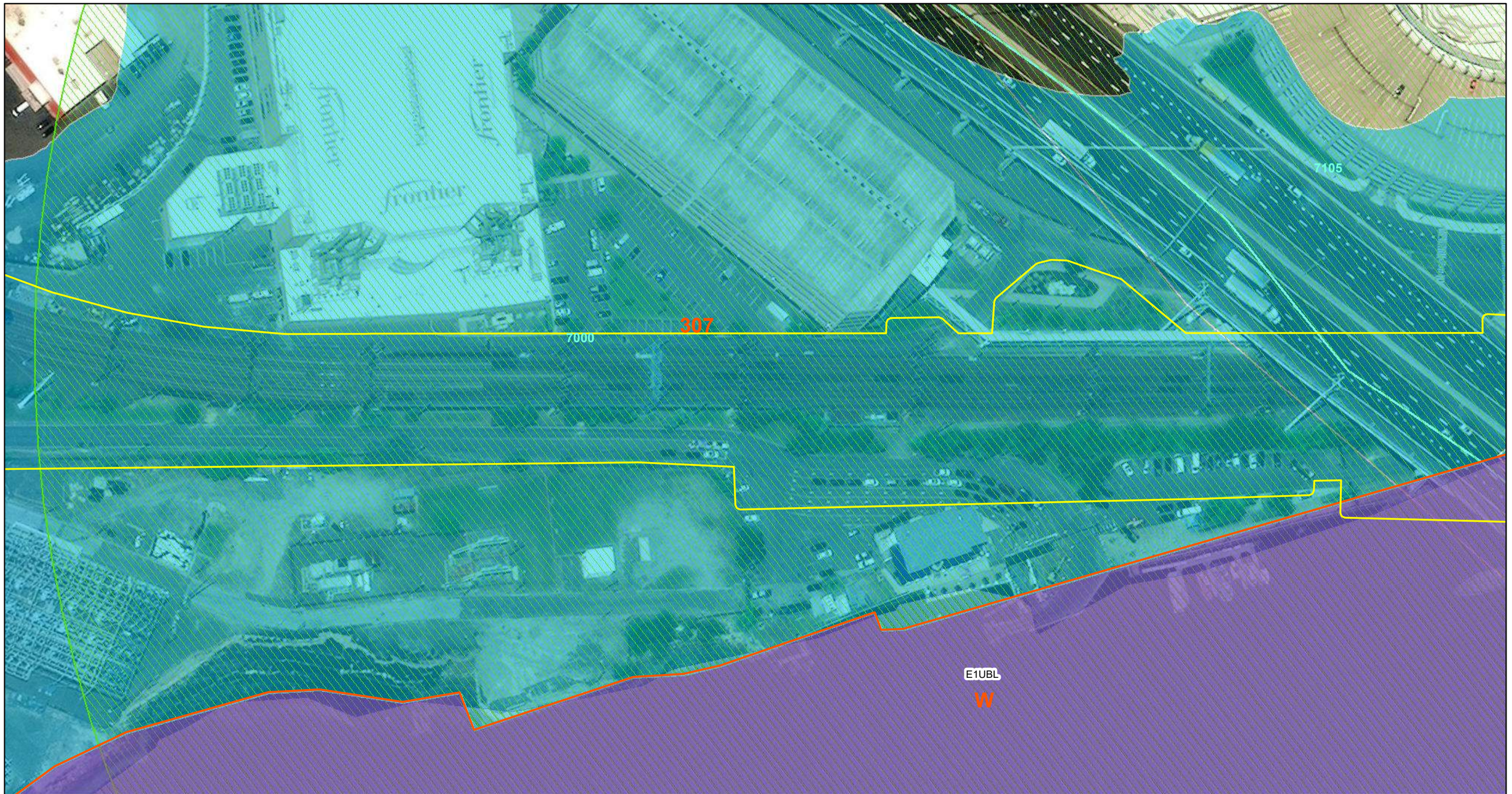

Legend

- Soil Type / Boundary
- Subregional Basins
- CAM Zone
- Aquifer Protection Area
- NWI Mapped Feature

Shellfish Classification

- Prohibited
- Natural Diversity Area

FEMA Zone Type

- FLOODWAY
- 0.2 PCT ANNUAL CHANCE FLOOD HAZARD
- 1 PCT ANNUAL CHANCE FLOOD HAZARD

Service Layer Credits: Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, (c) OpenStreetMap contributors, and the GIS User Community
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1:1,200
1 inch = 100 feet

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Fairfield to Congress 115kV T-Line Project
Fairfield County, CT
Background Resource Map

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Notes:	**PRJ NUM:** 2102261
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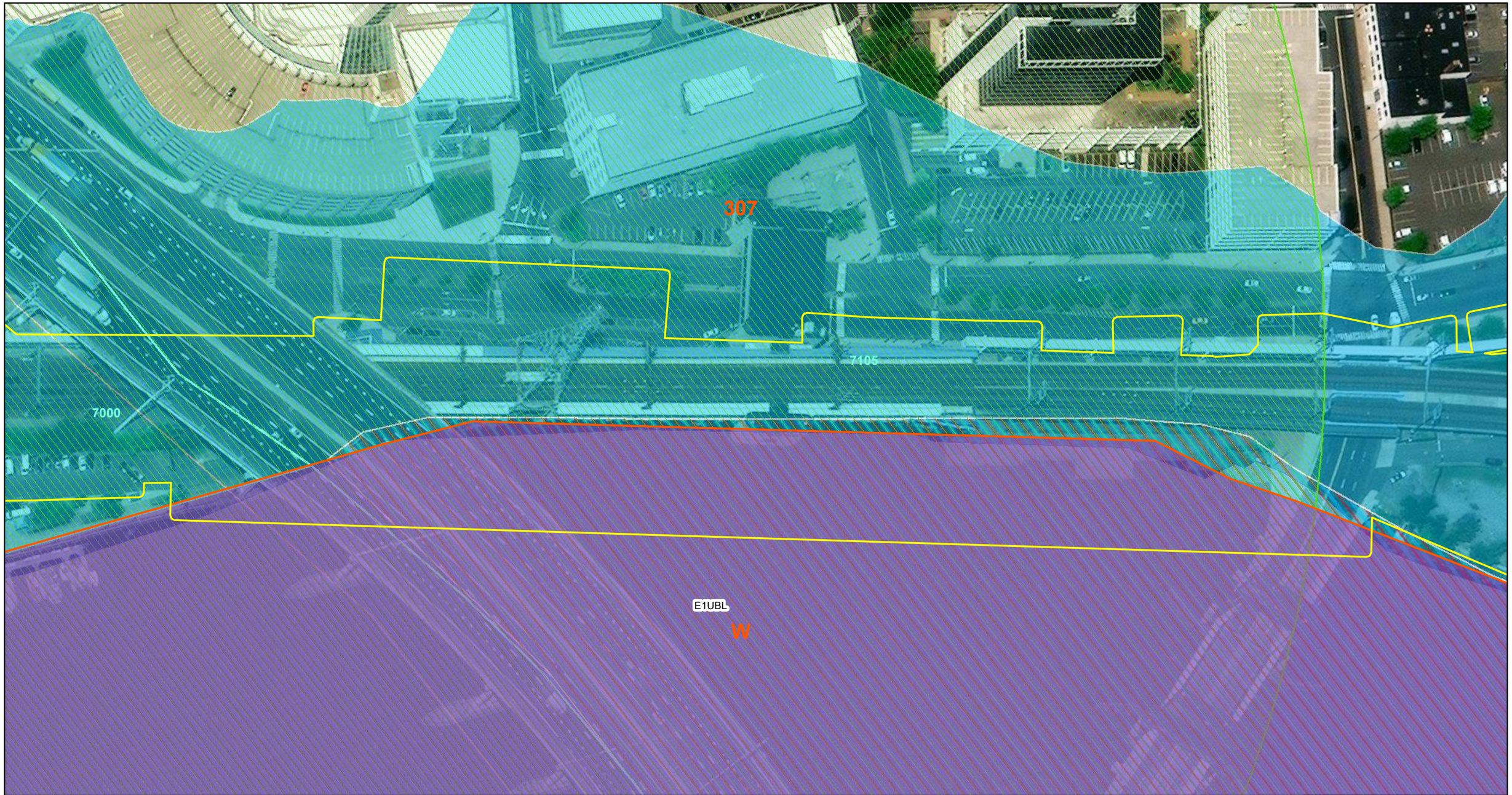

Legend

Soil Type / Boundary

Shellfish Classification

Prohibited

Natural Diversity Area

Subregional Basins

CAM Zone

Aquifer Protection Area

NWI Mapped Feature

FEMA Zone Type

FLOODWAY

0.2 PCT ANNUAL CHANCE FLOOD HAZARD

1 PCT ANNUAL CHANCE FLOOD HAZARD

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1:1,200
1 inch = 100 feet

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Feet

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Fairfield to Congress
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Fairfield County, CT
Background Resource Map

PRJ NUM: 2102261

APPENDIX B SHEET NUMBER: 37 OF 39



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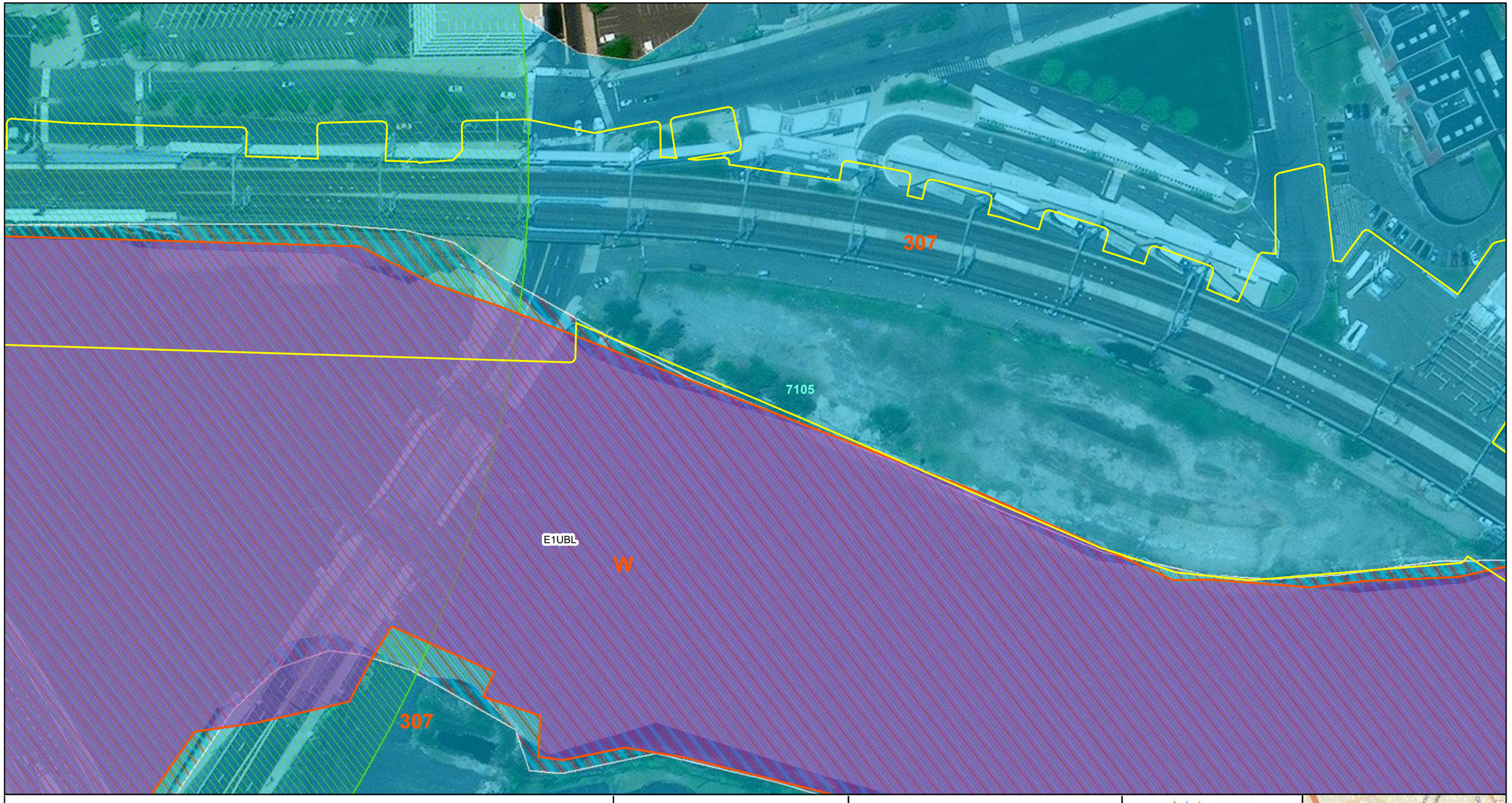

Legend

- Soil Type / Boundary
- Subregional Basins
- CAM Zone
- Aquifer Protection Area
- NWI Mapped Feature

Shellfish Classification

- Prohibited
- Natural Diversity Area

FEMA Zone Type

- FLOODWAY
- 0.2 PCT ANNUAL CHANCE FLOOD HAZARD
- 1 PCT ANNUAL CHANCE FLOOD HAZARD

Service Layer Credits: Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, (c) OpenStreetMap contributors, and the GIS User Community
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Fairfield to Congress 115kV T-Line Project
Fairfield County, CT
Background Resource Map

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Version: Version 4	**DATE:** 10/7/2022
Notes:	**PRJ NUM:** 2102261
	APPENDIX B SHEET NUMBER: 38 OF 39



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Legend

- Soil Type / Boundary
- Subregional Basins
- CAM Zone
- Aquifer Protection Area
- NWI Mapped Feature

Shellfish Classification

- Prohibited
- Natural Diversity Area

FEMA Zone Type

- FLOODWAY
- 0.2 PCT ANNUAL CHANCE FLOOD HAZARD
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Fairfield to Congress 115kV T-Line Project
Fairfield County, CT
Background Resource Map

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Version: Version 4	**DATE:** 10/7/2022
Notes:	**PRJ NUM:** 2102261
	APPENDIX B SHEET NUMBER: 39 OF 39



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APPENDIX: C Water Resources Delineation Mapping

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Stream 1
(Sasco Creek,
Tidal)

Tidal Wetland A

SP 1

SP 2

Fairfield-Congress
Project Start Location

Tidal Wetland A

Legend

Field Delineated Stream

Field Delineated Wetland

Continuous Feature

Service Layer Credits: Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, (c) OpenStreetMap contributors, and the GIS User Community
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Feet

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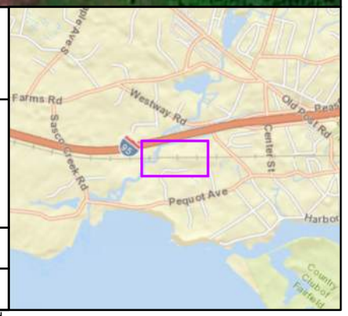
Fairfield to Congress 115kV T-Line Project Fairfield County, CT Water Resources Delineation Map

PRJ NUM: 2102261

APPENDIX C SHEET NUMBER: 1 OF 39



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Stream 2

SP 3

Wetland B

SP 4

Legend

Field Delineated Stream

Field Delineated Wetland

Continuous Feature

Service Layer Credits: Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, (c) OpenStreetMap contributors, and the GIS User Community
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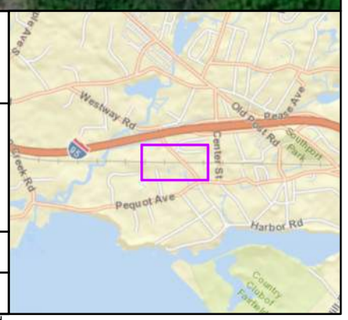
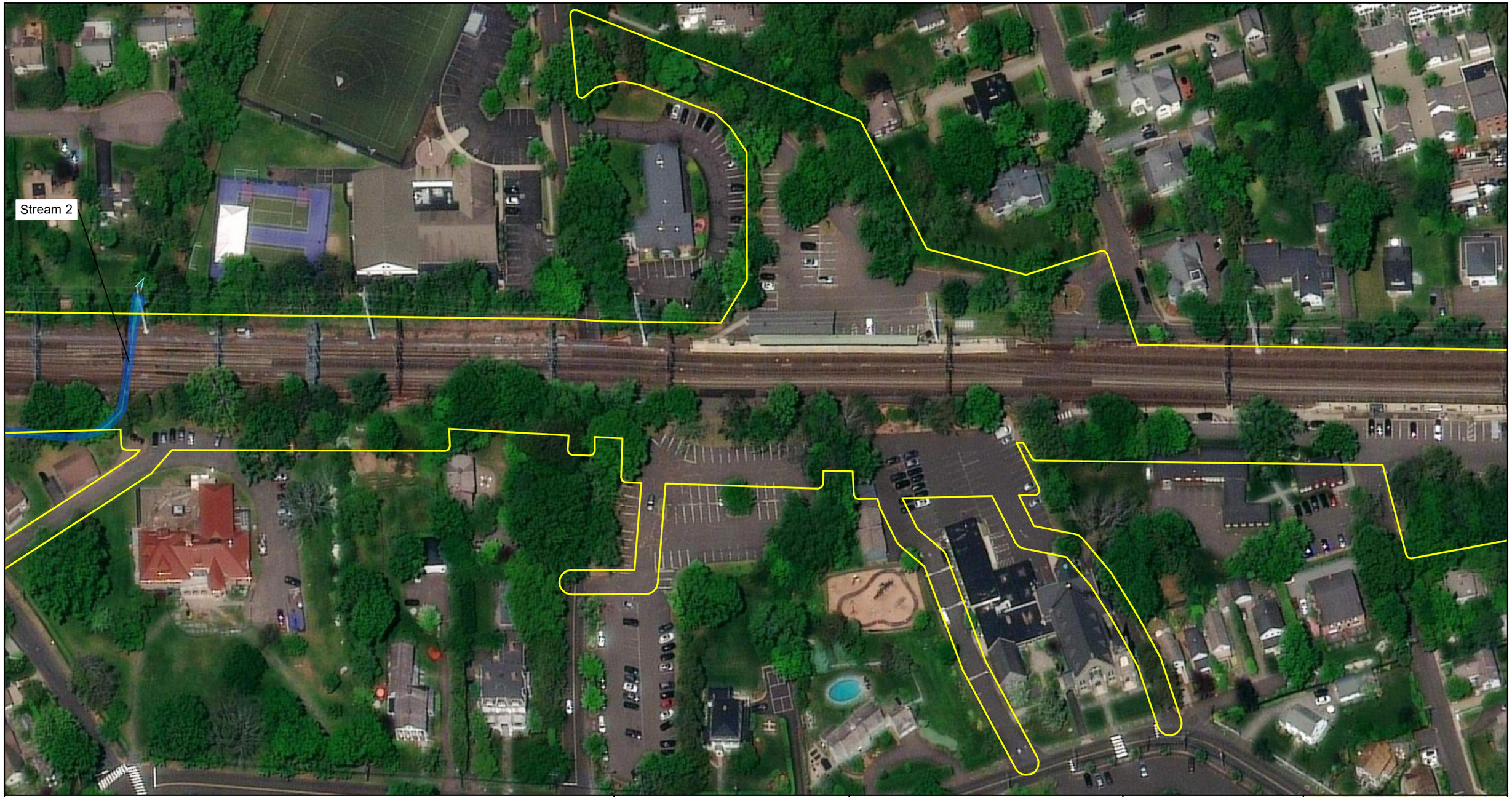
Fairfield to Congress 115kV T-Line Project
Fairfield County, CT
Water Resources Delineation Map

PRJ NUM: 2102261

APPENDIX C SHEET NUMBER: 2 OF 39



Document Path: G:\JOBS21\22\2102261\GIS\MXD\Appendix C. Wetland Delineation Map.mxd



Legend

Field Delineated Stream

Field Delineated Wetland

Continuous Feature

Service Layer Credits: Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, (c) OpenStreetMap contributors, and the GIS User Community
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Fairfield County, CT
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PRJ NUM: 2102261

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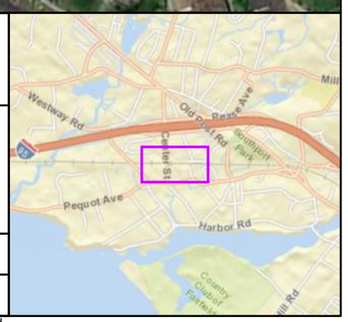

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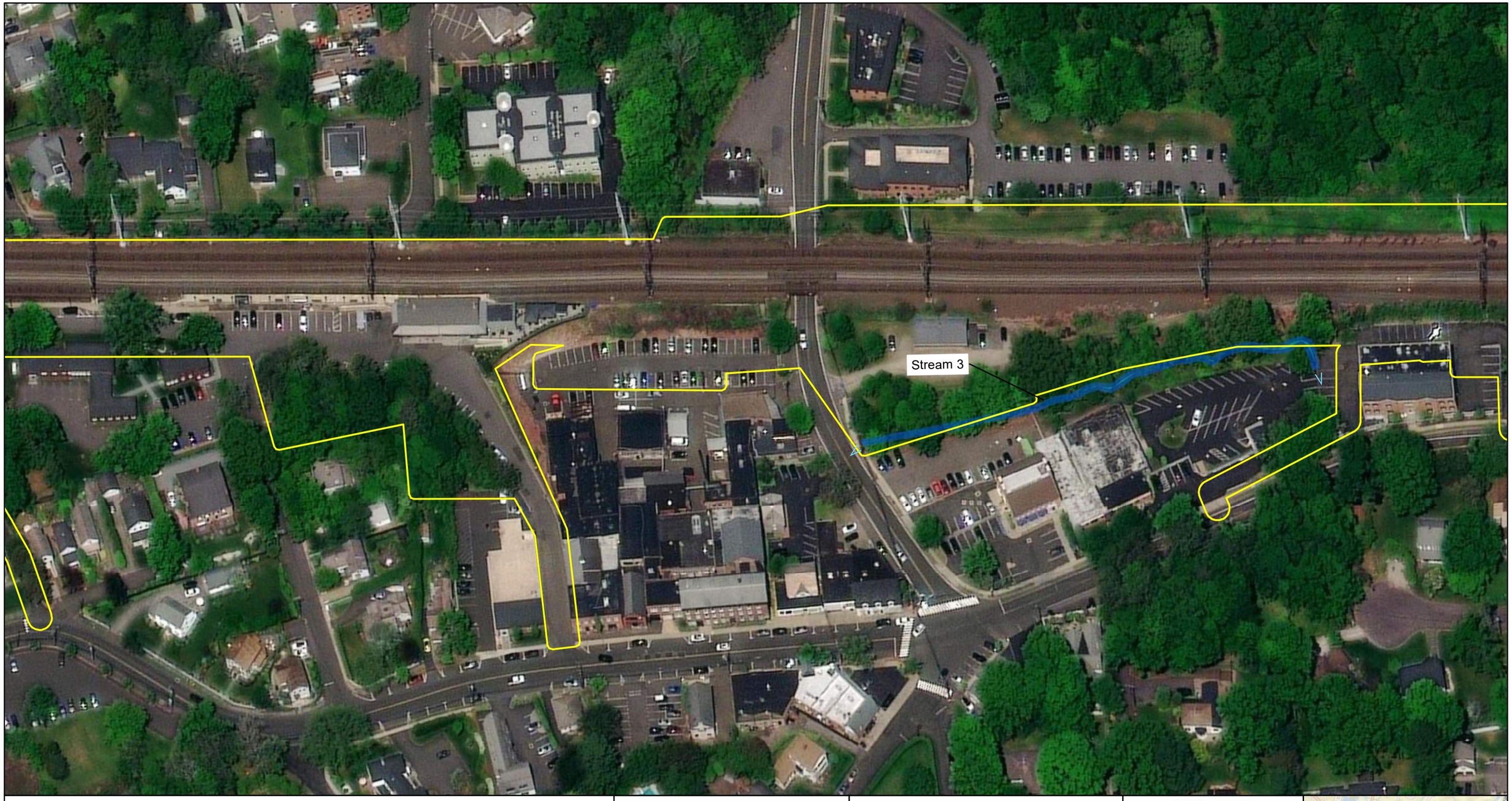

Legend

Field Delineated Stream

Field Delineated Wetland

Continuous Feature

Service Layer Credits: Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, (c) OpenStreetMap contributors, and the GIS User Community
Source: Esri, Maxar, Earthstar Geographics, and the GIS User Community

1:1,200
1 inch = 100 feet

50 25 0 50 100 Feet

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Fairfield to Congress 115kV T-Line Project
Fairfield County, CT
Water Resources Delineation Map

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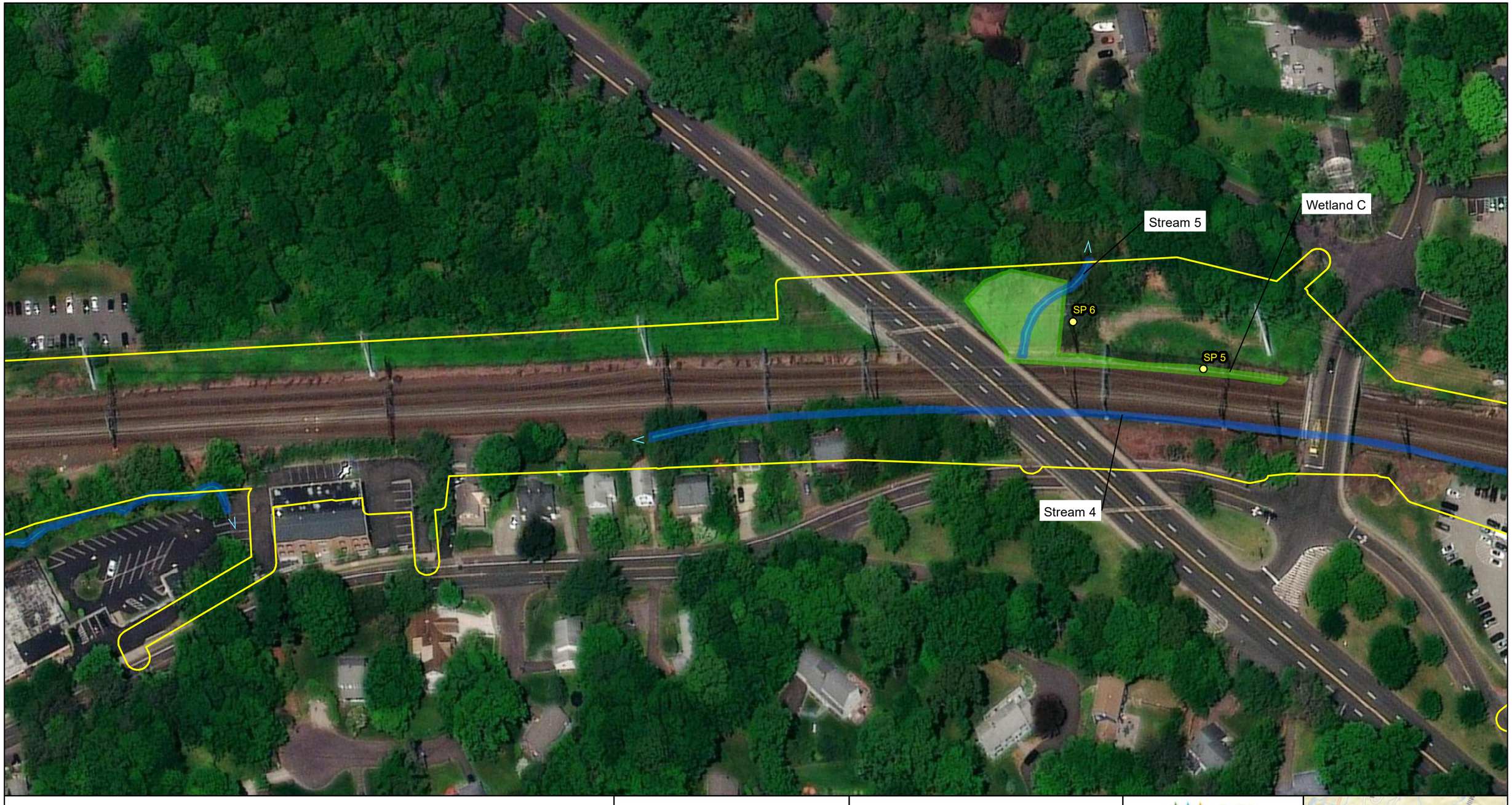

Legend

Field Delineated Stream

Field Delineated Wetland

Continuous Feature

Service Layer Credits: Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, (c) OpenStreetMap contributors, and the GIS User Community
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Fairfield County, CT
Water Resources Delineation Map

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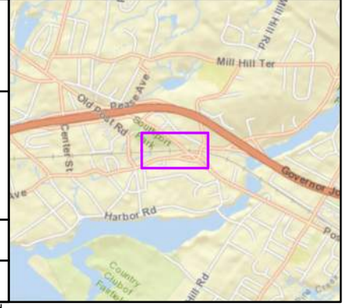

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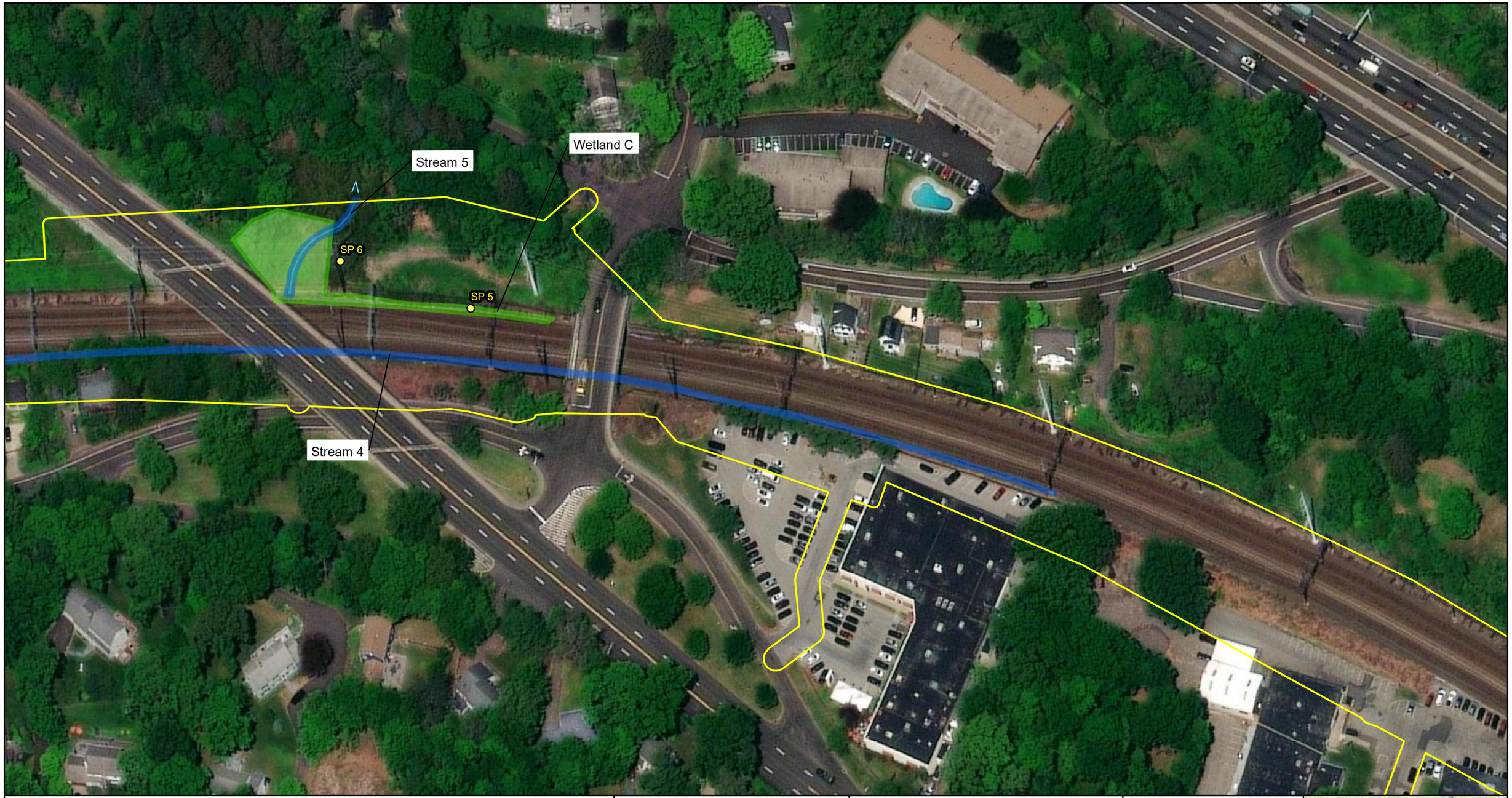

Legend

Field Delineated Stream

Field Delineated Wetland

Continuous Feature

Service Layer Credits: Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, (c) OpenStreetMap contributors, and the GIS User Community
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Fairfield County, CT
Water Resources Delineation Map

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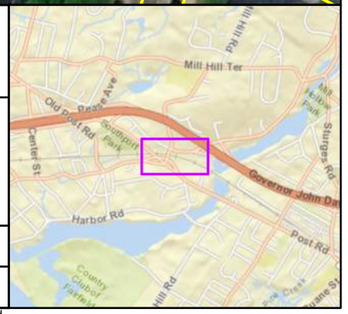

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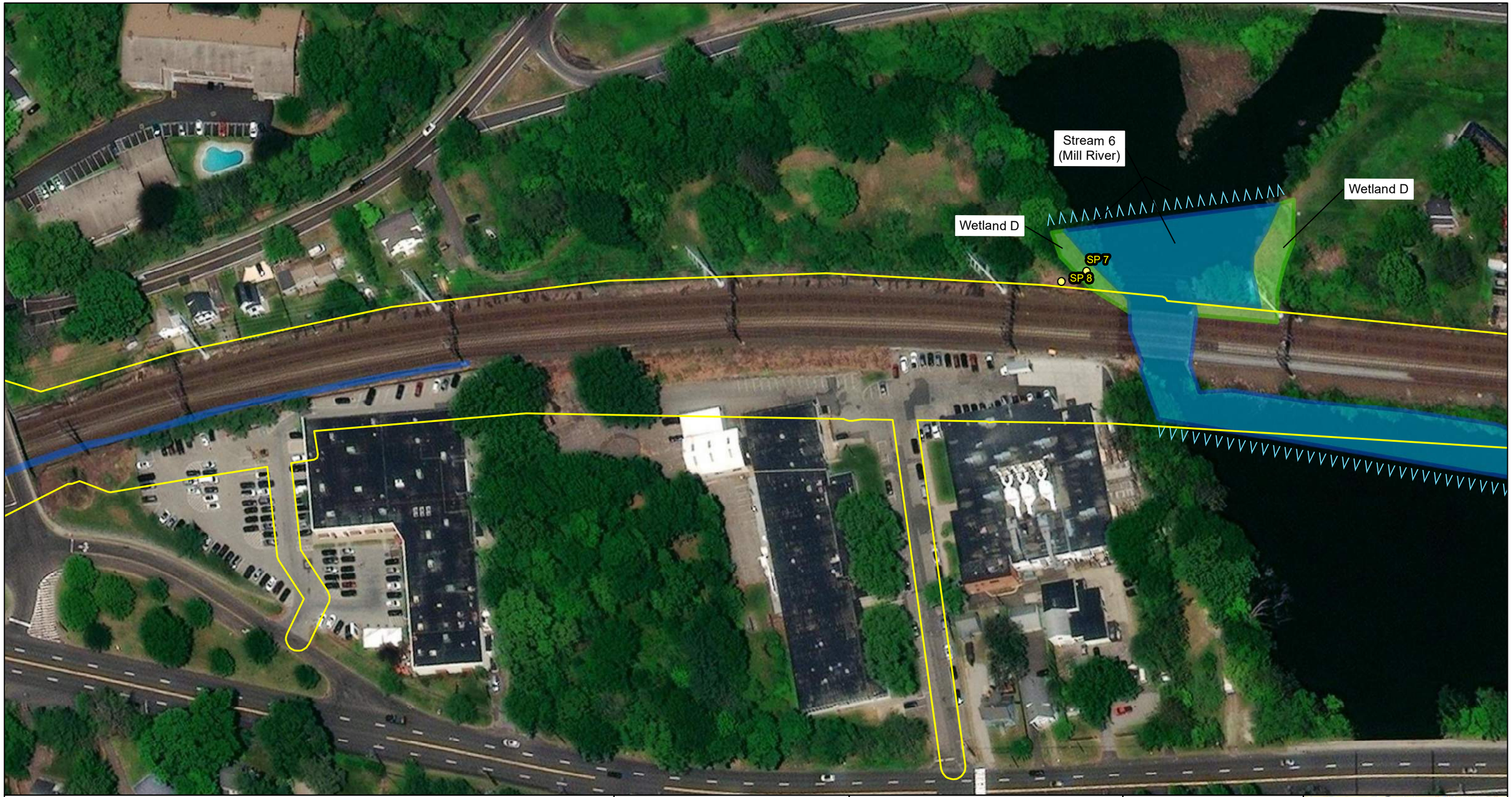

Legend

Field Delineated Stream

Field Delineated Wetland

Continuous Feature

Service Layer Credits: Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, (c) OpenStreetMap contributors, and the GIS User Community
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Fairfield County, CT
Water Resources Delineation Map

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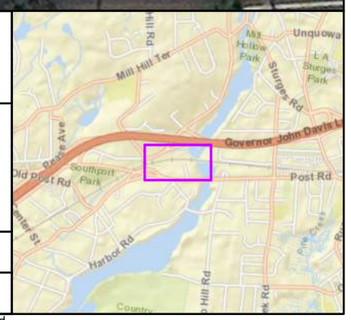

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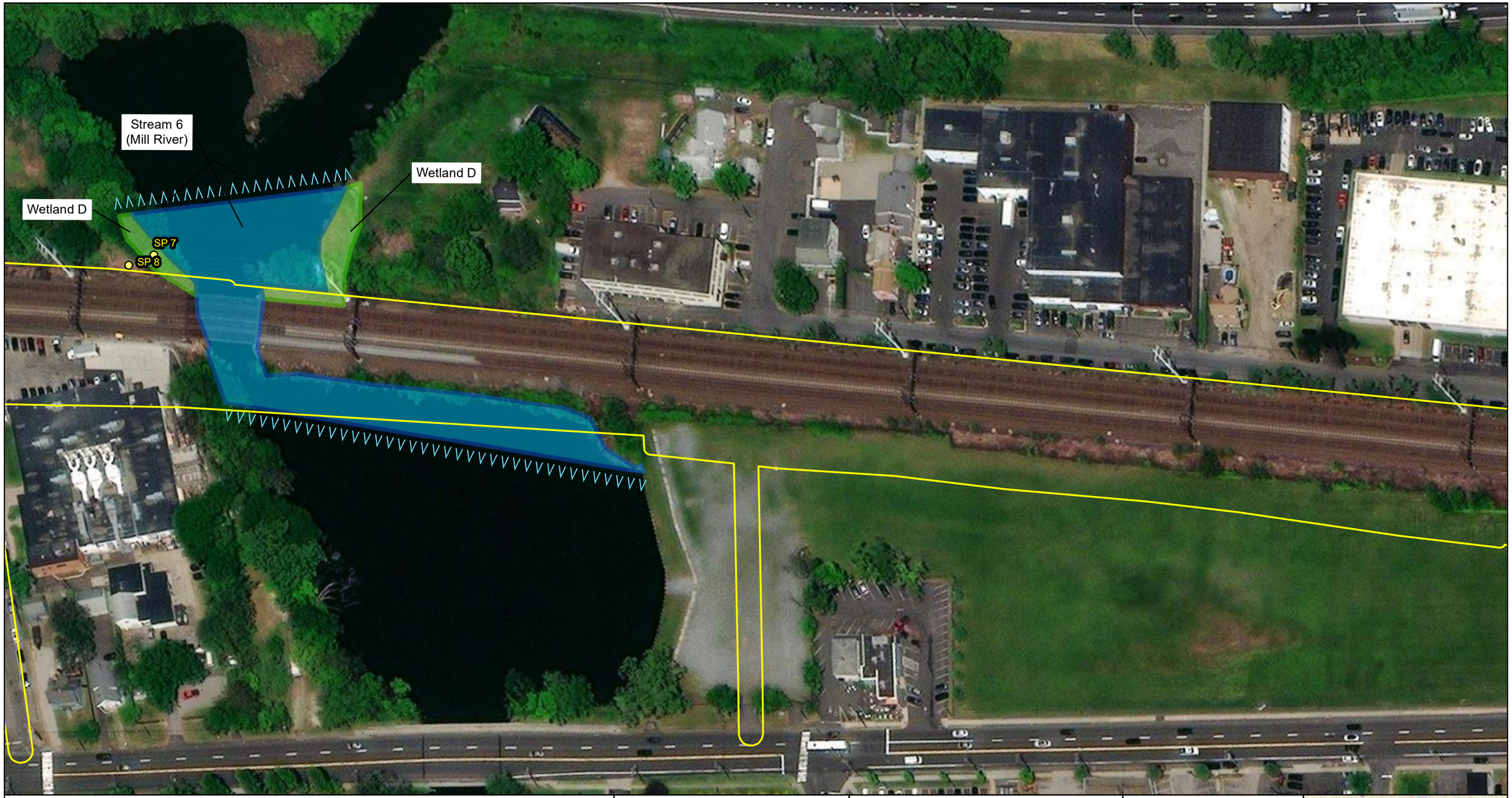

Legend

Field Delineated Stream

Field Delineated Wetland

Continuous Feature

Service Layer Credits: Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, (c) OpenStreetMap contributors, and the GIS User Community
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Fairfield County, CT
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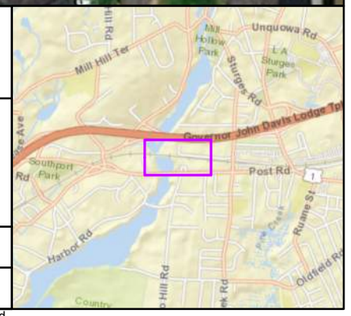

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Legend

Field Delineated Stream

Field Delineated Wetland

Continuous Feature

Service Layer Credits: Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, (c) OpenStreetMap contributors, and the GIS User Community
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Legend

Field Delineated Stream

Field Delineated Wetland

Continuous Feature

Service Layer Credits: Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, (c) OpenStreetMap contributors, and the GIS User Community
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1:1,200
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Fairfield County, CT
Water Resources Delineation Map

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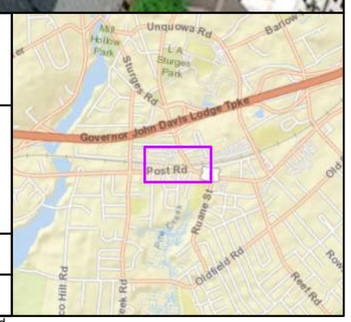

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Legend

Field Delineated Stream

Field Delineated Wetland

Continuous Feature

Service Layer Credits: Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, (c) OpenStreetMap contributors, and the GIS User Community
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Fairfield to Congress 115kV T-Line Project
Fairfield County, CT
Water Resources Delineation Map

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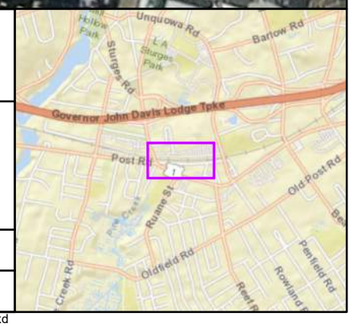

Document Path: G:\JOBS21\22\2102261\GIS\MXD\Appendix C. Wetland Delineation Map.mxd

Legend

Field Delineated Stream

Field Delineated Wetland

Continuous Feature

Service Layer Credits: Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, (c) OpenStreetMap contributors, and the GIS User Community
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1:1,200
1 inch = 100 feet

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Fairfield to Congress 115kV T-Line Project
Fairfield County, CT
Water Resources Delineation Map

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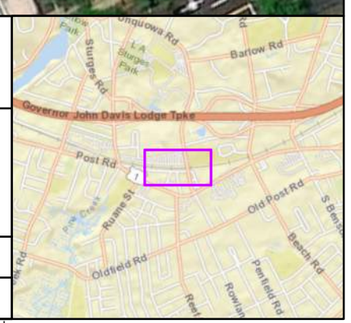

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Legend

Field Delineated Stream

Field Delineated Wetland

Continuous Feature

Service Layer Credits: Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, (c) OpenStreetMap contributors, and the GIS User Community
Source: Esri, Maxar, Earthstar Geographics, and the GIS User Community

1:1,200
1 inch = 100 feet

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Feet

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Fairfield to Congress 115kV T-Line Project
Fairfield County, CT
Water Resources Delineation Map

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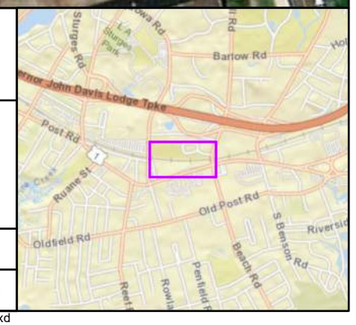

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Legend

Field Delineated Stream

Field Delineated Wetland

Continuous Feature

Service Layer Credits: Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, (c) OpenStreetMap contributors, and the GIS User Community
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1:1,200
1 inch = 100 feet

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Fairfield to Congress 115kV T-Line Project
Fairfield County, CT
Water Resources Delineation Map

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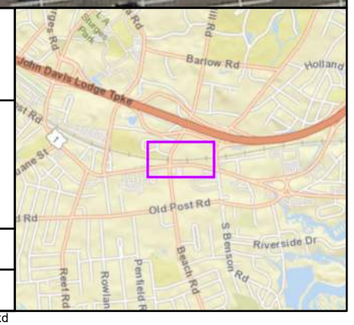

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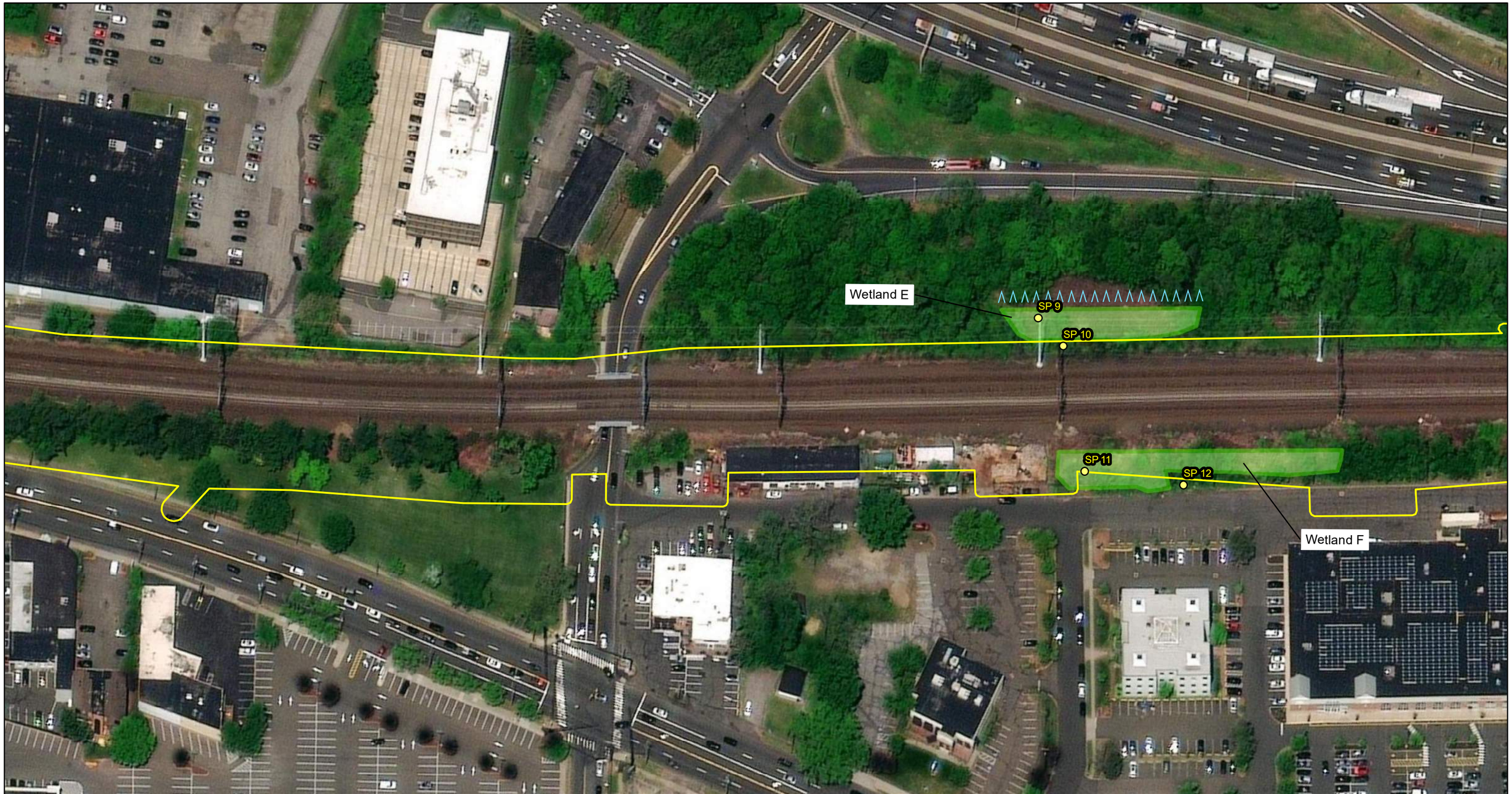

Legend

Field Delineated Stream

Field Delineated Wetland

Continuous Feature

Service Layer Credits: Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, (c) OpenStreetMap contributors, and the GIS User Community
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1:1,200
1 inch = 100 feet

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Fairfield to Congress 115kV T-Line Project
Fairfield County, CT
Water Resources Delineation Map

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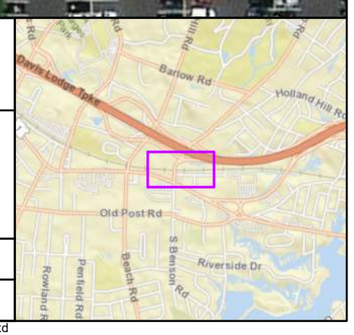

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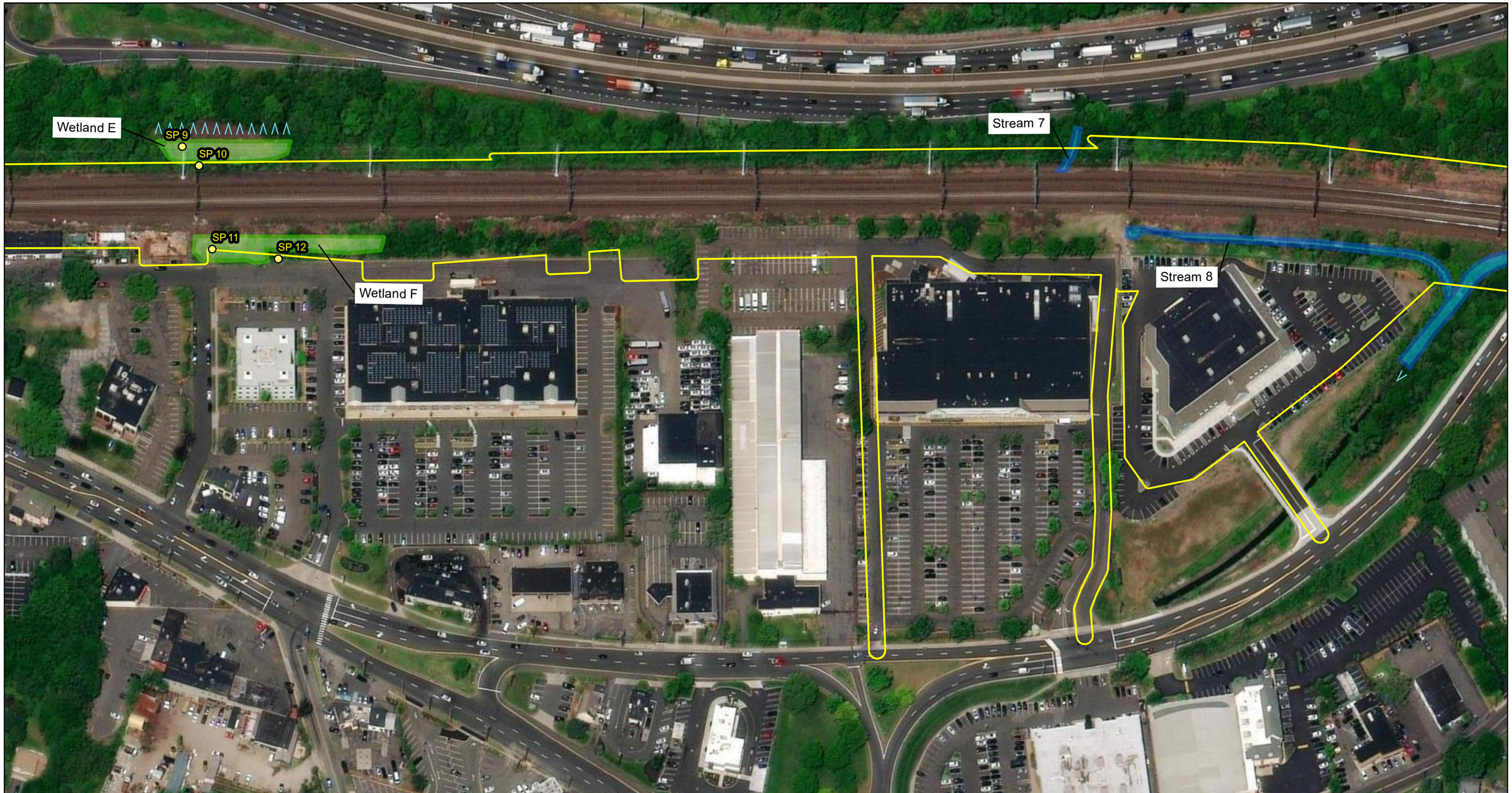

Legend

Field Delineated Stream

Field Delineated Wetland

Continuous Feature

Service Layer Credits: Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, (c) OpenStreetMap contributors, and the GIS User Community
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1:1,800
1 inch = 150 feet

50 25 0 50 100
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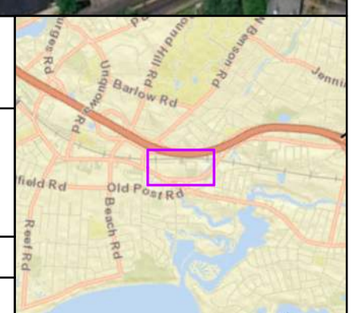

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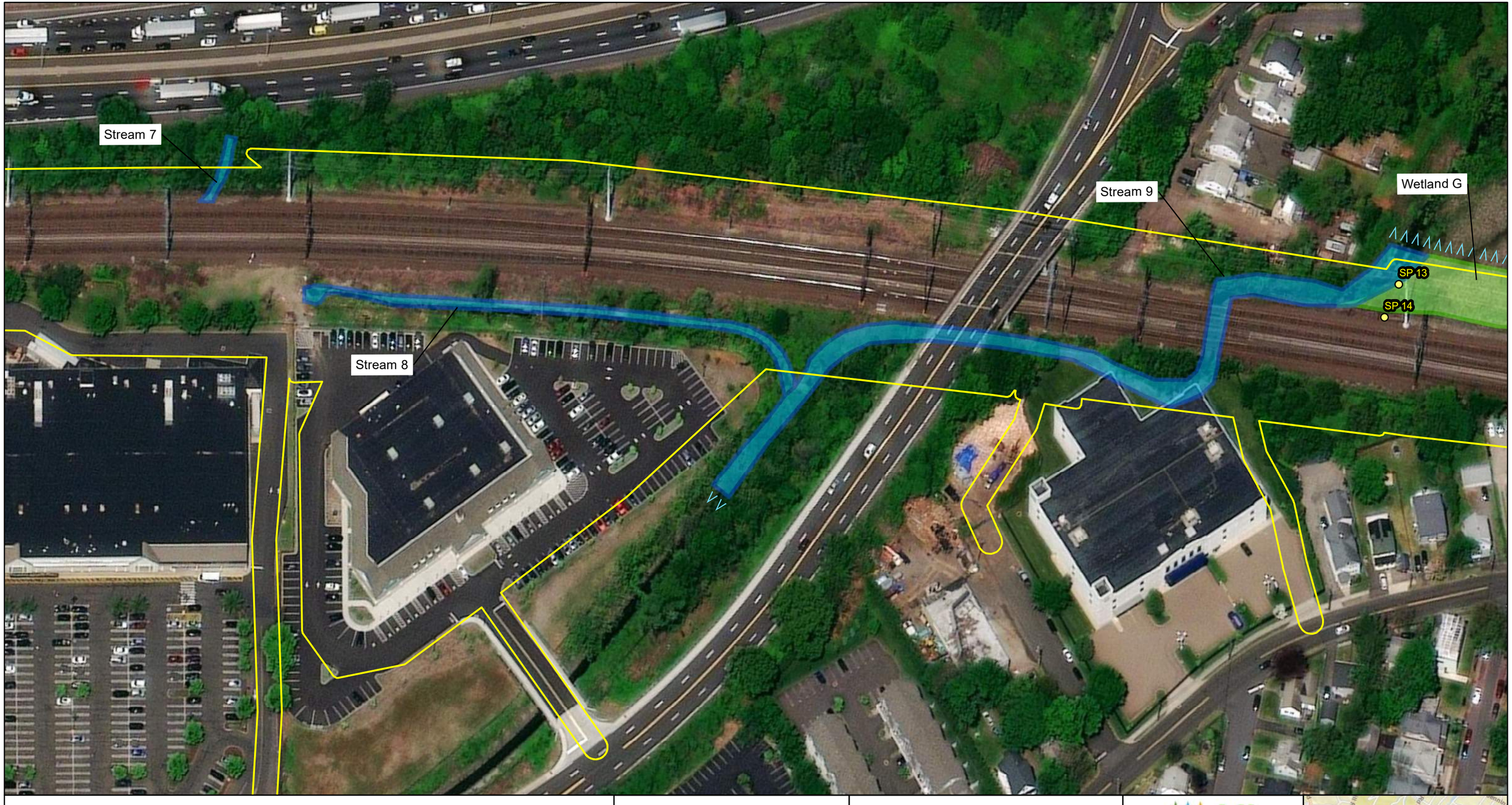

Legend

Field Delineated Stream

Field Delineated Wetland

Continuous Feature

Service Layer Credits: Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, (c) OpenStreetMap contributors, and the GIS User Community
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Fairfield County, CT
Water Resources Delineation Map

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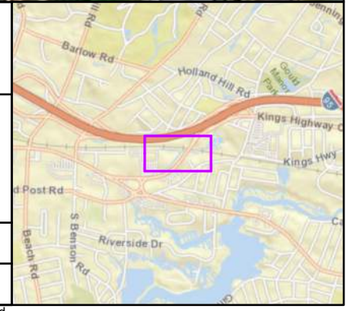

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Legend

Field Delineated Stream

Field Delineated Wetland

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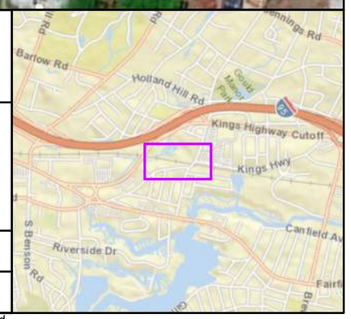

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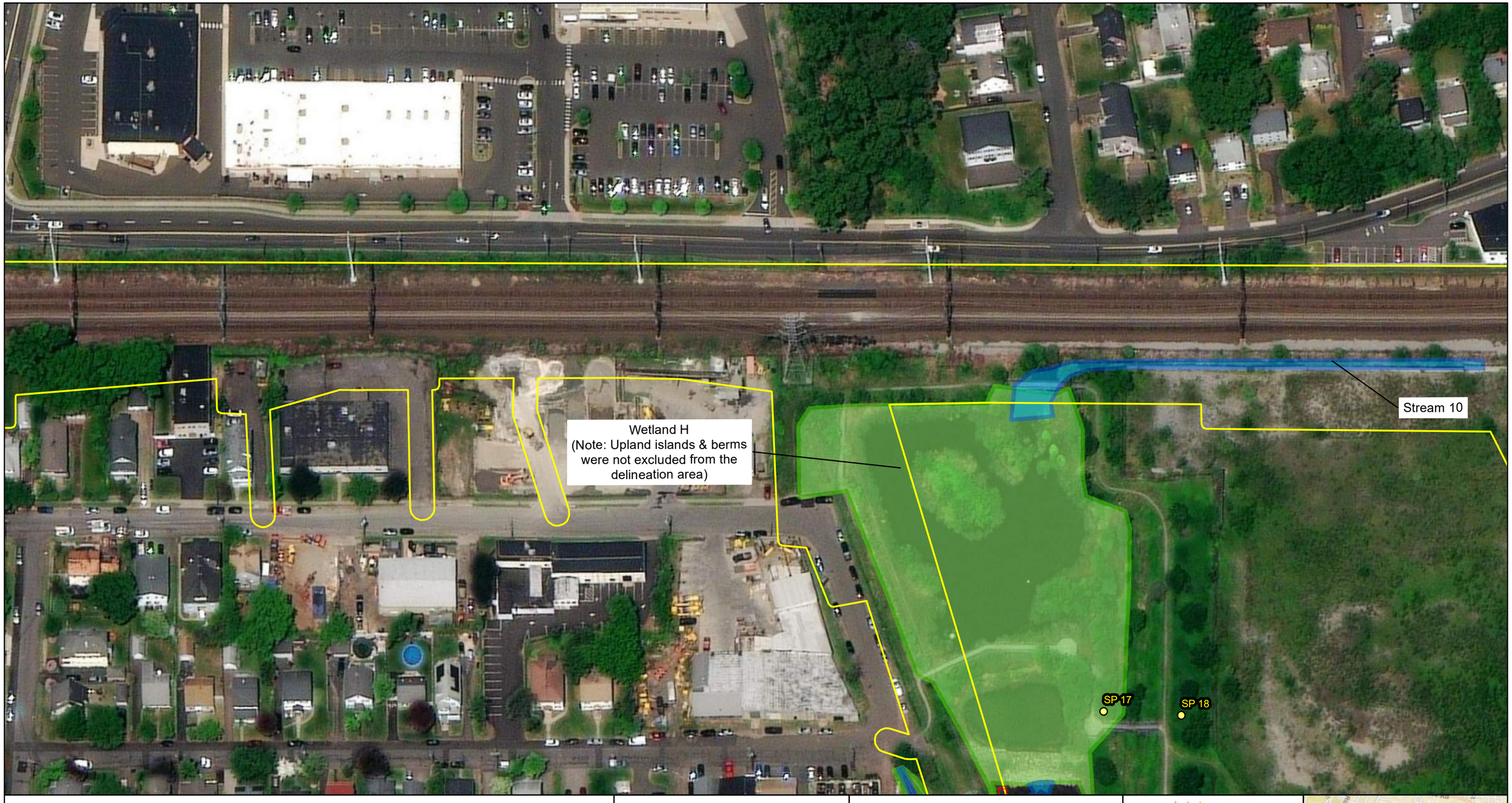

Legend

Field Delineated Stream

Field Delineated Wetland

Continuous Feature

Service Layer Credits: Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, (c) OpenStreetMap contributors, and the GIS User Community
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Fairfield County, CT
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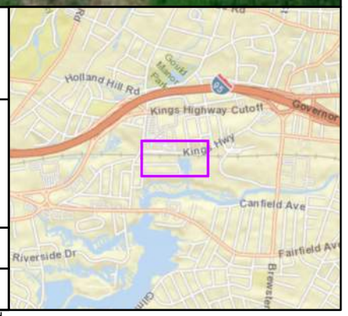

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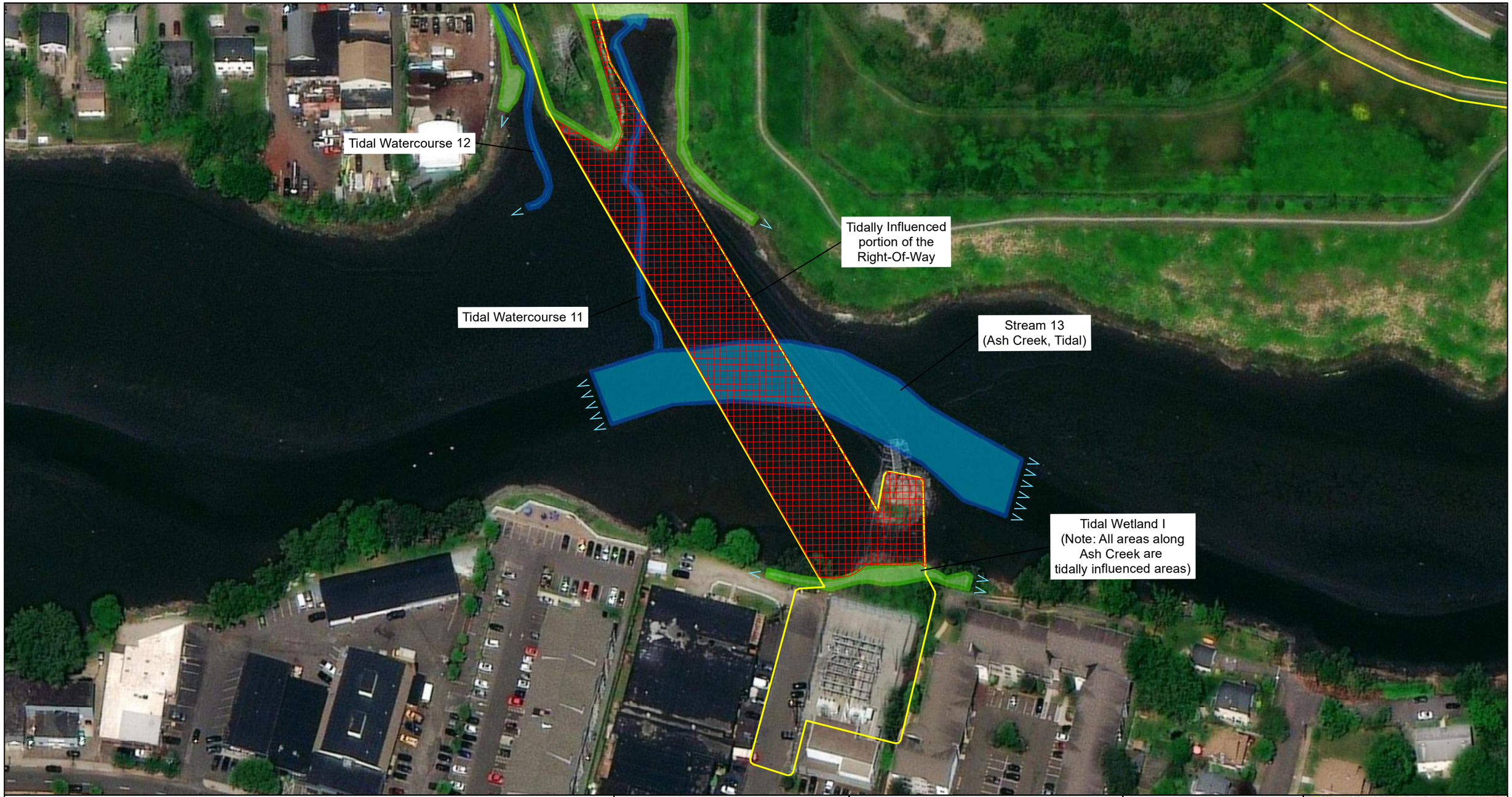

Legend

- Field Delineated Stream
- Field Delineated Wetland
- Continuous Feature

Service Layer Credits: Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, (c) OpenStreetMap contributors, and the GIS User Community
Source: Esri, Maxar, Earthstar Geographics, and the GIS User Community

1:1,200
1 inch = 100 feet

50 25 0 50 100 Feet

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Fairfield to Congress 115kV T-Line Project Fairfield County, CT Water Resources Delineation Map

PRJ NUM: 2102261

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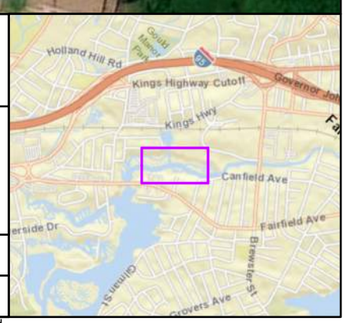

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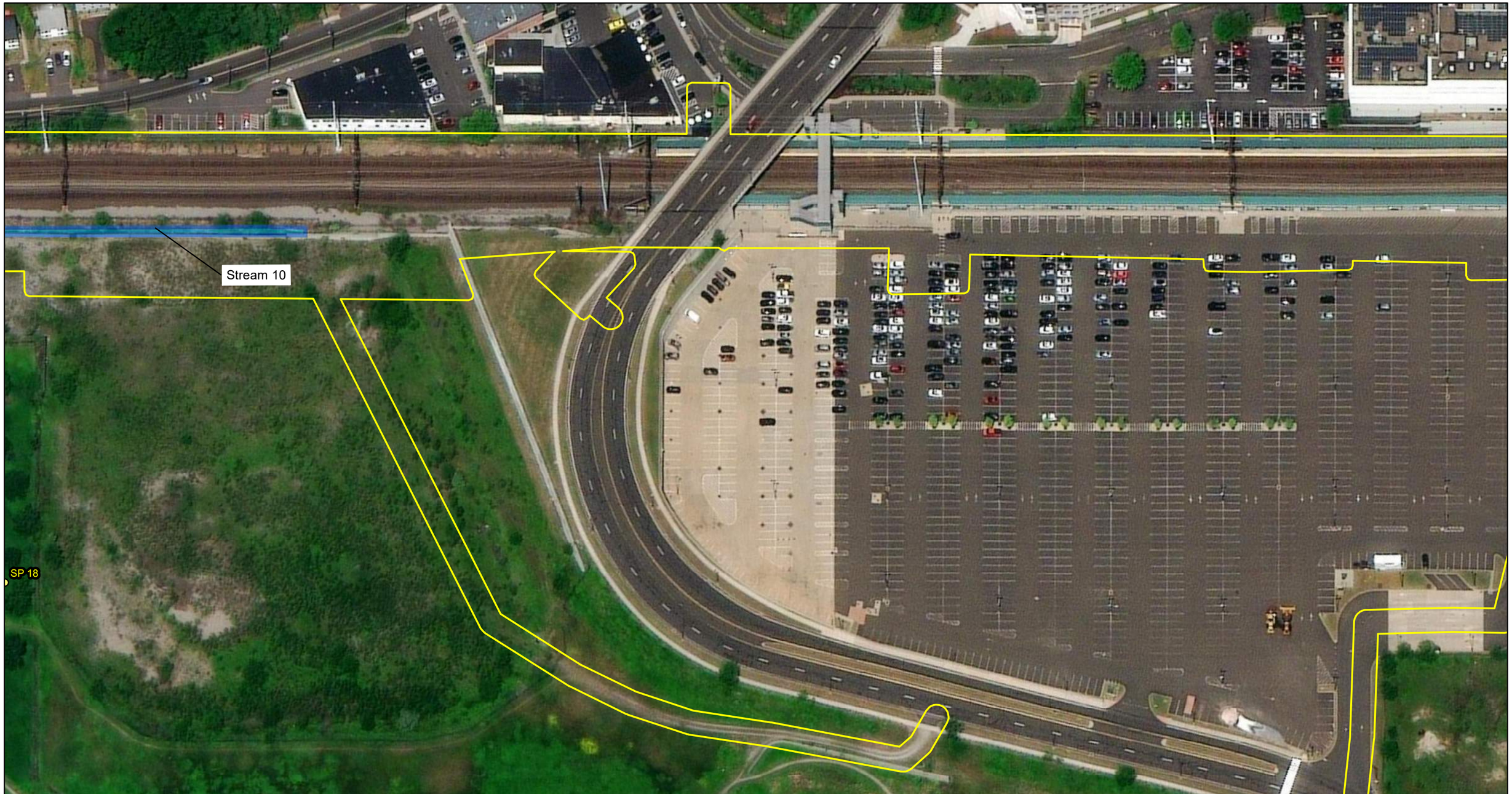

Legend

Field Delineated Stream

Field Delineated Wetland

Continuous Feature

Service Layer Credits: Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, (c) OpenStreetMap contributors, and the GIS User Community
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1:1,200
1 inch = 100 feet

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Fairfield County, CT
Water Resources Delineation Map

PRJ NUM: 2102261

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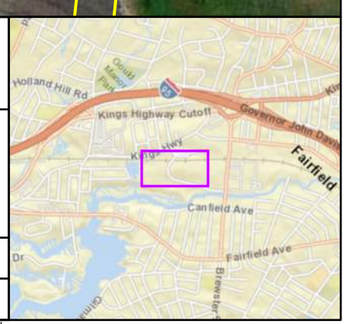

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Legend

- Field Delineated Stream
- Field Delineated Wetland
- Continuous Feature

Service Layer Credits: Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, (c) OpenStreetMap contributors, and the GIS User Community
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1:1,800
1 inch = 150 feet

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Legend

Field Delineated Stream

Field Delineated Wetland

Continuous Feature

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1:1,200
1 inch = 100 feet

50 25 0 50 100 Feet

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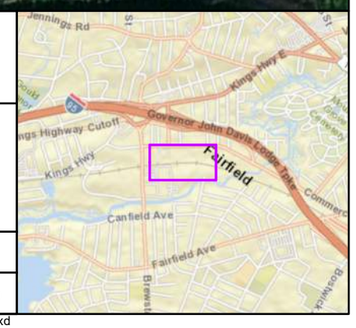

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SP 19
SP 20
Tidal Wetland J
Stream 13
(Ash Creek, Tidal)

Legend

Field Delineated Stream

Field Delineated Wetland

Continuous Feature

Service Layer Credits: Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, (c) OpenStreetMap contributors, and the GIS User Community
Source: Esri, Maxar, Earthstar Geographics, and the GIS User Community

1:1,800
1 inch = 150 feet

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Feet

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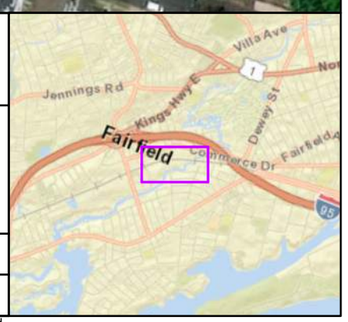

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SP 19

SP 20

Tidal Wetland J

Stream 13
(Ash Creek, Tidal)

Legend

Field Delineated Stream

Field Delineated Wetland

Continuous Feature

Service Layer Credits: Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, (c) OpenStreetMap contributors, and the GIS User Community
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1:1,200
1 inch = 100 feet

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Feet

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Fairfield County, CT
Water Resources Delineation Map

PRJ NUM: 2102261

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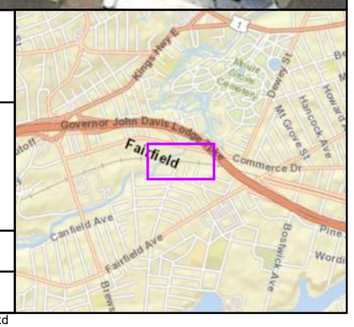

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Legend

Field Delineated Stream

Field Delineated Wetland

Continuous Feature

Service Layer Credits: Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, (c) OpenStreetMap contributors, and the GIS User Community
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1 inch = 100 feet

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Legend

Field Delineated Stream

Field Delineated Wetland

Continuous Feature

Service Layer Credits: Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, (c) OpenStreetMap contributors, and the GIS User Community
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1:1,200
1 inch = 100 feet

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Legend

Field Delineated Stream

Field Delineated Wetland

Continuous Feature

Service Layer Credits: Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, (c) OpenStreetMap contributors, and the GIS User Community
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1:1,800
1 inch = 150 feet

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Legend

Field Delineated Stream

Field Delineated Wetland

Continuous Feature

Service Layer Credits: Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, (c) OpenStreetMap contributors, and the GIS User Community
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1 inch = 100 feet

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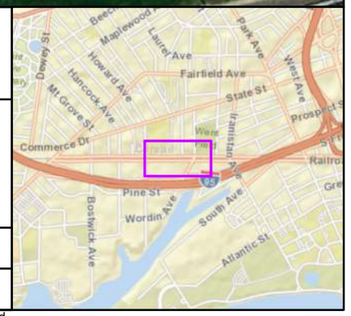

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Legend

Field Delineated Stream

Field Delineated Wetland

Continuous Feature

Service Layer Credits: Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, (c) OpenStreetMap contributors, and the GIS User Community
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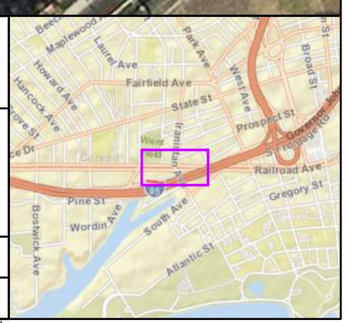

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Legend

Field Delineated Stream

Field Delineated Wetland

Continuous Feature

Service Layer Credits: Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, (c) OpenStreetMap contributors, and the GIS User Community
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1:1,200
1 inch = 100 feet

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Fairfield County, CT
Water Resources Delineation Map

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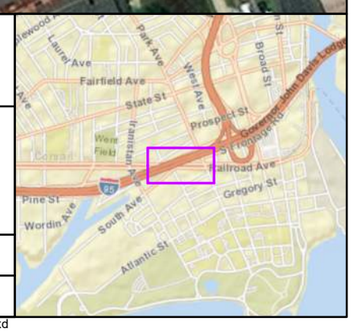

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Legend

Field Delineated Stream

Field Delineated Wetland

Continuous Feature

Service Layer Credits: Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, (c) OpenStreetMap contributors, and the GIS User Community
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1:1,200
1 inch = 100 feet

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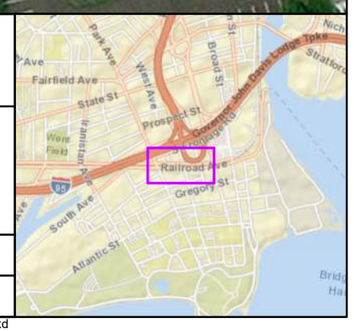

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Legend

Field Delineated Stream

Field Delineated Wetland

Continuous Feature

Service Layer Credits: Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, (c) OpenStreetMap contributors, and the GIS User Community
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1 inch = 100 feet

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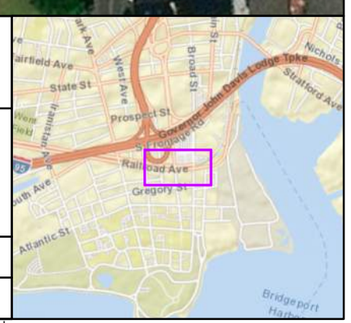

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Legend

Field Delineated Stream

Field Delineated Wetland

Continuous Feature

Service Layer Credits: Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, (c) OpenStreetMap contributors, and the GIS User Community
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1:1,200
1 inch = 100 feet

50 25 0 50 100
Feet

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Fairfield to Congress 115kV T-Line Project
Fairfield County, CT
Water Resources Delineation Map

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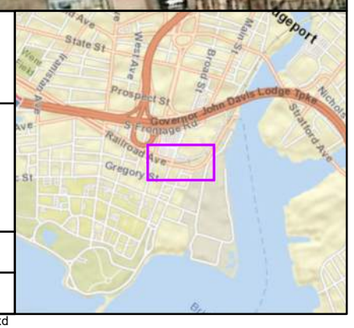

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Legend

Field Delineated Stream

Field Delineated Wetland

Continuous Feature

Service Layer Credits: Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, (c) OpenStreetMap contributors, and the GIS User Community
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1:1,200
1 inch = 100 feet

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Stream 14
(Pequonnock River)
(Tidal)

Legend

Field Delineated Stream

Field Delineated Wetland

Continuous Feature

Service Layer Credits: Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, (c) OpenStreetMap contributors, and the GIS User Community
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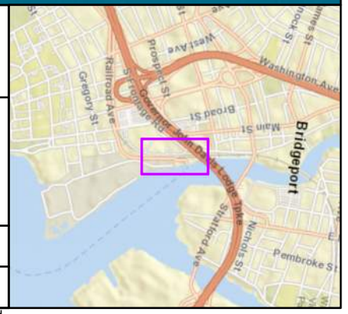

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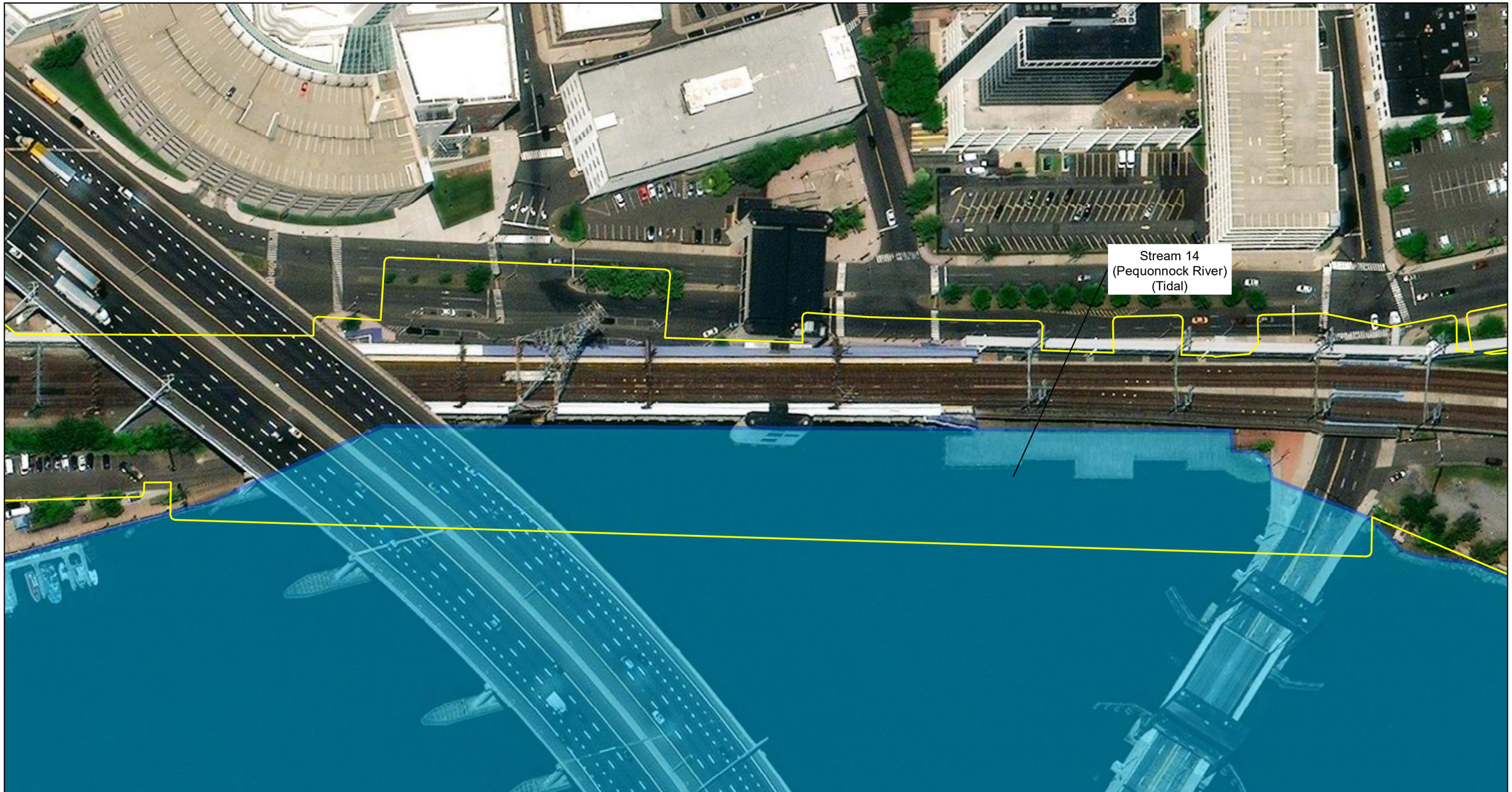

Legend

Field Delineated Stream

Field Delineated Wetland

Continuous Feature

Service Layer Credits: Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, (c) OpenStreetMap contributors, and the GIS User Community
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Fairfield County, CT
Water Resources Delineation Map

PRJ NUM: 2102261

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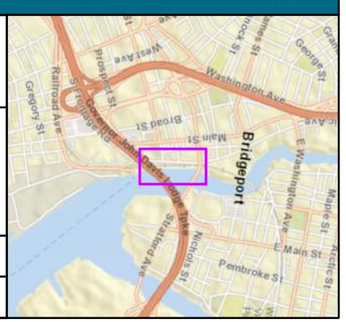

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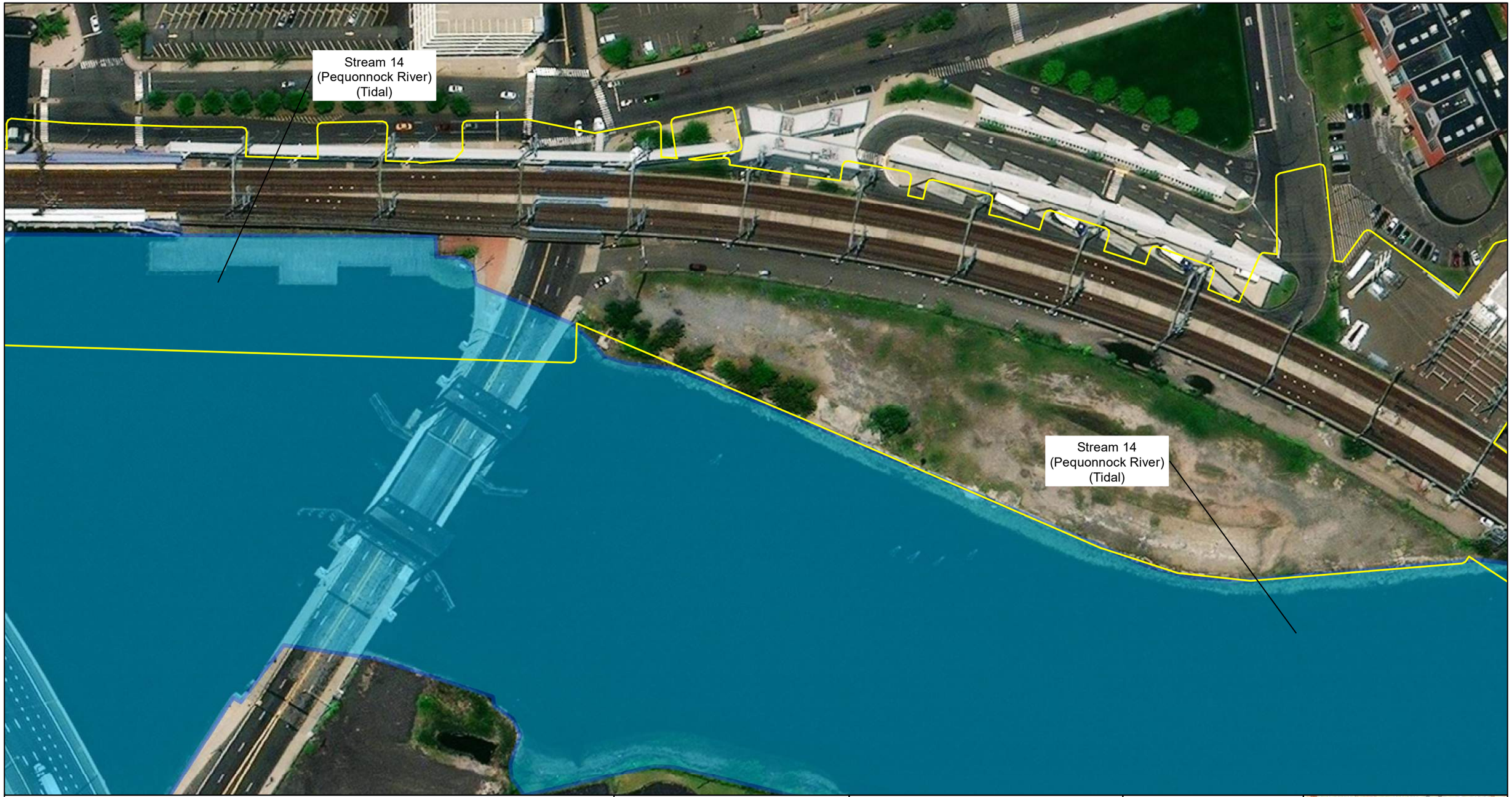

Legend

Field Delineated Stream

Field Delineated Wetland

Continuous Feature

Service Layer Credits: Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, (c) OpenStreetMap contributors, and the GIS User Community
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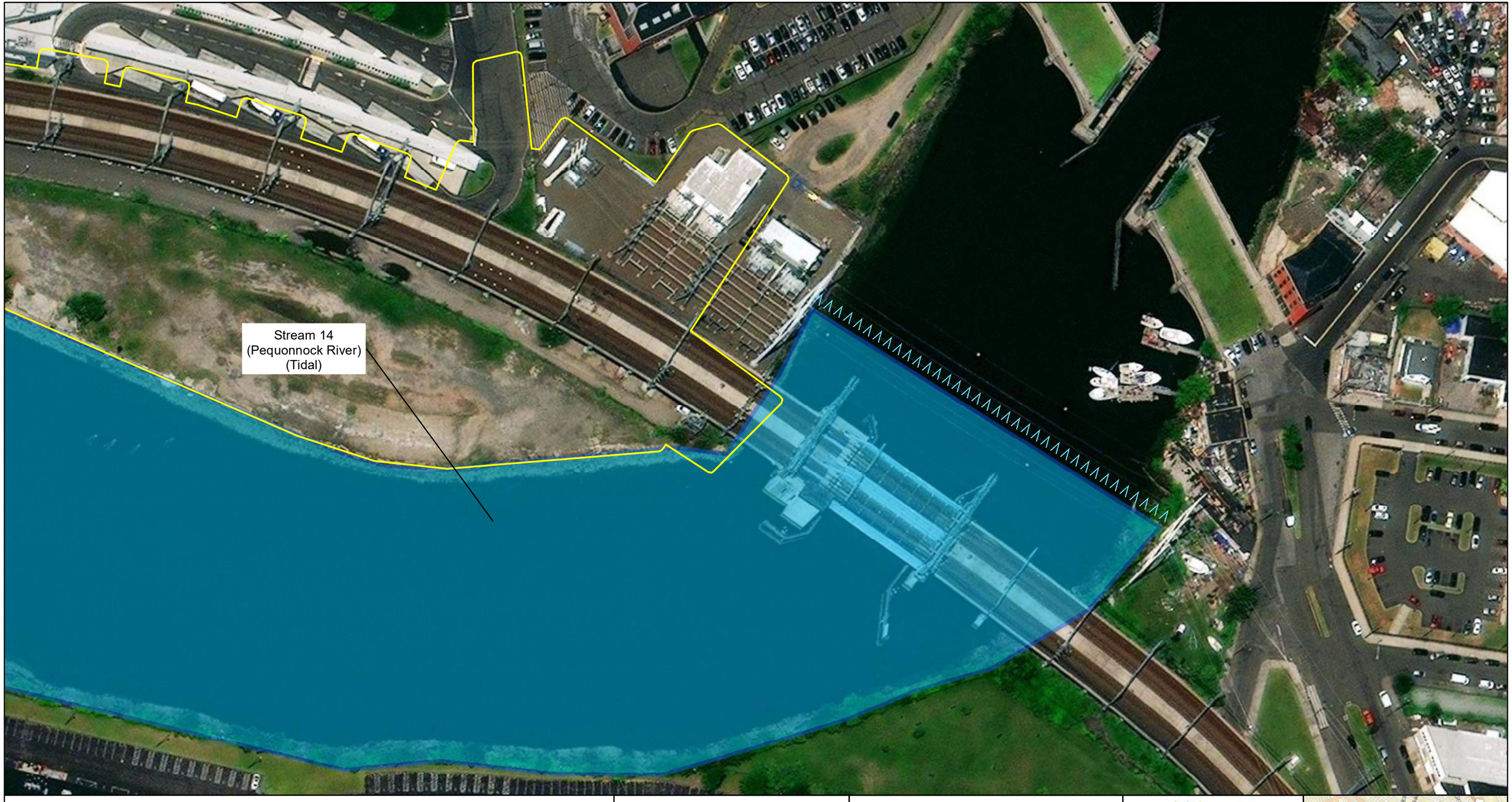

Legend

Field Delineated Stream

Field Delineated Wetland

Continuous Feature

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Source: Esri, Maxar, Earthstar Geographics, and the GIS User Community

1:1,200
1 inch = 100 feet

50 25 0 50 100 Feet

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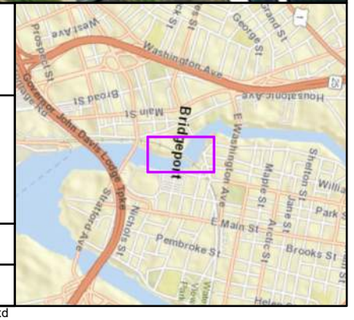
UI AVANGRID

Fairfield to Congress 115kV T-Line Project
Fairfield County, CT
Water Resources Delineation Map

DRAWN BY: SMS	**APPROVED BY:** WGW
Version: Version 3	**DATE:** 8/30/2022
Notes:	**PRJ NUM:** 2102261
	APPENDIX C SHEET NUMBER: 39 OF 39



Document Path: G:\JOBS21\22\2102261\GIS\MXD\Appendix C. Wetland Delineation Map.mxd

APPENDIX: D Photographic Documentation

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Fairfield to Congress - 115kV T-Line Photographic Documentation

Photo # 1
Date: April 17, 2019
Direction: East

Description

Eastern view of Tidal Wetland A along the southern side of the railroad. Tidal Wetland A is a coastal wetland area within the tidal flats of Sasco Creek (Tidal). This feature is part of Complex A and is located west of the Fairfield-Congress Project Start Location.

Photograph was taken outside of the Project Area and in areas not crossed by the project.



Photo # 2
Date: April 17, 2019
Direction: West

Description

Western view of Tidal Wetland A along the northern side of the railroad. Tidal Wetland A is a coastal wetland area within the tidal flats of Sasco Creek (Tidal). This feature is part of Complex A and is located west of the Fairfield-Congress Project Start Location.

Photograph was taken outside of the Project Area and in areas not crossed by the project.



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Fairfield to Congress - 115kV T-Line Photographic Documentation

Photo # 3
Date: April 16, 2019
Direction: North

Description

Northern view of Stream 1, Sasco Creek (Tidal), on the southern side of the railroad. Sasco Creek is part of Complex A and is located west of the Fairfield-Congress Project Start Location.

Photograph was taken outside of the Project Area and in areas not crossed by the project.



Photo # 4
Date: April 16, 2019
Direction: Southwest

Description

Southwestern view of Stream 1, Sasco Creek (Tidal), on the southern side of the railroad. Sasco Creek (Tidal) is part of Complex A and is located west of the Fairfield-Congress Project Start Location.

Photograph was taken outside of the Project Area and in areas not crossed by the project.



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Fairfield to Congress - 115kV T-Line Photographic Documentation

Photo # 5
Date: April 16, 2019
Direction: Southwest

Description

Southwestern view of Stream 1, Sasco Creek (Tidal), on the northern side of the railroad. Sasco Creek (Tidal) is part of Complex A and is located west of the Fairfield-Congress Project Start Location.

Photograph was taken outside of the Project Area and in areas not crossed by the project.



Photo # 6
Date: April 4, 2022
Direction: West

Description

Western view of Wetland B, which is part of Complex B.



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Fairfield to Congress - 115kV T-Line Photographic Documentation

Photo # 7
Date: April 4, 2022
Direction: East

Description
Eastern view towards Stream 2, as part of Complex B.



Photo # 8
Date: April 4, 2022
Direction: East

Description
Eastern view towards Stream 3, as part of Complex C.



Fairfield to Congress - 115kV T-Line Photographic Documentation

Photo # 9
Date: April 4, 2022
Direction: West

Description
Western view towards Stream 3, as part of Complex C.



Photo # 10
Date: April 18, 2019
Direction: East

Description
Eastern view of Stream 4, which is channelized in concrete throughout the area delineated and runs parallel to the southern edge of the railroad. Feature is part of Complex C.



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Fairfield to Congress - 115kV T-Line Photographic Documentation

Photo # 11
Date: April 23, 2019
Direction: North

Description
Northern view of Stream 5, as part of Complex C.



Photo # 12
Date: April 4, 2022
Direction: Northeast

Description
Northeastern view of Wetland C, which is part of Complex C.



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Fairfield to Congress - 115kV T-Line Photographic Documentation

Photo # 13
Date: April 23, 2019
Direction: South

Description

Southern view towards Wetland D, as part of Complex D.



Photo # 14
Date: April 23, 2019
Direction: Northeast

Description

Northeast view of Stream 6, Mill River, which is part of Complex D.



Fairfield to Congress - 115kV T-Line Photographic Documentation

Photo # 15
Date: April 17, 2019
Direction: North

Description
Northern view towards Wetland E, as part of Complex E.



Photo # 16
Date: April 4, 2022
Direction: East

Description
Eastern view of Wetland F, which is part of Complex E.



Fairfield to Congress - 115kV T-Line Photographic Documentation

Photo # 17
Date: April 5, 2022
Direction: West

Description
Western view towards Wetland F, as part of Complex E.



Photo # 18
Date: April 4, 2022
Direction: East

Description
Eastern view of Stream 7, which is part of Complex F.



Fairfield to Congress - 115kV T-Line Photographic Documentation

Photo # 19
Date: May 3, 2019
Direction: Northeast

Description

Northeastern of Stream 8. This watercourse is lined with concrete throughout the project area. This feature is part of Complex F.



Photo # 20
Date: May 3, 2019
Direction: East

Description

Eastern view of Stream 9, a perennial stream adjoining Wetland G. This feature is part of Complex F.



Fairfield to Congress - 115kV T-Line Photographic Documentation

Photo # 21
Date: April 19, 2019
Direction: Southwest

Description
Southwestern view of Wetland G, which is part of Complex F.



Photo # 22
Date: April 5, 2022
Direction: South

Description
Southern view of Wetland H, which is part of Complex G.



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Fairfield to Congress - 115kV T-Line Photographic Documentation

Photo # 23
Date: April 5, 2022
Direction: North

Description
Northern view of Wetland H, which is part of Complex G.



Photo # 24
Date: April 19, 2019
Direction: South

Description
Southern view of Tidal Wetland I, which is part of Complex G.



Fairfield to Congress - 115kV T-Line Photographic Documentation

Photo # 25
Date: April 19, 2019
Direction: Southeast

Description

Southeastern view of the northeastern portion of Stream 10, which receives hydrology during storm events and conveys such to the conservation area to the south of the railroad and then on to Ash Creek (Tidal) (Stream 13). Stream 10 is partially tidally influenced and part of Complex G.



Photo # 26
Date: April 19, 2019
Direction: South

Description

Southern view of Tidal Watercourse 11 which receives hydrology during storm events and conveys such to Ash Creek (Tidal) (Stream 13). Tidal Watercourse 11 is partially tidally influenced and part of Complex G.



Fairfield to Congress - 115kV T-Line Photographic Documentation

Photo # 27
Date: April 5, 2022
Direction: South

Description
Southern view of Tidal Watercourse 12, which is part of Complex G.



Photo # 28
Date: April 5, 2022
Direction: South

Description
Southern view of the western portion of Stream 13, Ash Creek (Tidal). This portion of Stream 13 is part of Complex G.



Fairfield to Congress - 115kV T-Line Photographic Documentation

Photo # 29
Date: April 19, 2019
Direction: Northwest

Description
Northwestern view of the eastern portion of Stream 13, Ash Creek (Tidal). This portion of Stream 13 is part of Complex H.



Photo # 30
Date: April 5, 2022
Direction: East

Description
Eastern view of Tidal Wetland J, which is part of Complex H.



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Fairfield to Congress - 115kV T-Line Photographic Documentation

Photo # 31
Date: April 30, 2019
Direction: South

Description

Southern view of Stream 14, Pequannock River (Tidal), which comprises Complex I.



APPENDIX: E Wetland Data Sheets

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WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: Fairfield to Congress - 115kV T-Line City/County: Fairfield Co. Sampling Date: 4/16/2019

Applicant/Owner: Avangrid - United Illuminating State: CT Sampling Point: 1

Investigator(s): TS Section, Township, Range:

Landform (hillside, terrace, etc.): tidal flat Local relief (concave, convex, none): none Slope %: 0

Subregion (LRR or MLRA): LRR R Lat: 41.130088 Long: -73.296775 Datum: NAD 83

Soil Map Unit Name: (306) Udortents-Urban Land Complex NWI classification: E2EM5

Are climatic / hydrologic conditions on the site typical for this time of year? Yes x No (If no, explain in Remarks.)

Are Vegetation N, Soil N, or Hydrology N significantly disturbed? Are "Normal Circumstances" present? Yes x No

Are Vegetation N, Soil N, or Hydrology N naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes X	No	**Is the Sampled Area**
Hydric Soil Present?	Yes X	No	**within a Wetland?** **Yes** X **No**
Wetland Hydrology Present?	Yes X	No	If yes, optional Wetland Site ID: Tidal Wetland A

Remarks: (Explain alternative procedures here or in a separate report.)
The incoming tide and substrate made this area largely unsafe for sampling. This sample point represents Tidal Wetland A on the northern and southern side of the railroad. These are coastal areas that are tidally influenced. The vegetation community is essentially a monocultural stand of Phragmites. Wetland/non-wetland interface is abrupt as there is a significant change in elevation.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- X Surface Water (A1)
- X High Water Table (A2)
- Saturation (A3)
- Water Marks (B1)
- Sediment Deposits (B2)
- Drift Deposits (B3)
- Algal Mat or Crust (B4)
- Iron Deposits (B5)
- x Inundation Visible on Aerial Imagery (B7)
- Sparsely Vegetated Concave Surface (B8)
- Water-Stained Leaves (B9)
- Aquatic Fauna (B13)
- Marl Deposits (B15)
- Hydrogen Sulfide Odor (C1)
- Oxidized Rhizospheres on Living Roots (C3)
- Presence of Reduced Iron (C4)
- Recent Iron Reduction in Tilled Soils (C6)
- Thin Muck Surface (C7)
- Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- Surface Soil Cracks (B6)
- Drainage Patterns (B10)
- Moss Trim Lines (B16)
- Dry-Season Water Table (C2)
- Crayfish Burrows (C8)
- Saturation Visible on Aerial Imagery (C9)
- Stunted or Stressed Plants (D1)
- Geomorphic Position (D2)
- Shallow Aquitard (D3)
- Microtopographic Relief (D4)
- X FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes x	No	Depth (inches): 4
Water Table Present?	Yes x	No	Depth (inches): 0
Saturation Present? (includes capillary fringe)	Yes x	No	Depth (inches): 0

Wetland Hydrology Present? **Yes** X **No**

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
Wetland hydrology observed; note, hydrology changes with the tides

VEGETATION – Use scientific names of plants. Sampling Point: 1

Tree Stratum (Plot size: 30)	Absolute % Cover	Dominant Species?	Indicator Status
1. *Not applicable*			
2.			
3.			
4.			
5.			
6.			
7.			
	=Total Cover		
Sapling/Shrub Stratum (Plot size: 15)			
1. *Not applicable*			
2.			
3.			
4.			
5.			
6.			
7.			
	=Total Cover		
Herb Stratum (Plot size: 5)			
1. *Phragmites australis*	100	Yes	FACW
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
	100 =Total Cover		
Woody Vine Stratum (Plot size: 30)			
1. *Not applicable*			
2.			
3.			
4.			
	=Total Cover		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across All Strata: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	100	x 2 =	200
FAC species	0	x 3 =	0
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	100 (A)		200 (B)

Prevalence Index = B/A = 2.00

Hydrophytic Vegetation Indicators:

___ 1 - Rapid Test for Hydrophytic Vegetation

X 2 - Dominance Test is >50%

X 3 - Prevalence Index is ≤3.0[1]

___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Vegetation Strata:

Tree – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/shrub – Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vines – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? **Yes** X **No** ___

Remarks: (Include photo numbers here or on a separate sheet.)
Hydrophytic community as illustrated by results of analyses

SOIL

Sampling Point: 1

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

[2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Polyvalue Below Surface (S8) (**LRR R, MLRA 149B**)
- ___ Thin Dark Surface (S9) (**LRR R, MLRA 149B**)
- ___ High Chroma Sands (S11) (**LRR K, L)**
- ___ Loamy Mucky Mineral (F1) (**LRR K, L**)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Marl (F10) (**LRR K, L**)

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) (**LRR K, L, MLRA 149B**)
- ___ Coast Prairie Redox (A16) (**LRR K, L, R**)
- ___ 5 cm Mucky Peat or Peat (S3) (**LRR K, L, R**)
- ___ Polyvalue Below Surface (S8) (**LRR K, L**)
- ___ Thin Dark Surface (S9) (**LRR K, L**)
- ___ Iron-Manganese Masses (F12) (**LRR K, L, R**)
- ___ Piedmont Floodplain Soils (F19) (**MLRA 149B**)
- ___ Mesic Spodic (TA6) (**MLRA 144A, 145, 149B**)
- ___ Red Parent Material (F21)
- ___ Very Shallow Dark Surface (F22)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** X **No** ___

Remarks:

Did not sample soils in the field due to hazardous conditions, however, given the hydrologic regime, position in the landscape, it is likely that hydric soils indicators would have been observed

WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: Fairfield to Congress - 115kV T-Line City/County: Fairfield Co. Sampling Date: 4/16/2019

Applicant/Owner: Avangrid - United Illuminating State: CT Sampling Point: 2

Investigator(s): TS Section, Township, Range:

Landform (hillside, terrace, etc.): terrace Local relief (concave, convex, none): none Slope %: 1

Subregion (LRR or MLRA): LRR R Lat: 41.129931 Long: -73.296420 Datum: NAD 83

Soil Map Unit Name: 306 Udorthents-Urban Land Complex NWI classification: Non-wetland

Are climatic / hydrologic conditions on the site typical for this time of year? Yes x No (If no, explain in Remarks.)

Are Vegetation N, Soil N, or Hydrology N significantly disturbed? Are "Normal Circumstances" present? Yes x No

Are Vegetation N, Soil N, or Hydrology N naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes	No	**Is the Sampled Area**
Hydric Soil Present?	Yes	No X	**within a Wetland?** **Yes** **No** X
Wetland Hydrology Present?	Yes	No x	If yes, optional Wetland Site ID:

Remarks: (Explain alternative procedures here or in a separate report.)
No rain previous 48-hrs, cloudless sky, air temp 40s F, breeze. Upland sample point associated with Tidal Wetland A.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ Marl Deposits (B15)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ___ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes	No x	Depth (inches):
Water Table Present?	Yes	No x	Depth (inches):
Saturation Present? (includes capillary fringe)	Yes	No x	Depth (inches):

Wetland Hydrology Present? **Yes** **No** x

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
No indications of Wetland hydrology observed

VEGETATION – Use scientific names of plants. Sampling Point: 2

Tree Stratum (Plot size: 30)	Absolute % Cover	Dominant Species?	Indicator Status
1. *Acer rubrum*	50	Yes	FAC
2. *Quercus palustris*	20	Yes	FACW
3. *Quercus rubra*	20	Yes	FACU
4.			
5.			
6.			
7.			
	90	=Total Cover	
Sapling/Shrub Stratum (Plot size: 15)			
1. *Berberis thunbergii*	10	Yes	FACU
2. *Rosa rugosa*	5	Yes	FACU
3.			
4.			
5.			
6.			
7.			
	15	=Total Cover	
Herb Stratum (Plot size: 5)			
1. *Not applicable*			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
		=Total Cover	
Woody Vine Stratum (Plot size: 30)			
1. *Not applicable*			
2.			
3.			
4.			
		=Total Cover	

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)

Total Number of Dominant Species Across All Strata: 5 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 40.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	20	x 2 =	40
FAC species	50	x 3 =	150
FACU species	35	x 4 =	140
UPL species	0	x 5 =	0
Column Totals:	105 (A)		330 (B)

Prevalence Index = B/A = 3.14

Hydrophytic Vegetation Indicators:

___ 1 - Rapid Test for Hydrophytic Vegetation

___ 2 - Dominance Test is >50%

___ 3 - Prevalence Index is ≤3.0[1]

___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Vegetation Strata:

Tree – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/shrub – Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vines – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? **Yes** ___ **No** ___

Remarks: (Include photo numbers here or on a separate sheet.)
Hydrophytic community as illustrated by results of Prevalence index. Some unidentifiable Carex specimens (due to time of year/lack of diagnostic structures) are throughout this area

SOIL

Sampling Point: 2

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-2	10YR 2/2	100					Loamy/Clayey	repeated refusal at 2"

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

[2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Polyvalue Below Surface (S8) (**LRR R, MLRA 149B**)
- ___ Thin Dark Surface (S9) (**LRR R, MLRA 149B**)
- ___ High Chroma Sands (S11) (**LRR K, L)**
- ___ Loamy Mucky Mineral (F1) (**LRR K, L**)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Marl (F10) (**LRR K, L**)

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) (**LRR K, L, MLRA 149B**)
- ___ Coast Prairie Redox (A16) (**LRR K, L, R**)
- ___ 5 cm Mucky Peat or Peat (S3) (**LRR K, L, R**)
- ___ Polyvalue Below Surface (S8) (**LRR K, L**)
- ___ Thin Dark Surface (S9) (**LRR K, L**)
- ___ Iron-Manganese Masses (F12) (**LRR K, L, R**)
- ___ Piedmont Floodplain Soils (F19) (**MLRA 149B**)
- ___ Mesic Spodic (TA6) (**MLRA 144A, 145, 149B**)
- ___ Red Parent Material (F21)
- ___ Very Shallow Dark Surface (F22)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: Rock

Depth (inches): 2

Hydric Soil Present? **Yes** ___ **No** X

Remarks:

This "soil" was very rocky (closer to rail road bed); experienced rock refusal at a depth of 2" at multiple locations. Unclear if this is within our area of investigation (could be too far south)

WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: Fairfield to Congress - 115kV T-Line City/County: Fairfield Co. Sampling Date: 4/4/2022

Applicant/Owner: Avangrid - United Illuminating State: CT Sampling Point: 3

Investigator(s): SMS Section, Township, Range:

Landform (hillside, terrace, etc.): Depression Local relief (concave, convex, none): Concave Slope %: 2

Subregion (LRR or MLRA): LRR R Lat: 41.13284 Long: -73.29126 Datum: NAD 83

Soil Map Unit Name: Scarboro muck, 0 to 3 percent slopes NWI classification: PEM

Are climatic / hydrologic conditions on the site typical for this time of year? Yes x No ____ (If no, explain in Remarks.)

Are Vegetation N, Soil N, or Hydrology N significantly disturbed? Are "Normal Circumstances" present? Yes x No ____

Are Vegetation N, Soil N, or Hydrology N naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes X	No ____	**Is the Sampled Area**
Hydric Soil Present?	Yes X	No ____	**within a Wetland?** **Yes** X **No** ____
Wetland Hydrology Present?	Yes X	No ____	If yes, optional Wetland Site ID: Wetland B

Remarks: (Explain alternative procedures here or in a separate report.)
The change between wetland and non-wetland habitats is conspicuous in the field due to an abprupt change in elevation. This sampling point was taken within a PEM weltand habitat. While some forested habitat was present, the percent cover of the forested statum did not equal or exceed 30% coverage. This sample point represents Wetland B.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- X Surface Water (A1)
- X High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ Marl Deposits (B15)
- X Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ___ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- X FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes x	No ____	Depth (inches): 2
Water Table Present?	Yes x	No ____	Depth (inches): 0
Saturation Present? (includes capillary fringe)	Yes x	No ____	Depth (inches): 0

Wetland Hydrology Present? **Yes** X **No** ____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
Wetland hydrology indicators observed

VEGETATION – Use scientific names of plants. Sampling Point: 3

Tree Stratum (Plot size: 30)	Absolute % Cover	Dominant Species?	Indicator Status
1. *Acer rubrum*	15	Yes	FAC
2.			
3.			
4.			
5.			
6.			
7.			
	15	=Total Cover	
Sapling/Shrub Stratum (Plot size: 15)			
1. *Not applicable*			
2.			
3.			
4.			
5.			
6.			
7.			
		=Total Cover	
Herb Stratum (Plot size: 5)			
1. *Phragmites australis*	95	Yes	FACW
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
	95	=Total Cover	
Woody Vine Stratum (Plot size: 30)			
1. *Not applicable*			
2.			
3.			
4.			
		=Total Cover	

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)

Total Number of Dominant Species Across All Strata: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	95	x 2 =	190
FAC species	15	x 3 =	45
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	110 (A)		235 (B)

Prevalence Index = B/A = 2.14

Hydrophytic Vegetation Indicators:

___ 1 - Rapid Test for Hydrophytic Vegetation

X 2 - Dominance Test is >50%

X 3 - Prevalence Index is ≤3.0[1]

___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Vegetation Strata:

Tree – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/shrub – Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vines – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? **Yes** X **No** ___

Remarks: (Include photo numbers here or on a separate sheet.)
Hydrophytic community as illustrated by results of analyses

SOIL

Sampling Point: 3

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-20	10YR 2/1	95	10YR 5/6	5	C	M	Mucky Loam/Clay	fibric

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

[2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- X Histic Epipedon (A2)
- ___ Black Histic (A3)
- X Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Polyvalue Below Surface (S8) (**LRR R, MLRA 149B**)
- ___ Thin Dark Surface (S9) (**LRR R, MLRA 149B**)
- ___ High Chroma Sands (S11) (**LRR K, L)**
- ___ Loamy Mucky Mineral (F1) (**LRR K, L**)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- X Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Marl (F10) (**LRR K, L**)

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) (**LRR K, L, MLRA 149B**)
- ___ Coast Prairie Redox (A16) (**LRR K, L, R**)
- ___ 5 cm Mucky Peat or Peat (S3) (**LRR K, L, R**)
- ___ Polyvalue Below Surface (S8) (**LRR K, L**)
- ___ Thin Dark Surface (S9) (**LRR K, L**)
- ___ Iron-Manganese Masses (F12) (**LRR K, L, R**)
- ___ Piedmont Floodplain Soils (F19) (**MLRA 149B**)
- ___ Mesic Spodic (TA6) (**MLRA 144A, 145, 149B**)
- ___ Red Parent Material (F21)
- ___ Very Shallow Dark Surface (F22)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** ____ **No** ____

Remarks:

Hydric soils indicators observed

WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: Fairfield to Congress - 115kV T-Line City/County: Fairfield Co. Sampling Date: 3/29/2019

Applicant/Owner: Avangrid - United Illuminating State: CT Sampling Point: 4

Investigator(s): SMS Section, Township, Range:

Landform (hillside, terrace, etc.): terrace Local relief (concave, convex, none): none Slope %: 0

Subregion (LRR or MLRA): LRR R Lat: 41.14888 Long: -73.24934 Datum: NAD 83

Soil Map Unit Name: Udorthents-Urban Land Complex NWI classification: Non-wetland

Are climatic / hydrologic conditions on the site typical for this time of year? Yes x No (If no, explain in Remarks.)

Are Vegetation , Soil N , or Hydrology N significantly disturbed? Are "Normal Circumstances" present? Yes x No

Are Vegetation N , Soil N , or Hydrology N naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes	No X	**Is the Sampled Area**
Hydric Soil Present?	Yes	No X	**within a Wetland?** **Yes** **No** X
Wetland Hydrology Present?	Yes	No x	If yes, optional Wetland Site ID:

Remarks: (Explain alternative procedures here or in a separate report.)
The change between wetland and non-wetland habitats is conspicuous in the field due to an abprupt change in elevation. This sample point is located in an upland habitat and is on a terrace between Wetland B and a paved driveway area.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- Surface Water (A1)
- High Water Table (A2)
- Saturation (A3)
- Water Marks (B1)
- Sediment Deposits (B2)
- Drift Deposits (B3)
- Algal Mat or Crust (B4)
- Iron Deposits (B5)
- Inundation Visible on Aerial Imagery (B7)
- Sparsely Vegetated Concave Surface (B8)
- Water-Stained Leaves (B9)
- Aquatic Fauna (B13)
- Marl Deposits (B15)
- Hydrogen Sulfide Odor (C1)
- Oxidized Rhizospheres on Living Roots (C3)
- Presence of Reduced Iron (C4)
- Recent Iron Reduction in Tilled Soils (C6)
- Thin Muck Surface (C7)
- Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- Surface Soil Cracks (B6)
- Drainage Patterns (B10)
- Moss Trim Lines (B16)
- Dry-Season Water Table (C2)
- Crayfish Burrows (C8)
- Saturation Visible on Aerial Imagery (C9)
- Stunted or Stressed Plants (D1)
- Geomorphic Position (D2)
- ? Shallow Aquitard (D3)
- Microtopographic Relief (D4)
- FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes	No	Depth (inches):
Water Table Present?	Yes	No	Depth (inches):
Saturation Present? (includes capillary fringe)	Yes	No	Depth (inches):

Wetland Hydrology Present? **Yes** **No** x

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
No signs of wetland hydrology observed

VEGETATION – Use scientific names of plants. Sampling Point: 4

Tree Stratum (Plot size: 30)	Absolute % Cover	Dominant Species?	Indicator Status
1. *Not applicable*			
2.			
3.			
4.			
5.			
6.			
7.			
	=Total Cover		
Sapling/Shrub Stratum (Plot size: 15)			
1. *Rosa multiflora*	10	Yes	FACU
2. *Lonicera tatarica*	10	Yes	FACU
3.			
4.			
5.			
6.			
7.			
	20 =Total Cover		
Herb Stratum (Plot size: 5)			
1. *Tussilago farfara*	5	Yes	FACU
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
	5 =Total Cover		
Woody Vine Stratum (Plot size: 30)			
1. *Not applicable*			
2.			
3.			
4.			
	=Total Cover		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across All Strata: 3 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	0	x 3 =	0
FACU species	25	x 4 =	100
UPL species	0	x 5 =	0
Column Totals:	25 (A)		100 (B)

Prevalence Index = B/A = 4.00

Hydrophytic Vegetation Indicators:

___ 1 - Rapid Test for Hydrophytic Vegetation

___ 2 - Dominance Test is >50%

___ 3 - Prevalence Index is ≤3.0[1]

___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Vegetation Strata:

Tree – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/shrub – Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vines – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? **Yes** ___ **No** X

Remarks: (Include photo numbers here or on a separate sheet.)
Not a Hydrophytic community as illustrated by results of analyses

SOIL

Sampling Point: 4

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-3	10YR 4/3	100						Silt loam; gravelly
3-18	10YR 5/3	100						Silt loam; gravelly

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

[2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Polyvalue Below Surface (S8) (**LRR R, MLRA 149B**)
- ___ Thin Dark Surface (S9) (**LRR R, MLRA 149B**)
- ___ High Chroma Sands (S11) (**LRR K, L)**
- ___ Loamy Mucky Mineral (F1) (**LRR K, L**)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Marl (F10) (**LRR K, L**)

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) (**LRR K, L, MLRA 149B**)
- ___ Coast Prairie Redox (A16) (**LRR K, L, R**)
- ___ 5 cm Mucky Peat or Peat (S3) (**LRR K, L, R**)
- ___ Polyvalue Below Surface (S8) (**LRR K, L**)
- ___ Thin Dark Surface (S9) (**LRR K, L**)
- ___ Iron-Manganese Masses (F12) (**LRR K, L, R**)
- ___ Piedmont Floodplain Soils (F19) (**MLRA 149B**)
- ___ Mesic Spodic (TA6) (**MLRA 144A, 145, 149B**)
- ___ Red Parent Material (F21)
- ___ Very Shallow Dark Surface (F22)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: Rock

Depth (inches): 3

Hydric Soil Present? **Yes** ___ **No** X

Remarks:

No hydric soils indicators observed.

WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: Fairfield to Congress - 115kV T-Line City/County: Fairfield Co. Sampling Date: 4/23/2019

Applicant/Owner: Avangrid - United Illuminating State: CT Sampling Point: 5

Investigator(s): DK/JK Section, Township, Range:

Landform (hillside, terrace, etc.): depression Local relief (concave, convex, none): concave Slope %: 1

Subregion (LRR or MLRA): LRR R Lat: 41.139988 Long: -73.280395 Datum: NAD 83

Soil Map Unit Name: (306) Udorthents-Urban Land Complex NWI classification: PFO

Are climatic / hydrologic conditions on the site typical for this time of year? Yes x No (If no, explain in Remarks.)

Are Vegetation N, Soil N, or Hydrology N significantly disturbed? Are "Normal Circumstances" present? Yes x No

Are Vegetation N, Soil N, or Hydrology N naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes X	No	**Is the Sampled Area**
Hydric Soil Present?	Yes X	No	**within a Wetland?** **Yes** X **No**
Wetland Hydrology Present?	Yes X	No	If yes, optional Wetland Site ID: Wetland C

Remarks: (Explain alternative procedures here or in a separate report.)
No rain previous 48-hrs, air temp 50s F, breeze. This is a very narrow, linear, emergent feature along the toe slope of the railroad tracks within an existing railroad corridor. This sample point represents Wetland C.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- X Surface Water (A1)
- X High Water Table (A2)
- Saturation (A3)
- Water Marks (B1)
- Sediment Deposits (B2)
- Drift Deposits (B3)
- Algal Mat or Crust (B4)
- Iron Deposits (B5)
- Inundation Visible on Aerial Imagery (B7)
- X Sparsely Vegetated Concave Surface (B8)
- Water-Stained Leaves (B9)
- Aquatic Fauna (B13)
- Marl Deposits (B15)
- Hydrogen Sulfide Odor (C1)
- Oxidized Rhizospheres on Living Roots (C3)
- Presence of Reduced Iron (C4)
- Recent Iron Reduction in Tilled Soils (C6)
- Thin Muck Surface (C7)
- Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- Surface Soil Cracks (B6)
- X Drainage Patterns (B10)
- Moss Trim Lines (B16)
- Dry-Season Water Table (C2)
- Crayfish Burrows (C8)
- Saturation Visible on Aerial Imagery (C9)
- Stunted or Stressed Plants (D1)
- X Geomorphic Position (D2)
- Shallow Aquitard (D3)
- Microtopographic Relief (D4)
- X FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes x	No	Depth (inches): 4
Water Table Present?	Yes x	No	Depth (inches): 0
Saturation Present? (includes capillary fringe)	Yes x	No	Depth (inches): 0

Wetland Hydrology Present? **Yes** X **No**

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
Wetland hydrology observed

VEGETATION – Use scientific names of plants. Sampling Point: 5

Tree Stratum (Plot size: 30)	Absolute % Cover	Dominant Species?	Indicator Status
1. *Not applicable*			
2.			
3.			
4.			
5.			
6.			
7.			
	=Total Cover		
Sapling/Shrub Stratum (Plot size: 15)			
1. *Not applicable*			
2.			
3.			
4.			
5.			
6.			
7.			
	=Total Cover		
Herb Stratum (Plot size: 5)			
1. *Glyceria striata*	60	Yes	OBL
2. *Alisma subcordatum*	10	No	OBL
3. *Equisetum arvense*	5	No	FAC
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
	75 =Total Cover		
Woody Vine Stratum (Plot size: 30)			
1. *Not applicable*			
2.			
3.			
4.			
	=Total Cover		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across All Strata: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	70	x 1 =	70
FACW species	0	x 2 =	0
FAC species	5	x 3 =	15
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	75 (A)		85 (B)

Prevalence Index = B/A = 1.13

Hydrophytic Vegetation Indicators:

___ 1 - Rapid Test for Hydrophytic Vegetation

X 2 - Dominance Test is >50%

X 3 - Prevalence Index is ≤3.0[1]

___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Vegetation Strata:

Tree – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/shrub – Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vines – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? **Yes** X **No** ___

Remarks: (Include photo numbers here or on a separate sheet.)
Hydrophytic vegetatiion criterion has has been met.

SOIL

Sampling Point: 5

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-4	10YR 2/1	100					Loamy/Clayey	Silt loam
4-20	10YR 4/2	96	10YR 4/6	4	C	M	Loamy/Clayey	Prominent redox concentrations

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

[2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- X Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Polyvalue Below Surface (S8) (**LRR R, MLRA 149B**)
- ___ Thin Dark Surface (S9) (**LRR R, MLRA 149B**)
- ___ High Chroma Sands (S11) (**LRR K, L)**
- ___ Loamy Mucky Mineral (F1) (**LRR K, L**)
- ___ Loamy Gleyed Matrix (F2)
- x Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Marl (F10) (**LRR K, L**)

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) (**LRR K, L, MLRA 149B**)
- ? Coast Prairie Redox (A16) (**LRR K, L, R**)
- ___ 5 cm Mucky Peat or Peat (S3) (**LRR K, L, R**)
- ___ Polyvalue Below Surface (S8) (**LRR K, L**)
- ___ Thin Dark Surface (S9) (**LRR K, L**)
- ___ Iron-Manganese Masses (F12) (**LRR K, L, R**)
- ___ Piedmont Floodplain Soils (F19) (**MLRA 149B**)
- ___ Mesic Spodic (TA6) (**MLRA 144A, 145, 149B**)
- ___ Red Parent Material (F21)
- ___ Very Shallow Dark Surface (F22)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** X **No** ___

Remarks:

Hydric soil indicator observed

WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: Fairfield to Congress - 115kV T-Line City/County: Fairfield Co. Sampling Date: 4/23/2019

Applicant/Owner: Avangrid - United Illuminating State: CT Sampling Point: 6

Investigator(s): DK/JK Section, Township, Range:

Landform (hillside, terrace, etc.): hillside Local relief (concave, convex, none): none Slope %: 2

Subregion (LRR or MLRA): LRR R Lat: 41.139919 Long: -73.280827 Datum: NAD 83

Soil Map Unit Name: 306 Udorthents-Urban Land Complex NWI classification: Non-wetland

Are climatic / hydrologic conditions on the site typical for this time of year? Yes x No ____ (If no, explain in Remarks.)

Are Vegetation N, Soil N, or Hydrology N significantly disturbed? Are "Normal Circumstances" present? Yes x No ____

Are Vegetation N, Soil N, or Hydrology N naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ____	No X	**Is the Sampled Area**
Hydric Soil Present?	Yes ____	No X	**within a Wetland?** **Yes** ____ **No** X
Wetland Hydrology Present?	Yes ____	No x	If yes, optional Wetland Site ID:

Remarks: (Explain alternative procedures here or in a separate report.)
No rain previous 48-hrs, cloudless sky, air temp 40s F, breeze. Upland Representative associated with Wetland C.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ Marl Deposits (B15)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ___ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ____	No x	Depth (inches): ____
Water Table Present?	Yes ____	No x	Depth (inches): ____
Saturation Present? (includes capillary fringe)	Yes ____	No x	Depth (inches): ____

Wetland Hydrology Present? **Yes** ____ **No** x

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
No indications of Wetland hydrology observed

VEGETATION – Use scientific names of plants. Sampling Point: 6

Tree Stratum (Plot size: 30)	Absolute % Cover	Dominant Species?	Indicator Status
1. *Not applicable*			
2.			
3.			
4.			
5.			
6.			
7.			
	=Total Cover		
Sapling/Shrub Stratum (Plot size: 15)			
1. *Not applicable*			
2.			
3.			
4.			
5.			
6.			
7.			
	=Total Cover		
Herb Stratum (Plot size: 5)			
1. *Galium aparine*	75	Yes	FACU
2. *Equisetum arvense*	10	No	FAC
3. *Cirsium vulgare*	5	No	FACU
4. *Stachys byzantina*	5	No	UPL
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
	95 =Total Cover		
Woody Vine Stratum (Plot size: 30)			
1. *Not applicable*			
2.			
3.			
4.			
	=Total Cover		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across All Strata: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	10	x 3 =	30
FACU species	80	x 4 =	320
UPL species	5	x 5 =	25
Column Totals:	95 (A)		375 (B)

Prevalence Index = B/A = 3.95

Hydrophytic Vegetation Indicators:

___ 1 - Rapid Test for Hydrophytic Vegetation

___ 2 - Dominance Test is >50%

___ 3 - Prevalence Index is ≤3.0[1]

___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Vegetation Strata:

Tree – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/shrub – Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vines – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? **Yes** ___ **No** X

Remarks: (Include photo numbers here or on a separate sheet.)
They hydrophytic vegetation criterion has not been met.

SOIL

Sampling Point 6

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-3	10YR 3/3	100					Loamy/Clayey	Silt loam
3-20	10YR 4/3	99	10YR 5/4	1	C	M	Loamy/Clayey	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Polyvalue Below Surface (S8) (**LRR R, MLRA 149B**)
- ___ Thin Dark Surface (S9) (**LRR R, MLRA 149B**)
- ___ High Chroma Sands (S11) (**LRR K, L)**
- ___ Loamy Mucky Mineral (F1) (**LRR K, L**)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Marl (F10) (**LRR K, L**)

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) (**LRR K, L, MLRA 149B**)
- ___ Coast Prairie Redox (A16) (**LRR K, L, R**)
- ___ 5 cm Mucky Peat or Peat (S3) (**LRR K, L, R**)
- ___ Polyvalue Below Surface (S8) (**LRR K, L**)
- ___ Thin Dark Surface (S9) (**LRR K, L**)
- ___ Iron-Manganese Masses (F12) (**LRR K, L, R**)
- ___ Piedmont Floodplain Soils (F19) (**MLRA 149B**)
- ___ Mesic Spodic (TA6) (**MLRA 144A, 145, 149B**)
- ___ Red Parent Material (F21)
- ___ Very Shallow Dark Surface (F22)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** ___ **No** X

Remarks:

The hydric soil criterion has not been met.

WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: Fairfield to Congress - 115kV T-Line City/County: Fairfield Co. Sampling Date: 4/16/2019

Applicant/Owner: Avangrid - United Illuminating State: CT Sampling Point: 7

Investigator(s): TS Section, Township, Range:

Landform (hillside, terrace, etc.): tidal flat Local relief (concave, convex, none): none Slope %: 0

Subregion (LRR or MLRA): LRR R Lat: 41.141157 Long: -73.275716 Datum: NAD 83

Soil Map Unit Name: (306) Udortents-Urban Land Complex NWI classification: E2EM5

Are climatic / hydrologic conditions on the site typical for this time of year? Yes x No (If no, explain in Remarks.)

Are Vegetation N, Soil N, or Hydrology N significantly disturbed? Are "Normal Circumstances" present? Yes x No

Are Vegetation N, Soil N, or Hydrology N naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes X	No	**Is the Sampled Area**
Hydric Soil Present?	Yes X	No	**within a Wetland?** **Yes** X **No**
Wetland Hydrology Present?	Yes X	No	If yes, optional Wetland Site ID: Wetland D

Remarks: (Explain alternative procedures here or in a separate report.)
The substrate made this area largely unsafe for sampling. The vegetation community is essentially a monocultural stand of Phragmites. Wetland/non-wetland interface is abrupt as there is a significant change in elevation. This sample point represents Coastal Wetland D.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- X Surface Water (A1)
- X High Water Table (A2)
- Saturation (A3)
- Water Marks (B1)
- Sediment Deposits (B2)
- Drift Deposits (B3)
- Algal Mat or Crust (B4)
- Iron Deposits (B5)
- x Inundation Visible on Aerial Imagery (B7)
- Sparsely Vegetated Concave Surface (B8)
- Water-Stained Leaves (B9)
- Aquatic Fauna (B13)
- Marl Deposits (B15)
- Hydrogen Sulfide Odor (C1)
- Oxidized Rhizospheres on Living Roots (C3)
- Presence of Reduced Iron (C4)
- Recent Iron Reduction in Tilled Soils (C6)
- Thin Muck Surface (C7)
- Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- Surface Soil Cracks (B6)
- Drainage Patterns (B10)
- Moss Trim Lines (B16)
- Dry-Season Water Table (C2)
- Crayfish Burrows (C8)
- Saturation Visible on Aerial Imagery (C9)
- Stunted or Stressed Plants (D1)
- Geomorphic Position (D2)
- Shallow Aquitard (D3)
- Microtopographic Relief (D4)
- X FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes x	No	Depth (inches): 4
Water Table Present?	Yes x	No	Depth (inches): 0
Saturation Present? (includes capillary fringe)	Yes x	No	Depth (inches): 0

Wetland Hydrology Present? **Yes** X **No**

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
Wetland hydrology observed; note, hydrology changes with the tides

VEGETATION – Use scientific names of plants. Sampling Point: 7

Tree Stratum (Plot size: 30)	Absolute % Cover	Dominant Species?	Indicator Status
1. *Not applicable*			
2.			
3.			
4.			
5.			
6.			
7.			
	=Total Cover		
Sapling/Shrub Stratum (Plot size: 15)			
1. *Not applicable*			
2.			
3.			
4.			
5.			
6.			
7.			
	=Total Cover		
Herb Stratum (Plot size: 5)			
1. *Phragmites australis*	100	Yes	FACW
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
	100 =Total Cover		
Woody Vine Stratum (Plot size: 30)			
1. *Not applicable*			
2.			
3.			
4.			
	=Total Cover		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across All Strata: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	100	x 2 =	200
FAC species	0	x 3 =	0
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	100 (A)		200 (B)

Prevalence Index = B/A = 2.00

Hydrophytic Vegetation Indicators:

___ 1 - Rapid Test for Hydrophytic Vegetation

X 2 - Dominance Test is >50%

X 3 - Prevalence Index is ≤3.0[1]

___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Vegetation Strata:

Tree – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/shrub – Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vines – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? **Yes** X **No** ___

Remarks: (Include photo numbers here or on a separate sheet.)
Hydrophytic community as illustrated by results of analyses

SOIL

Sampling Point: 7

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

[2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Polyvalue Below Surface (S8) (**LRR R, MLRA 149B**)
- ___ Thin Dark Surface (S9) (**LRR R, MLRA 149B**)
- ___ High Chroma Sands (S11) (**LRR K, L)**
- ___ Loamy Mucky Mineral (F1) (**LRR K, L**)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Marl (F10) (**LRR K, L**)

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) (**LRR K, L, MLRA 149B**)
- ___ Coast Prairie Redox (A16) (**LRR K, L, R**)
- ___ 5 cm Mucky Peat or Peat (S3) (**LRR K, L, R**)
- ___ Polyvalue Below Surface (S8) (**LRR K, L**)
- ___ Thin Dark Surface (S9) (**LRR K, L**)
- ___ Iron-Manganese Masses (F12) (**LRR K, L, R**)
- ___ Piedmont Floodplain Soils (F19) (**MLRA 149B**)
- ___ Mesic Spodic (TA6) (**MLRA 144A, 145, 149B**)
- ___ Red Parent Material (F21)
- ___ Very Shallow Dark Surface (F22)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** X **No** ___

Remarks:

Did not sample soils in the field due to hazardous conditions, however, given the hydrologic regime, position in the landscape, it is likely that hydric soils indicators would have been observed.

WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: Fairfield to Congress - 115kV T-Line City/County: Fairfield Co. Sampling Date: 4/16/2019

Applicant/Owner: Avangrid - United Illuminating State: CT Sampling Point: 8

Investigator(s): TS Section, Township, Range:

Landform (hillside, terrace, etc.): terrace Local relief (concave, convex, none): none Slope %: 1

Subregion (LRR or MLRA): LRR R Lat: 41.141110 Long: -73.275812 Datum: NAD 83

Soil Map Unit Name: (306) Udorthents-Urban Land Complex NWI classification: Non-wetland

Are climatic / hydrologic conditions on the site typical for this time of year? Yes x No (If no, explain in Remarks.)

Are Vegetation N, Soil N, or Hydrology N significantly disturbed? Are "Normal Circumstances" present? Yes x No

Are Vegetation N, Soil N, or Hydrology N naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes	No X	**Is the Sampled Area**
Hydric Soil Present?	Yes	No X	**within a Wetland?** **Yes** **No** X
Wetland Hydrology Present?	Yes	No X	If yes, optional Wetland Site ID:

Remarks: (Explain alternative procedures here or in a separate report.)
No rain previous 48-hrs, cloudless sky, air temp 40s F, breeze. Upland sample point associated with Wetland D, in an anthropogenic habitat.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ Marl Deposits (B15)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ___ Geomorphic Position (D2)
- ? Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes	No x	Depth (inches):
Water Table Present?	Yes	No x	Depth (inches):
Saturation Present? (includes capillary fringe)	Yes	No x	Depth (inches):

Wetland Hydrology Present? **Yes** **No** x

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
No indications of Wetland hydrology observed

VEGETATION – Use scientific names of plants. Sampling Point: 8

Tree Stratum (Plot size: 30)	Absolute % Cover	Dominant Species?	Indicator Status
1. *Not applicable*			
2.			
3.			
4.			
5.			
6.			
7.			
	=Total Cover		
Sapling/Shrub Stratum (Plot size: 15)			
1. *Not applicable*			
2.			
3.			
4.			
5.			
6.			
7.			
	=Total Cover		
Herb Stratum (Plot size: 5)			
1. *Not applicable*			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
	=Total Cover		
Woody Vine Stratum (Plot size: 30)			
1. *Not applicable*			
2.			
3.			
4.			
	=Total Cover		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: _____ (A)

Total Number of Dominant Species Across All Strata: _____ (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: _____ (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species _____	x 1 = _____
FACW species _____	x 2 = _____
FAC species _____	x 3 = _____
FACU species _____	x 4 = _____
UPL species _____	x 5 = _____
Column Totals: _____ (A)	_____ (B)

Prevalence Index = B/A = _____

Hydrophytic Vegetation Indicators:

___ 1 - Rapid Test for Hydrophytic Vegetation

___ 2 - Dominance Test is >50%

___ 3 - Prevalence Index is ≤3.0[1]

___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Vegetation Strata:

Tree – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/shrub – Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vines – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? **Yes** ___ **No** ___

Remarks: (Include photo numbers here or on a separate sheet.)
Some unidentifiable herbaceous specimens (due to time of year/lack of diagnostic structures) are throughout this area. Unable to identify species.

SOIL

Sampling Point 8

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-2	10YR 2/2	100					Loamy/Clayey	repeated refusal at 2"

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Polyvalue Below Surface (S8) (**LRR R, MLRA 149B**)
- ___ Thin Dark Surface (S9) (**LRR R, MLRA 149B**)
- ___ High Chroma Sands (S11) (**LRR K, L)**
- ___ Loamy Mucky Mineral (F1) (**LRR K, L**)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Marl (F10) (**LRR K, L**)

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) (**LRR K, L, MLRA 149B**)
- ___ Coast Prairie Redox (A16) (**LRR K, L, R**)
- ___ 5 cm Mucky Peat or Peat (S3) (**LRR K, L, R**)
- ___ Polyvalue Below Surface (S8) (**LRR K, L**)
- ___ Thin Dark Surface (S9) (**LRR K, L**)
- ___ Iron-Manganese Masses (F12) (**LRR K, L, R**)
- ___ Piedmont Floodplain Soils (F19) (**MLRA 149B**)
- ___ Mesic Spodic (TA6) (**MLRA 144A, 145, 149B**)
- ___ Red Parent Material (F21)
- ___ Very Shallow Dark Surface (F22)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: Rock

Depth (inches): 2

Hydric Soil Present? **Yes** ___ **No** X

Remarks:

This "soil" was very rocky (closer to rail road bed); experienced rock refusal at a depth of 2" at multiple locations. Unclear if this is within our area of investigation (could be too far south)

WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: Fairfield to Congress - 115kV T-Line City/County: Fairfield Co. Sampling Date: 4/17/2019

Applicant/Owner: Avangrid - United Illuminating State: CT Sampling Point: 9

Investigator(s): TS Section, Township, Range:

Landform (hillside, terrace, etc.): tidal flat Local relief (concave, convex, none): none Slope %: 0

Subregion (LRR or MLRA): LRR R Lat: 41.14887 Long: -73.24948 Datum: NAD 83

Soil Map Unit Name: NWI classification: PEM

Are climatic / hydrologic conditions on the site typical for this time of year? Yes x No (If no, explain in Remarks.)

Are Vegetation N, Soil N, or Hydrology N significantly disturbed? Are "Normal Circumstances" present? Yes x No

Are Vegetation N, Soil N, or Hydrology N naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes X	No	**Is the Sampled Area**
Hydric Soil Present?	Yes X	No	**within a Wetland?** **Yes** X **No**
Wetland Hydrology Present?	Yes X	No	If yes, optional Wetland Site ID: Wetland E

Remarks: (Explain alternative procedures here or in a separate report.)
The change between wetland and non-wetland habitats is conspicuous in the field due to an abprupt change in elevation. This sampling point was taken within a PEM weltand habitat. While some forested habitat was present, the percent cover of the forested statum did not equal or exceed 30% coverage. This sample point represents Wetland E.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- X Surface Water (A1)
- X High Water Table (A2)
- Saturation (A3)
- Water Marks (B1)
- Sediment Deposits (B2)
- Drift Deposits (B3)
- Algal Mat or Crust (B4)
- Iron Deposits (B5)
- Inundation Visible on Aerial Imagery (B7)
- Sparsely Vegetated Concave Surface (B8)
- Water-Stained Leaves (B9)
- Aquatic Fauna (B13)
- Marl Deposits (B15)
- X Hydrogen Sulfide Odor (C1)
- Oxidized Rhizospheres on Living Roots (C3)
- Presence of Reduced Iron (C4)
- Recent Iron Reduction in Tilled Soils (C6)
- Thin Muck Surface (C7)
- Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- Surface Soil Cracks (B6)
- Drainage Patterns (B10)
- Moss Trim Lines (B16)
- Dry-Season Water Table (C2)
- Crayfish Burrows (C8)
- Saturation Visible on Aerial Imagery (C9)
- Stunted or Stressed Plants (D1)
- Geomorphic Position (D2)
- Shallow Aquitard (D3)
- Microtopographic Relief (D4)
- X FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes x	No	Depth (inches): 2
Water Table Present?	Yes x	No	Depth (inches): 0
Saturation Present? (includes capillary fringe)	Yes x	No	Depth (inches): 0

Wetland Hydrology Present? **Yes** X **No**

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
Conducted additional SP in an area that was not inundated; in that instance, the soils are saturated at a depth of 2 inches. Wetland hydrology indicators observed

VEGETATION – Use scientific names of plants. Sampling Point: 9

Tree Stratum (Plot size: 30)	Absolute % Cover	Dominant Species?	Indicator Status
1. *Acer rubrum*	15	Yes	FAC
2.			
3.			
4.			
5.			
6.			
7.			
	15	=Total Cover	
Sapling/Shrub Stratum (Plot size: 15)			
1. *Not applicable*			
2.			
3.			
4.			
5.			
6.			
7.			
		=Total Cover	
Herb Stratum (Plot size: 5)			
1. *Phragmites australis*	97	Yes	FACW
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
	97	=Total Cover	
Woody Vine Stratum (Plot size: 30)			
1. *Not applicable*			
2.			
3.			
4.			
		=Total Cover	

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)

Total Number of Dominant Species Across All Strata: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	97	x 2 =	194
FAC species	15	x 3 =	45
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	112 (A)		239 (B)

Prevalence Index = B/A = 2.13

Hydrophytic Vegetation Indicators:

___ 1 - Rapid Test for Hydrophytic Vegetation

X 2 - Dominance Test is >50%

X 3 - Prevalence Index is ≤3.0[1]

___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Vegetation Strata:

Tree – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/shrub – Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vines – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? **Yes** X **No** ___

Remarks: (Include photo numbers here or on a separate sheet.)
Hydrophytic community as illustrated by results of analyses

SOIL

Sampling Point 9

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-16	10YR 2/1	98	10YR 4/6	2	C	M	Mucky Loam/Clay	fibric

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- X Histic Epipedon (A2)
- ___ Black Histic (A3)
- X Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Polyvalue Below Surface (S8) (**LRR R, MLRA 149B**)
- ___ Thin Dark Surface (S9) (**LRR R, MLRA 149B**)
- ___ High Chroma Sands (S11) (**LRR K, L)**
- ___ Loamy Mucky Mineral (F1) (**LRR K, L**)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- X Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Marl (F10) (**LRR K, L**)

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) (**LRR K, L, MLRA 149B**)
- ___ Coast Prairie Redox (A16) (**LRR K, L, R**)
- ___ 5 cm Mucky Peat or Peat (S3) (**LRR K, L, R**)
- ___ Polyvalue Below Surface (S8) (**LRR K, L**)
- ___ Thin Dark Surface (S9) (**LRR K, L**)
- ___ Iron-Manganese Masses (F12) (**LRR K, L, R**)
- ___ Piedmont Floodplain Soils (F19) (**MLRA 149B**)
- ___ Mesic Spodic (TA6) (**MLRA 144A, 145, 149B**)
- ___ Red Parent Material (F21)
- ___ Very Shallow Dark Surface (F22)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** ____ **No** ____

Remarks:

Hydric soils indicators observed

WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: Fairfield to Congress - 115kV T-Line City/County: Fairfield Co. Sampling Date: 4/18/2019

Applicant/Owner: Avangrid - United Illuminating State: CT Sampling Point: 10

Investigator(s): TS Section, Township, Range:

Landform (hillside, terrace, etc.): terrace Local relief (concave, convex, none): none Slope %: 0

Subregion (LRR or MLRA): LRR R Lat: 41.14888 Long: -73.24934 Datum: NAD 83

Soil Map Unit Name: Udorthents-Urban Land Complex NWI classification: Non-wetland

Are climatic / hydrologic conditions on the site typical for this time of year? Yes x No (If no, explain in Remarks.)

Are Vegetation N, Soil N, or Hydrology N significantly disturbed? Are "Normal Circumstances" present? Yes x No

Are Vegetation N, Soil N, or Hydrology N naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes	No X	**Is the Sampled Area**
Hydric Soil Present?	Yes	No X	**within a Wetland?** **Yes** **No** X
Wetland Hydrology Present?	Yes	No x	If yes, optional Wetland Site ID:

Remarks: (Explain alternative procedures here or in a separate report.)
The change between wetland and non-wetland habitats is conspicuous in the field due to an abprupt change in elevation. This sample point is located in an upland habitat and is on a terrace between Wetland E and the balllast toe slope.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- Surface Water (A1)
- High Water Table (A2)
- Saturation (A3)
- Water Marks (B1)
- Sediment Deposits (B2)
- Drift Deposits (B3)
- Algal Mat or Crust (B4)
- Iron Deposits (B5)
- Inundation Visible on Aerial Imagery (B7)
- Sparsely Vegetated Concave Surface (B8)
- Water-Stained Leaves (B9)
- Aquatic Fauna (B13)
- Marl Deposits (B15)
- Hydrogen Sulfide Odor (C1)
- Oxidized Rhizospheres on Living Roots (C3)
- Presence of Reduced Iron (C4)
- Recent Iron Reduction in Tilled Soils (C6)
- Thin Muck Surface (C7)
- Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- Surface Soil Cracks (B6)
- Drainage Patterns (B10)
- Moss Trim Lines (B16)
- Dry-Season Water Table (C2)
- Crayfish Burrows (C8)
- Saturation Visible on Aerial Imagery (C9)
- Stunted or Stressed Plants (D1)
- Geomorphic Position (D2)
- ? Shallow Aquitard (D3)
- Microtopographic Relief (D4)
- FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes	No	Depth (inches):
Water Table Present?	Yes	No	Depth (inches):
Saturation Present? (includes capillary fringe)	Yes	No	Depth (inches):

Wetland Hydrology Present? **Yes** **No** x

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
No signs of wetland hydrology observed

VEGETATION – Use scientific names of plants. Sampling Point: 10

Tree Stratum (Plot size: 30)	Absolute % Cover	Dominant Species?	Indicator Status
1. *Not applicable*			
2.			
3.			
4.			
5.			
6.			
7.			
	=Total Cover		
Sapling/Shrub Stratum (Plot size: 15)			
1. *Thuja occidentalis*	10	Yes	FACW
2. *Rosa multiflora*	10	Yes	FACU
3. *Lonicera tatarica*	10	Yes	FACU
4.			
5.			
6.			
7.			
	30 =Total Cover		
Herb Stratum (Plot size: 5)			
1. *Tussilago farfara*	2	No	FACU
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
	2 =Total Cover		
Woody Vine Stratum (Plot size: 30)			
1. *Not applicable*			
2.			
3.			
4.			
	=Total Cover		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across All Strata: 3 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 33.3% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	10	x 2 =	20
FAC species	0	x 3 =	0
FACU species	22	x 4 =	88
UPL species	0	x 5 =	0
Column Totals:	32 (A)		108 (B)

Prevalence Index = B/A = 3.38

Hydrophytic Vegetation Indicators:

___ 1 - Rapid Test for Hydrophytic Vegetation

___ 2 - Dominance Test is >50%

___ 3 - Prevalence Index is ≤3.0[1]

___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Vegetation Strata:

Tree – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/shrub – Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vines – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? **Yes** ___ **No** X

Remarks: (Include photo numbers here or on a separate sheet.)
Not a Hydrophytic community as illustrated by results of analyses

SOIL

Sampling Point: 10

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-3	10YR 4/3	100						Silt loam; gravelly

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

[2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Polyvalue Below Surface (S8) (**LRR R, MLRA 149B**)
- ___ Thin Dark Surface (S9) (**LRR R, MLRA 149B**)
- ___ High Chroma Sands (S11) (**LRR K, L)**
- ___ Loamy Mucky Mineral (F1) (**LRR K, L**)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Marl (F10) (**LRR K, L**)

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) (**LRR K, L, MLRA 149B**)
- ___ Coast Prairie Redox (A16) (**LRR K, L, R**)
- ___ 5 cm Mucky Peat or Peat (S3) (**LRR K, L, R**)
- ___ Polyvalue Below Surface (S8) (**LRR K, L**)
- ___ Thin Dark Surface (S9) (**LRR K, L**)
- ___ Iron-Manganese Masses (F12) (**LRR K, L, R**)
- ___ Piedmont Floodplain Soils (F19) (**MLRA 149B**)
- ___ Mesic Spodic (TA6) (**MLRA 144A, 145, 149B**)
- ___ Red Parent Material (F21)
- ___ Very Shallow Dark Surface (F22)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: Rock

Depth (inches): 3

Hydric Soil Present? **Yes** ___ **No** X

Remarks:

No hydric soils indicators observed; due to the location, essentially amongst the ballast of the rail road bed, this sample point was very gravelly and rock refusal was encountered at a depth of 3 inches

WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: Fairfield to Congress - 115kV T-Line City/County: Fairfield Co. Sampling Date: 4/5/2022

Applicant/Owner: Avangrid - United Illuminating State: CT Sampling Point: 11

Investigator(s): SMS Section, Township, Range:

Landform (hillside, terrace, etc.): Toe Slope Local relief (concave, convex, none):) Concave Slope %: 1

Subregion (LRR or MLRA): LRR R Lat: 41.148705 Long: -73.248897 Datum: NAD 83

Soil Map Unit Name: 307 - Urban Land NWI classification: PEM

Are climatic / hydrologic conditions on the site typical for this time of year? Yes x No (If no, explain in Remarks.)

Are Vegetation N, Soil N, or Hydrology N significantly disturbed? Are "Normal Circumstances" present? Yes x No

Are Vegetation N, Soil N, or Hydrology N naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes X	No	**Is the Sampled Area**
Hydric Soil Present?	Yes X	No	**within a Wetland?** **Yes** X **No**
Wetland Hydrology Present?	Yes X	No	If yes, optional Wetland Site ID: Wetland F

Remarks: (Explain alternative procedures here or in a separate report.)
The change between wetland and non-wetland habitats is conspicuous in the field due to the difference in elevation between this drainage area and the surrounding uplands. This sampling point was taken within a PEM weltand habitat. While some shrubby habitat was present, the percent cover of the shrubby statum did not equal or exceed 20% coverage. This sample point represents Wetland F.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- X Surface Water (A1)
- X High Water Table (A2)
- Saturation (A3)
- Water Marks (B1)
- Sediment Deposits (B2)
- Drift Deposits (B3)
- Algal Mat or Crust (B4)
- Iron Deposits (B5)
- Inundation Visible on Aerial Imagery (B7)
- Sparsely Vegetated Concave Surface (B8)
- Water-Stained Leaves (B9)
- Aquatic Fauna (B13)
- Marl Deposits (B15)
- X Hydrogen Sulfide Odor (C1)
- Oxidized Rhizospheres on Living Roots (C3)
- Presence of Reduced Iron (C4)
- Recent Iron Reduction in Tilled Soils (C6)
- Thin Muck Surface (C7)
- Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- Surface Soil Cracks (B6)
- Drainage Patterns (B10)
- Moss Trim Lines (B16)
- Dry-Season Water Table (C2)
- Crayfish Burrows (C8)
- Saturation Visible on Aerial Imagery (C9)
- Stunted or Stressed Plants (D1)
- Geomorphic Position (D2)
- Shallow Aquitard (D3)
- Microtopographic Relief (D4)
- FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes x	No	Depth (inches): 1
Water Table Present?	Yes x	No	Depth (inches): 0
Saturation Present? (includes capillary fringe)	Yes x	No	Depth (inches): 0

Wetland Hydrology Present? **Yes** X **No**

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
Conducted additional SP in an area that was not inundated; in that instance, the soils are saturated at a depth of 4 inches. Wetland hydrology indicators observed

VEGETATION – Use scientific names of plants. Sampling Point: 11

Tree Stratum (Plot size: 30)	Absolute % Cover	Dominant Species?	Indicator Status
1. *Not applicable*			
2.			
3.			
4.			
5.			
6.			
7.			
	=Total Cover		
Sapling/Shrub Stratum (Plot size: 15)			
1. *Rosa multiflora*	5	Yes	FACU
2.			
3.			
4.			
5.			
6.			
7.			
	5 =Total Cover		
Herb Stratum (Plot size: 5)			
1. *Phragmites australis*	97	Yes	FACW
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
	97 =Total Cover		
Woody Vine Stratum (Plot size: 30)			
1. *Not applicable*			
2.			
3.			
4.			
	=Total Cover		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across All Strata: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 50.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	97	x 2 =	194
FAC species	0	x 3 =	0
FACU species	5	x 4 =	20
UPL species	0	x 5 =	0
Column Totals:	102 (A)		214 (B)

Prevalence Index = B/A = 2.10

Hydrophytic Vegetation Indicators:

___ 1 - Rapid Test for Hydrophytic Vegetation

___ 2 - Dominance Test is >50%

X 3 - Prevalence Index is ≤3.0[1]

___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Vegetation Strata:

Tree – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/shrub – Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vines – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? **Yes** X **No** ___

Remarks: (Include photo numbers here or on a separate sheet.)
Hydrophytic community as illustrated by results of analyses

SOIL

Sampling Point 11

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-4	10YR 3/2	100						Mucky Silt Loam
4-19	10YR 5/2	90	10YR 5/6	10	C	M		Clay Loam

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Polyvalue Below Surface (S8) (**LRR R, MLRA 149B**)
- ___ Thin Dark Surface (S9) (**LRR R, MLRA 149B**)
- ___ High Chroma Sands (S11) (**LRR K, L)**
- ___ Loamy Mucky Mineral (F1) (**LRR K, L**)
- ___ Loamy Gleyed Matrix (F2)
- X Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Marl (F10) (**LRR K, L**)

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) (**LRR K, L, MLRA 149B**)
- ___ Coast Prairie Redox (A16) (**LRR K, L, R**)
- ___ 5 cm Mucky Peat or Peat (S3) (**LRR K, L, R**)
- ___ Polyvalue Below Surface (S8) (**LRR K, L**)
- ___ Thin Dark Surface (S9) (**LRR K, L**)
- ___ Iron-Manganese Masses (F12) (**LRR K, L, R**)
- ___ Piedmont Floodplain Soils (F19) (**MLRA 149B**)
- ___ Mesic Spodic (TA6) (**MLRA 144A, 145, 149B**)
- ___ Red Parent Material (F21)
- ___ Very Shallow Dark Surface (F22)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** ____ **No** ____

Remarks:

Hydric soils indicators observed

WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: Fairfield to Congress - 115kV T-Line City/County: Fairfield Co. Sampling Date: 4/5/2022

Applicant/Owner: Avangrid - United Illuminating State: CT Sampling Point: 12

Investigator(s): SMS Section, Township, Range:

Landform (hillside, terrace, etc.): Hillslope Local relief (concave, convex, none): Convex Slope %: 3

Subregion (LRR or MLRA): LRR R Lat: 41.148914 Long: -73.248623 Datum: NAD 83

Soil Map Unit Name: 307 - Urban Land NWI classification: Non-wetland

Are climatic / hydrologic conditions on the site typical for this time of year? Yes x No (If no, explain in Remarks.)

Are Vegetation N, Soil N, or Hydrology N significantly disturbed? Are "Normal Circumstances" present? Yes x No

Are Vegetation N, Soil N, or Hydrology N naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes	No X	**Is the Sampled Area**
Hydric Soil Present?	Yes	No X	**within a Wetland?** **Yes** **No** X
Wetland Hydrology Present?	Yes	No x	If yes, optional Wetland Site ID:

Remarks: (Explain alternative procedures here or in a separate report.)
The change between wetland and non-wetland habitats is conspicuous in the field due to an abprupt change in elevation. This sample point is located in an upland habitat and is on a hillslope between Wetland F and the paved access road.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ Marl Deposits (B15)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ___ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes	No	Depth (inches):
Water Table Present?	Yes	No	Depth (inches):
Saturation Present? (includes capillary fringe)	Yes	No	Depth (inches):

Wetland Hydrology Present? **Yes** **No** x

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
No signs of wetland hydrology observed

VEGETATION – Use scientific names of plants. Sampling Point: 12

Tree Stratum (Plot size: 30)	Absolute % Cover	Dominant Species?	Indicator Status
1. *Not applicable*			
2.			
3.			
4.			
5.			
6.			
7.			
	=Total Cover		
Sapling/Shrub Stratum (Plot size: 15)			
1. *Lonicera tatarica*	10	Yes	FACU
2. *Rosa multiflora*	10	Yes	FACU
3.			
4.			
5.			
6.			
7.			
	20 =Total Cover		
Herb Stratum (Plot size: 5)			
1. *Tussilago farfara*	30	Yes	FACU
2. *Verbascum thapsus*	5	No	UPL
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
	35 =Total Cover		
Woody Vine Stratum (Plot size: 30)			
1. *Lonicera japonica*	30	Yes	FACU
2. *Celastrus orbiculatus*	20	Yes	UPL
3.			
4.			
	50 =Total Cover		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across All Strata: 5 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	0	x 3 =	0
FACU species	80	x 4 =	320
UPL species	25	x 5 =	125
Column Totals:	105 (A)		445 (B)

Prevalence Index = B/A = 4.24

Hydrophytic Vegetation Indicators:

___ 1 - Rapid Test for Hydrophytic Vegetation

___ 2 - Dominance Test is >50%

___ 3 - Prevalence Index is ≤3.0[1]

___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Vegetation Strata:

Tree – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/shrub – Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vines – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? **Yes** ___ **No** X

Remarks: (Include photo numbers here or on a separate sheet.)
Not a Hydrophytic community as illustrated by results of analyses

SOIL

Sampling Point: 12

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-3	10YR 4/3	100						Silt loam; gravelly
3-18	10YR 5/3	100						Silt loam; gravelly

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

[2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Polyvalue Below Surface (S8) (**LRR R, MLRA 149B**)
- ___ Thin Dark Surface (S9) (**LRR R, MLRA 149B**)
- ___ High Chroma Sands (S11) (**LRR K, L)**
- ___ Loamy Mucky Mineral (F1) (**LRR K, L**)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Marl (F10) (**LRR K, L**)

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) (**LRR K, L, MLRA 149B**)
- ___ Coast Prairie Redox (A16) (**LRR K, L, R**)
- ___ 5 cm Mucky Peat or Peat (S3) (**LRR K, L, R**)
- ___ Polyvalue Below Surface (S8) (**LRR K, L**)
- ___ Thin Dark Surface (S9) (**LRR K, L**)
- ___ Iron-Manganese Masses (F12) (**LRR K, L, R**)
- ___ Piedmont Floodplain Soils (F19) (**MLRA 149B**)
- ___ Mesic Spodic (TA6) (**MLRA 144A, 145, 149B**)
- ___ Red Parent Material (F21)
- ___ Very Shallow Dark Surface (F22)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** ___ **No** X

Remarks:

No hydric soils indicators observed.

WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: Fairfield to Congress - 115kV T-Line City/County: Fairfield Co. Sampling Date: 5/3/2019

Applicant/Owner: Avangrid - United Illuminating State: CT Sampling Point: 13

Investigator(s): TS Section, Township, Range:

Landform (hillside, terrace, etc.): terrace, floodplain Local relief (concave, convex, none): concave Slope %: 0

Subregion (LRR or MLRA): LRR R Lat: 41.15460 Long: -73.24330 Datum: NAD 83

Soil Map Unit Name: (306) Udorthents-Urban Land Complex NWI classification: PEM

Are climatic / hydrologic conditions on the site typical for this time of year? Yes x No ____ (If no, explain in Remarks.)

Are Vegetation N, Soil N, or Hydrology N significantly disturbed? Are "Normal Circumstances" present? Yes x No ____

Are Vegetation N, Soil N, or Hydrology N naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes X	No ____	**Is the Sampled Area**
Hydric Soil Present?	Yes x	No ____	**within a Wetland?** **Yes** X **No** ____
Wetland Hydrology Present?	Yes X	No ____	If yes, optional Wetland Site ID: Wetland G

Remarks: (Explain alternative procedures here or in a separate report.)
This was a field check as initially the wetland appeared to be beyond the rail road ROW. This sample point represents the PEM portion of Wetland G. This area is very dense Phragmites

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- X Surface Water (A1)
- ___ High Water Table (A2)
- x Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ Marl Deposits (B15)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- X Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- x Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- X FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes X	No ____	Depth (inches): 2
Water Table Present?	Yes X	No ____	Depth (inches): 0
Saturation Present? (includes capillary fringe)	Yes X	No ____	Depth (inches): 10

Wetland Hydrology Present? **Yes** X **No** ____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
Wetland hydrology indicators observed. Inundated pockets throughout this wetland area

VEGETATION – Use scientific names of plants. Sampling Point: 13

Tree Stratum (Plot size: 30)	Absolute % Cover	Dominant Species?	Indicator Status
1. *Not applicable*			
2.			
3.			
4.			
5.			
6.			
7.			
	=Total Cover		
Sapling/Shrub Stratum (Plot size: 15)			
1. *Not applicable*			
2.			
3.			
4.			
5.			
6.			
7.			
	=Total Cover		
Herb Stratum (Plot size: 5)			
1. *Phragmites australis*	98	Yes	FACW
2. *Impatiens capensis*	25	No	FACW
3. *Lonicera japonica*	5	No	FACU
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
	128 =Total Cover		
Woody Vine Stratum (Plot size: 30)			
1. *Not applicable*			
2.			
3.			
4.			
	=Total Cover		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across All Strata: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	123	x 2 =	246
FAC species	0	x 3 =	0
FACU species	5	x 4 =	20
UPL species	0	x 5 =	0
Column Totals:	128 (A)		266 (B)

Prevalence Index = B/A = 2.08

Hydrophytic Vegetation Indicators:

___ 1 - Rapid Test for Hydrophytic Vegetation

X 2 - Dominance Test is >50%

X 3 - Prevalence Index is ≤3.0[1]

___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Vegetation Strata:

Tree – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/shrub – Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vines – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? **Yes** X **No** ___

Remarks: (Include photo numbers here or on a separate sheet.)
A Hydrophytic community as illustrated by results of analyses. Hydrophytic vegetation criteria has been met.

SOIL

Sampling Point: 13

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-16	10YR 4/1	67	5YR 4/6	33	RM	M	Mucky Loam/Clay	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

[2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Polyvalue Below Surface (S8) (**LRR R, MLRA 149B**)
- ___ Thin Dark Surface (S9) (**LRR R, MLRA 149B**)
- ___ High Chroma Sands (S11) (**LRR K, L)**
- x Loamy Mucky Mineral (F1) (**LRR K, L**)
- ___ Loamy Gleyed Matrix (F2)
- x Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Marl (F10) (**LRR K, L**)

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) (**LRR K, L, MLRA 149B**)
- ___ Coast Prairie Redox (A16) (**LRR K, L, R**)
- ___ 5 cm Mucky Peat or Peat (S3) (**LRR K, L, R**)
- ___ Polyvalue Below Surface (S8) (**LRR K, L**)
- ___ Thin Dark Surface (S9) (**LRR K, L**)
- ___ Iron-Manganese Masses (F12) (**LRR K, L, R**)
- ___ Piedmont Floodplain Soils (F19) (**MLRA 149B**)
- ___ Mesic Spodic (TA6) (**MLRA 144A, 145, 149B**)
- ___ Red Parent Material (F21)
- ___ Very Shallow Dark Surface (F22)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** x **No** ___

Remarks:

Hydric soil indicators have been met.

WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: Fairfield to Congress - 115kV T-Line City/County: Fairfield Co. Sampling Date: 4/19/2019

Applicant/Owner: Avangrid - United Illuminating State: CT Sampling Point: 15

Investigator(s): TS Section, Township, Range:

Landform (hillside, terrace, etc.): depression Local relief (concave, convex, none): concave Slope %: 0

Subregion (LRR or MLRA): LRR R Lat: 41.14888 Long: -73.24934 Datum: NAD 83

Soil Map Unit Name: (306) Udorthents-Urban Land Complex NWI classification: PEM/PSS

Are climatic / hydrologic conditions on the site typical for this time of year? Yes x No ____ (If no, explain in Remarks.)

Are Vegetation N, Soil N, or Hydrology N significantly disturbed? Are "Normal Circumstances" present? Yes x No ____

Are Vegetation N, Soil N, or Hydrology N naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes X	No ____	**Is the Sampled Area**
Hydric Soil Present?	Yes x	No ____	**within a Wetland?** **Yes** x **No** ____
Wetland Hydrology Present?	Yes X	No ____	If yes, optional Wetland Site ID: Wetland G

Remarks: (Explain alternative procedures here or in a separate report.)
Depressional area, located north of the railroad tracks, within the railroad corridor. This wetland continues outside of the corridor to the north. This sample point represents the scrub-shrub portion of Wetland G.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- X Surface Water (A1)
- X High Water Table (A2)
- X Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ Marl Deposits (B15)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- x Geomorphic Position (D2)
- X Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- X FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes X	No ____	Depth (inches): 4
Water Table Present?	Yes X	No ____	Depth (inches): 0
Saturation Present? (includes capillary fringe)	Yes X	No ____	Depth (inches): 0

Wetland Hydrology Present? **Yes** X **No** ____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
Wetland hydrology indicators observed

VEGETATION – Use scientific names of plants. Sampling Point: 15

Tree Stratum (Plot size: 30)	Absolute % Cover	Dominant Species?	Indicator Status
1. *Not applicable*			
2.			
3.			
4.			
5.			
6.			
7.			
	=Total Cover		
Sapling/Shrub Stratum (Plot size: 15)			
1. *Alnus serrulata*	33	Yes	OBL
2.			
3.			
4.			
5.			
6.			
7.			
	33 =Total Cover		
Herb Stratum (Plot size: 5)			
1. *Typha latifolia*	15	Yes	OBL
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
	15 =Total Cover		
Woody Vine Stratum (Plot size: 30)			
1. *Not applicable*			
2.			
3.			
4.			
	=Total Cover		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)

Total Number of Dominant Species Across All Strata: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	48	x 1 =	48
FACW species	0	x 2 =	0
FAC species	0	x 3 =	0
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	48 (A)		48 (B)

Prevalence Index = B/A = 1.00

Hydrophytic Vegetation Indicators:

___ 1 - Rapid Test for Hydrophytic Vegetation

X 2 - Dominance Test is >50%

X 3 - Prevalence Index is ≤3.0[1]

___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Vegetation Strata:

Tree – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/shrub – Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vines – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? **Yes** X **No** ___

Remarks: (Include photo numbers here or on a separate sheet.)
A Hydrophytic community as illustrated by results of analyses

SOIL

Sampling Point: 15

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0-6	10YR 4/1	97	10YR 4/6	3	C	M	Loamy/Clayey	Silt loam; gravelly

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

[2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Polyvalue Below Surface (S8) (**LRR R, MLRA 149B**)
- ___ Thin Dark Surface (S9) (**LRR R, MLRA 149B**)
- ___ High Chroma Sands (S11) (**LRR K, L)**
- ___ Loamy Mucky Mineral (F1) (**LRR K, L**)
- ___ Loamy Gleyed Matrix (F2)
- x Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Marl (F10) (**LRR K, L**)

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) (**LRR K, L, MLRA 149B**)
- ? Coast Prairie Redox (A16) (**LRR K, L, R**)
- ___ 5 cm Mucky Peat or Peat (S3) (**LRR K, L, R**)
- ___ Polyvalue Below Surface (S8) (**LRR K, L**)
- ___ Thin Dark Surface (S9) (**LRR K, L**)
- ___ Iron-Manganese Masses (F12) (**LRR K, L, R**)
- ___ Piedmont Floodplain Soils (F19) (**MLRA 149B**)
- ___ Mesic Spodic (TA6) (**MLRA 144A, 145, 149B**)
- ___ Red Parent Material (F21)
- ___ Very Shallow Dark Surface (F22)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: Rock

Depth (inches): 6

Hydric Soil Present? **Yes** x **No** ___

Remarks:

Note rock refusal at depth of 6 inches. However, hydric soil indicator has been met.

WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: Fairfield to Congress - 115kV T-Line City/County: Fairfield Co. Sampling Date: 4/19/2019

Applicant/Owner: Avangrid - United Illuminating State: CT Sampling Point: 16

Investigator(s): TS Section, Township, Range: .

Landform (hillside, terrace, etc.): slight slope Local relief (concave, convex, none): concave Slope %: 2

Subregion (LRR or MLRA): LRR R Lat: 41.15548 Long: -73.24193 Datum: NAD 83

Soil Map Unit Name: (306) Udorthents-Urban Land Complex NWI classification: Non-wetland

Are climatic / hydrologic conditions on the site typical for this time of year? Yes x No ____ (If no, explain in Remarks.)

Are Vegetation N , Soil N , or Hydrology N significantly disturbed? Are "Normal Circumstances" present? Yes x No ____

Are Vegetation N , Soil N , or Hydrology N naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ____	No x	**Is the Sampled Area**
Hydric Soil Present?	Yes ____	No X	**within a Wetland?** **Yes** ____ **No** X
Wetland Hydrology Present?	Yes ____	No x	If yes, optional Wetland Site ID: ____

Remarks: (Explain alternative procedures here or in a separate report.)
A non-wetland sample point, upslope of the boundary of Wetland G. This SP is within the rail road ROW. This area is not recently disturbed, though the soils don't appear to be native. In this instance, hydrology and vegetation will be the diagnostic traits.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ Marl Deposits (B15)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ___ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ____	No x	Depth (inches): ____
Water Table Present?	Yes ____	No x	Depth (inches): ____
Saturation Present? (includes capillary fringe)	Yes ____	No x	Depth (inches): ____

Wetland Hydrology Present? **Yes** ____ **No** x

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
No wetland hydrology indicators observed

VEGETATION – Use scientific names of plants. Sampling Point: 16

Tree Stratum (Plot size: 30)	Absolute % Cover	Dominant Species?	Indicator Status
1. *Not applicable*			
2.			
3.			
4.			
5.			
6.			
7.			
	=Total Cover		
Sapling/Shrub Stratum (Plot size: 15)			
1. *Rosa multiflora*	10	Yes	FACU
2. *Lonicera tatarica*	5	Yes	FACU
3.			
4.			
5.			
6.			
7.			
	15 =Total Cover		
Herb Stratum (Plot size: 5)			
1. *Galium aparine*	8	Yes	FACU
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
	8 =Total Cover		
Woody Vine Stratum (Plot size: 30)			
1. *Not applicable*			
2.			
3.			
4.			
	=Total Cover		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across All Strata: 3 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	0	x 3 =	0
FACU species	23	x 4 =	92
UPL species	0	x 5 =	0
Column Totals:	23 (A)		92 (B)

Prevalence Index = B/A = 4.00

Hydrophytic Vegetation Indicators:

___ 1 - Rapid Test for Hydrophytic Vegetation

___ 2 - Dominance Test is >50%

___ 3 - Prevalence Index is ≤3.0[1]

___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Vegetation Strata:

Tree – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/shrub – Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vines – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? **Yes** ___ **No** x

Remarks: (Include photo numbers here or on a separate sheet.)
No a Hydrophytic community as illustrated by results of analyses

SOIL

Sampling Point 16

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-6	10YR 2/1	100						Silt loam; gravelly

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

[2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Polyvalue Below Surface (S8) (**LRR R, MLRA 149B**)
- ___ Thin Dark Surface (S9) (**LRR R, MLRA 149B**)
- ___ High Chroma Sands (S11) (**LRR K, L)**
- ___ Loamy Mucky Mineral (F1) (**LRR K, L**)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Marl (F10) (**LRR K, L**)

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) (**LRR K, L, MLRA 149B**)
- ___ Coast Prairie Redox (A16) (**LRR K, L, R**)
- ___ 5 cm Mucky Peat or Peat (S3) (**LRR K, L, R**)
- ___ Polyvalue Below Surface (S8) (**LRR K, L**)
- ___ Thin Dark Surface (S9) (**LRR K, L**)
- ___ Iron-Manganese Masses (F12) (**LRR K, L, R**)
- ___ Piedmont Floodplain Soils (F19) (**MLRA 149B**)
- ___ Mesic Spodic (TA6) (**MLRA 144A, 145, 149B**)
- ___ Red Parent Material (F21)
- ___ Very Shallow Dark Surface (F22)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** ___ **No** X

Remarks:

Note rock refusal at depth of 6 inches; soils don't appear to be in-situ. No hydric soil indicators have been met.

WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: Fairfield to Congress - 115kV T-Line City/County: Fairfield Co. Sampling Date: 4/5/2022

Applicant/Owner: Avangrid - United Illuminating State: CT Sampling Point: 17

Investigator(s): SMS Section, Township, Range:

Landform (hillside, terrace, etc.): Toe Slope Local relief (concave, convex, none):) Concave Slope %: 1

Subregion (LRR or MLRA): LRR R Lat: 41.1576 Long: -73.236657 Datum: NAD 83

Soil Map Unit Name: 308 - Udorthents, smoothed NWI classification: PEM

Are climatic / hydrologic conditions on the site typical for this time of year? Yes x No (If no, explain in Remarks.)

Are Vegetation N, Soil N, or Hydrology N significantly disturbed? Are "Normal Circumstances" present? Yes x No

Are Vegetation N, Soil N, or Hydrology N naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes X	No	**Is the Sampled Area**
Hydric Soil Present?	Yes X	No	**within a Wetland?** **Yes** X **No**
Wetland Hydrology Present?	Yes X	No	If yes, optional Wetland Site ID: Wetland H

Remarks: (Explain alternative procedures here or in a separate report.)
This wetland area is comprised of a conservation area, which includes upland islands within open water areas as well as a rock spillway, etc. Portions of this wetland that are located along the upper banks of Ash Creek are tidally influenced. This sample point represents Wetland H.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- X Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ Marl Deposits (B15)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ___ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- X FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes x	No	Depth (inches): 12
Water Table Present?	Yes	No X	Depth (inches):
Saturation Present? (includes capillary fringe)	Yes	No X	Depth (inches):

Wetland Hydrology Present? **Yes** X **No**

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
Conducted additional SP in an area adjacent to the edge of open water area; in that instance, the soils are saturated at a depth of 3 inches. Wetland hydrology indicators observed

VEGETATION – Use scientific names of plants. Sampling Point: 17

Tree Stratum (Plot size: 30)	Absolute % Cover	Dominant Species?	Indicator Status
1. *Salix nigra*	10	Yes	OBL
2.			
3.			
4.			
5.			
6.			
7.			
	10	=Total Cover	
Sapling/Shrub Stratum (Plot size: 15)			
1. *Salix nigra*	5	Yes	OBL
2. *Salix discolor*	5	Yes	FACW
3.			
4.			
5.			
6.			
7.			
	10	=Total Cover	
Herb Stratum (Plot size: 5)			
1. *Phragmites australis*	80	Yes	FACW
2. *Typha angustifolia*	20	Yes	OBL
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
	100	=Total Cover	
Woody Vine Stratum (Plot size: 30)			
1. *Not applicable*			
2.			
3.			
4.			
		=Total Cover	

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 5 (A)

Total Number of Dominant Species Across All Strata: 5 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	35	x 1 =	35
FACW species	85	x 2 =	170
FAC species	0	x 3 =	0
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	120 (A)		205 (B)

Prevalence Index = B/A = 1.71

Hydrophytic Vegetation Indicators:

X 1 - Rapid Test for Hydrophytic Vegetation

X 2 - Dominance Test is >50%

X 3 - Prevalence Index is ≤3.0[1]

___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Vegetation Strata:

Tree – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/shrub – Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vines – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? **Yes** X **No** ___

Remarks: (Include photo numbers here or on a separate sheet.)
Hydrophytic community as illustrated by results of analyses

SOIL

Sampling Point: 17

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-3	10YR 2/1	100						Mucky Silt Loam
3-22	10YR 6/2	90	10YR 6/8	10	C	M		Clay Loam

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

[2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Polyvalue Below Surface (S8) (**LRR R, MLRA 149B**)
- ___ Thin Dark Surface (S9) (**LRR R, MLRA 149B**)
- ___ High Chroma Sands (S11) (**LRR K, L)**
- ___ Loamy Mucky Mineral (F1) (**LRR K, L**)
- ___ Loamy Gleyed Matrix (F2)
- X Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Marl (F10) (**LRR K, L**)

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) (**LRR K, L, MLRA 149B**)
- ___ Coast Prairie Redox (A16) (**LRR K, L, R**)
- ___ 5 cm Mucky Peat or Peat (S3) (**LRR K, L, R**)
- ___ Polyvalue Below Surface (S8) (**LRR K, L**)
- ___ Thin Dark Surface (S9) (**LRR K, L**)
- ___ Iron-Manganese Masses (F12) (**LRR K, L, R**)
- ___ Piedmont Floodplain Soils (F19) (**MLRA 149B**)
- ___ Mesic Spodic (TA6) (**MLRA 144A, 145, 149B**)
- ___ Red Parent Material (F21)
- ___ Very Shallow Dark Surface (F22)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** ____ **No** ____

Remarks:

Hydric soils indicators observed

WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: Fairfield to Congress - 115kV T-Line City/County: Fairfield Co. Sampling Date: 4/5/2022

Applicant/Owner: Avangrid - United Illuminating State: CT Sampling Point: 18

Investigator(s): SMS Section, Township, Range:

Landform (hillside, terrace, etc.): Hillslope Local relief (concave, convex, none): Convex Slope %: 3

Subregion (LRR or MLRA): LRR R Lat: 41.157754 Long: -73.236431 Datum: NAD 83

Soil Map Unit Name: 308 - Udorthents, smoothed NWI classification: Non-wetland

Are climatic / hydrologic conditions on the site typical for this time of year? Yes x No ____ (If no, explain in Remarks.)

Are Vegetation N, Soil N, or Hydrology N significantly disturbed? Are "Normal Circumstances" present? Yes x No ____

Are Vegetation N, Soil N, or Hydrology N naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ____	No X	**Is the Sampled Area**
Hydric Soil Present?	Yes ____	No X	**within a Wetland?** **Yes** ____ **No** X
Wetland Hydrology Present?	Yes ____	No x	If yes, optional Wetland Site ID:

Remarks: (Explain alternative procedures here or in a separate report.)
The change between wetland and non-wetland habitats is conspicuous in the field due to an abprupt change in elevation. This sample point is located in an upland habitat adjacent to Wetland H and is on a hillslope between Wetland J and the upland portion of the conservation area.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ Marl Deposits (B15)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ___ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ____	No ____	Depth (inches): ____
Water Table Present?	Yes ____	No ____	Depth (inches): ____
Saturation Present? (includes capillary fringe)	Yes ____	No ____	Depth (inches): ____

Wetland Hydrology Present? **Yes** ____ **No** x

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
No signs of wetland hydrology observed

VEGETATION – Use scientific names of plants. Sampling Point: 18

Tree Stratum (Plot size: 30)	Absolute % Cover	Dominant Species?	Indicator Status
1. *Not applicable*			
2.			
3.			
4.			
5.			
6.			
7.			
		=Total Cover	
Sapling/Shrub Stratum (Plot size: 15)			
1. *Not applicable*			
2.			
3.			
4.			
5.			
6.			
7.			
		=Total Cover	
Herb Stratum (Plot size: 5)			
1. *Solidago canadensis*	30	Yes	FACU
2. *Phleum pratense*	20	Yes	FACU
3. *Erigeron canadensis*	5	No	FACU
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
	55	=Total Cover	
Woody Vine Stratum (Plot size: 30)			
1. *Not applicable*			
2.			
3.			
4.			
		=Total Cover	

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across All Strata: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	0	x 3 =	0
FACU species	55	x 4 =	220
UPL species	0	x 5 =	0
Column Totals:	55 (A)		220 (B)

Prevalence Index = B/A = 4.00

Hydrophytic Vegetation Indicators:

___ 1 - Rapid Test for Hydrophytic Vegetation

___ 2 - Dominance Test is >50%

___ 3 - Prevalence Index is ≤3.0[1]

___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Vegetation Strata:

Tree – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/shrub – Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vines – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? **Yes** ___ **No** X

Remarks: (Include photo numbers here or on a separate sheet.)
Not a Hydrophytic community as illustrated by results of analyses

SOIL

Sampling Point 18

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-3	10YR 4/3	100						Silt Loam
3-20	10YR 5/4	100						Silt Loam

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

[2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Polyvalue Below Surface (S8) (**LRR R, MLRA 149B**)
- ___ Thin Dark Surface (S9) (**LRR R, MLRA 149B**)
- ___ High Chroma Sands (S11) (**LRR K, L)**
- ___ Loamy Mucky Mineral (F1) (**LRR K, L**)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Marl (F10) (**LRR K, L**)

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) (**LRR K, L, MLRA 149B**)
- ___ Coast Prairie Redox (A16) (**LRR K, L, R**)
- ___ 5 cm Mucky Peat or Peat (S3) (**LRR K, L, R**)
- ___ Polyvalue Below Surface (S8) (**LRR K, L**)
- ___ Thin Dark Surface (S9) (**LRR K, L**)
- ___ Iron-Manganese Masses (F12) (**LRR K, L, R**)
- ___ Piedmont Floodplain Soils (F19) (**MLRA 149B**)
- ___ Mesic Spodic (TA6) (**MLRA 144A, 145, 149B**)
- ___ Red Parent Material (F21)
- ___ Very Shallow Dark Surface (F22)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** ___ **No** X

Remarks:

No hydric soils indicators observed.

WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: Fairfield to Congress - 115kV T-Line City/County: Fairfield Co. Sampling Date: 4/5/2022

Applicant/Owner: Avangrid - United Illuminating State: CT Sampling Point: 19

Investigator(s): SMS Section, Township, Range:

Landform (hillside, terrace, etc.): Toe Slope Local relief (concave, convex, none):) Concave Slope %: 1

Subregion (LRR or MLRA): LRR R Lat: 41.165969 Long: -73.224807 Datum: NAD 83

Soil Map Unit Name: Water NWI classification: PEM

Are climatic / hydrologic conditions on the site typical for this time of year? Yes x No (If no, explain in Remarks.)

Are Vegetation N, Soil N, or Hydrology N significantly disturbed? Are "Normal Circumstances" present? Yes x No

Are Vegetation N, Soil N, or Hydrology N naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes X	No	**Is the Sampled Area**
Hydric Soil Present?	Yes X	No	**within a Wetland?** **Yes** X **No**
Wetland Hydrology Present?	Yes X	No	If yes, optional Wetland Site ID: Tidal Wetland J

Remarks: (Explain alternative procedures here or in a separate report.)
This wetland area is comprised of a tidally influenced area along Ash Creek. This sample point represents Tidal Wetland J.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- X High Water Table (A2)
- X Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ Marl Deposits (B15)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ___ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- X FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes	No X	Depth (inches):
Water Table Present?	Yes x	No	Depth (inches): 4
Saturation Present? (includes capillary fringe)	Yes x	No	Depth (inches): 2

Wetland Hydrology Present? **Yes** X **No**

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
Wetland hydrology indicators observed

VEGETATION – Use scientific names of plants. Sampling Point: 19

Tree Stratum (Plot size: 30)	Absolute % Cover	Dominant Species?	Indicator Status
1. *Not applicable*			
2.			
3.			
4.			
5.			
6.			
7.			
	=Total Cover		
Sapling/Shrub Stratum (Plot size: 15)			
1. *Not applicable*			
2.			
3.			
4.			
5.			
6.			
7.			
	=Total Cover		
Herb Stratum (Plot size: 5)			
1. *Phragmites australis*	100	Yes	FACW
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
	100 =Total Cover		
Woody Vine Stratum (Plot size: 30)			
1. *Not applicable*			
2.			
3.			
4.			
	=Total Cover		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across All Strata: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	100	x 2 =	200
FAC species	0	x 3 =	0
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	100 (A)		200 (B)

Prevalence Index = B/A = 2.00

Hydrophytic Vegetation Indicators:

X 1 - Rapid Test for Hydrophytic Vegetation

X 2 - Dominance Test is >50%

X 3 - Prevalence Index is ≤3.0[1]

___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Vegetation Strata:

Tree – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/shrub – Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vines – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? **Yes** X **No** ___

Remarks: (Include photo numbers here or on a separate sheet.)
Hydrophytic community as illustrated by results of analyses

SOIL

Sampling Point 19

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-20	10YR 2/1	100					Mucky Loam/Clay	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

[2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ Depleted Below Dark Surface (A11)
- X Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Polyvalue Below Surface (S8) (**LRR R, MLRA 149B**)
- ___ Thin Dark Surface (S9) (**LRR R, MLRA 149B**)
- ___ High Chroma Sands (S11) (**LRR K, L)**
- ___ Loamy Mucky Mineral (F1) (**LRR K, L**)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Marl (F10) (**LRR K, L**)

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) (**LRR K, L, MLRA 149B**)
- ___ Coast Prairie Redox (A16) (**LRR K, L, R**)
- ___ 5 cm Mucky Peat or Peat (S3) (**LRR K, L, R**)
- ___ Polyvalue Below Surface (S8) (**LRR K, L**)
- ___ Thin Dark Surface (S9) (**LRR K, L**)
- ___ Iron-Manganese Masses (F12) (**LRR K, L, R**)
- ___ Piedmont Floodplain Soils (F19) (**MLRA 149B**)
- ___ Mesic Spodic (TA6) (**MLRA 144A, 145, 149B**)
- ___ Red Parent Material (F21)
- ___ Very Shallow Dark Surface (F22)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** ____ **No** ____

Remarks:

Hydric soils indicators observed

WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: Fairfield to Congress - 115kV T-Line City/County: Fairfield Co. Sampling Date: 4/5/2022

Applicant/Owner: Avangrid - United Illuminating State: CT Sampling Point: 20

Investigator(s): SMS Section, Township, Range:

Landform (hillside, terrace, etc.): Hillslope Local relief (concave, convex, none): Convex Slope %: 3

Subregion (LRR or MLRA): LRR R Lat: 41.166095 Long: -73.224588 Datum: NAD 83

Soil Map Unit Name: 306 - Udorthents-Urban Land complex NWI classification: Non-wetland

Are climatic / hydrologic conditions on the site typical for this time of year? Yes x No ____ (If no, explain in Remarks.)

Are Vegetation N , Soil N , or Hydrology N significantly disturbed? Are "Normal Circumstances" present? Yes x No ____

Are Vegetation N , Soil N , or Hydrology N naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ____	No X	**Is the Sampled Area**
Hydric Soil Present?	Yes ____	No X	**within a Wetland?** **Yes** ____ **No** X
Wetland Hydrology Present?	Yes ____	No x	If yes, optional Wetland Site ID:

Remarks: (Explain alternative procedures here or in a separate report.)
The change between wetland and non-wetland habitats is conspicuous in the field due to an abprupt change in elevation. This sample point is located in the mostly ballast-covered hillslope between Tidal Wetland J and the railroad right-of-way.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ Marl Deposits (B15)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ___ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ____	No ____	Depth (inches): ____
Water Table Present?	Yes ____	No ____	Depth (inches): ____
Saturation Present? (includes capillary fringe)	Yes ____	No ____	Depth (inches): ____

Wetland Hydrology Present? **Yes** ____ **No** x

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
No signs of wetland hydrology observed

VEGETATION – Use scientific names of plants. Sampling Point: 20

Tree Stratum (Plot size: 30)	Absolute % Cover	Dominant Species?	Indicator Status
1. *Not applicable*			
2.			
3.			
4.			
5.			
6.			
7.			
	=Total Cover		
Sapling/Shrub Stratum (Plot size: 15)			
1. *Not applicable*			
2.			
3.			
4.			
5.			
6.			
7.			
	=Total Cover		
Herb Stratum (Plot size: 5)			
1. *Solidago canadensis*	90	Yes	FACU
2. *Erigeron canadensis*	10	No	FACU
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
	100 =Total Cover		
Woody Vine Stratum (Plot size: 30)			
1. *Not applicable*			
2.			
3.			
4.			
	=Total Cover		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across All Strata: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	0	x 3 =	0
FACU species	100	x 4 =	400
UPL species	0	x 5 =	0
Column Totals:	100 (A)		400 (B)

Prevalence Index = B/A = 4.00

Hydrophytic Vegetation Indicators:

___ 1 - Rapid Test for Hydrophytic Vegetation

___ 2 - Dominance Test is >50%

___ 3 - Prevalence Index is ≤3.0[1]

___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Vegetation Strata:

Tree – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/shrub – Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vines – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? **Yes** ___ **No** X

Remarks: (Include photo numbers here or on a separate sheet.)
Not a Hydrophytic community as illustrated by results of analyses

SOIL

Sampling Point 20

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-2	10YR 3/2	100						Silt Loam, very rocky
2-18	10YR 5/4	100						Silt Loam, very rocky

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

[2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Polyvalue Below Surface (S8) (**LRR R, MLRA 149B**)
- ___ Thin Dark Surface (S9) (**LRR R, MLRA 149B**)
- ___ High Chroma Sands (S11) (**LRR K, L)**
- ___ Loamy Mucky Mineral (F1) (**LRR K, L**)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Marl (F10) (**LRR K, L**)

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) (**LRR K, L, MLRA 149B**)
- ___ Coast Prairie Redox (A16) (**LRR K, L, R**)
- ___ 5 cm Mucky Peat or Peat (S3) (**LRR K, L, R**)
- ___ Polyvalue Below Surface (S8) (**LRR K, L**)
- ___ Thin Dark Surface (S9) (**LRR K, L**)
- ___ Iron-Manganese Masses (F12) (**LRR K, L, R**)
- ___ Piedmont Floodplain Soils (F19) (**MLRA 149B**)
- ___ Mesic Spodic (TA6) (**MLRA 144A, 145, 149B**)
- ___ Red Parent Material (F21)
- ___ Very Shallow Dark Surface (F22)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** ___ **No** X

Remarks:

No hydric soils indicators observed.

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APPENDIX: F CT DEEP Natural Diversity Database Correspondence

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Connecticut Department of
Energy & Environmental Protection
Bureau of Natural Resources
Wildlife Division

CPPU USE ONLY
App #:_____
Doc #:_____
Check #: No fee required
Program: Natural Diversity Database Endangered Species
Hardcopy _____ Electronic _____

Request for Natural Diversity Data Base (NDDB) State Listed Species Review

Please complete this form in accordance with the instructions (DEEP-INST-007) to ensure proper handling of your request.
There are no fees associated with NDDB Reviews.

Part I: Preliminary Screening & Request Type

Before submitting this request, you must review the most current Natural Diversity Data Base "State and Federal Listed Species and Significant Natural Communities Maps" found on the DEEP website. These maps are updated twice a year, usually in June and December.

Does your site, including all affected areas, fall in an NDDB Area according to the map instructions:

☐ Yes ☒ No **Enter the date** of the map reviewed for pre-screening: 09/06/2019

This form is being submitted for a :

☒ *New* NDDB request ☐ *Renewal/Extension* of a NDDB Request, ***without*** *modifications and within* ***two years*** *of issued NDDB determination* (no attachments required) [*CPPU Use Only - NDDB-Listed Species Determination #* 1736]	☐ *New* **Safe Harbor Determination** (optional) must be associated with an application for a GP for the Discharge of Stormwater and Dewatering Wastewaters from Construction Activities ☐ *Renewal/Extension* of an existing Safe Harbor Determination ☐ With modifications ☐ Without modifications (no attachments required) [*CPPU Use Only - NDDB-Safe Harbor Determination #* 1736]
Enter NDDB Determination Number for Renewal/Extension:	Enter Safe Harbor Determination Number for Renewal/Extension:

Part II: Requester Information

If the requester is a corporation, limited liability company, limited partnership, limited liability partnership, or a statutory trust, it must be registered with the Secretary of State. If applicable, the name shall be stated **exactly as it is registered with the Secretary of State. Please note, for those entities registered with the Secretary of State, the registered name will be the name used by DEEP. This information can be accessed at the Secretary of the State's database CONCORD.* (www.concord-sots.ct.gov/CONCORD/index.jsp)

If the requester is an individual, provide the legal name (include suffix) in the following format: First Name; Middle Initial; Last Name; Suffix (Jr, Sr., II, III, etc.).

If there are any changes or corrections to your company/facility or individual mailing or billing address or contact information, please complete and submit the Request to Change company/Individual Information to the address indicated on the form.

1. Requester*

Company Name: BL Companies

Contact Name: Donald Smith

Address: 355 Research Parkway

City/Town: Meriden State: CT Zip Code: 06450

Business Phone: 203-608-2402 ext.

**E-mail: DSmith@BLCompanies.com

**By providing this email address you are agreeing to receive official correspondence from the department, at this electronic address, concerning this request. Please remember to check your security settings to be sure you can receive emails from "ct.gov" addresses. Also, please notify the department if your e-mail address changes

a) Requester can best be described as:

☐ Individual ☐ Federal Agency ☐ State agency ☐ Municipality ☐ Tribal

☒ *business entity (* if a business entity complete i through iii):

i) Check type ☒ corporation ☐ limited liability company ☐ limited partnership ☐ limited liability partnership ☐ statutory trust ☐ Other:

ii) Provide Secretary of the State Business ID #: This information can be accessed at the Secretary of the State's database (CONCORD). (www.concord-sots.ct.gov/CONCORD/index.jsp)

iii) ☐ Check here if your business is **NOT** registered with the Secretary of State's office.

b) Acting as (Affiliation), pick one:

☐ Property owner ☒ Consultant ☐ Engineer ☐ Facility owner ☐ Applicant

☐ Biologist ☐ Pesticide Applicator ☐ Other representative:

2. List Primary Contact to receive Natural Diversity Data Base correspondence and inquiries, if different from requester.

Company Name:

Contact Person: Title:

Mailing Address:

City/Town: State: Zip Code:

Business Phone: ext.

**E-mail:

Part III: Site Information

This request can only be completed for one site. A separate request must be filed for each additional site.

1. SITE NAME AND LOCATION

Site Name or Project Name: Sasco Creek to Congress Substation

Town(s): Fairfield and Brideport

Street Address or Location Description: The coordinates for the approximate southwestern and northeastern ends of this linear project are N41.126608/W73.301790 and N41.184136/W73.185377, respectively. The project site is a linear corridor (i.e., an existing rail road), approximately 8.0 miles long and 50 feet wide on the north and south sides of the Metro North rail way.

Size in acres, or site dimensions:

Latitude and longitude of the center of the site in decimal degrees (e.g., 41.23456 -71.68574):

Please refer to above description.

Latitude: Longitude:

Method of coordinate determination (check one):

☐ GPS ☐ Photo interpolation using CTECO map viewer ☒ Other (specify): CAD/GIS Files

2a. Describe the current land use and land cover of the site.

The field investigations were conducted within the area of the Metro North rail way Right-of-Way, a transportation corridor constructed over 100-years ago and in constant use since then. As such, this historic land use and both past and present anthropogenic actions have affected the ecology of areas within the railroad right-of-way.

b. Check all that apply and enter the size in acres or % of area in the space after each checked category.

☐ Industrial/Commercial _____	☐ Residential _____	☐ Forest _____
☒ Wetland 5	☐ Field/grassland _____	☐ Agricultural _____
☒ Water 5	☒ Utility Right-of-way 90	
☐ Transportation Right-of-way _____	☐ Other (specify): _____	

Part IV: Project Information

1. PROJECT TYPE:

Choose Project Type: Choose Type From Dropdown List , If other describe: _____

2. Is the subject activity limited to the maintenance, repair, or improvement of an existing structure within the existing footprint? ☐ Yes ☒ No If yes, explain.

Part IV: Project Information (continued)

3. Give a detailed description of the activity which is the subject of this request and describe the methods and equipment that will be used. Include a description of steps that will be taken to minimize impacts to any known listed species.

The client is investigating upgrades to existing electric transmission lines and poles located within the CTDOT railroad right-of-way. These upgrades may involve the installation of multiple new transmission towers within or near the existing CTDOT railroad right-of-way between Fairfield and Bridgeport, CT. Anticipated construction equipment includes but is not limited to cranes, bucket trucks, pulling mechanisms for new wire, excavators, loaders, and construction support vehicles. Wetland resources will be field delineated and avoided to the extent practicable. Further avoidance and mitigation strategies will be developed as conceptual plans progress.

4. If this is a renewal or extension of an existing Safe Harbor request *with* modifications, explain what about the project has changed.

5. Provide a contact for questions about the project details if different from Part II primary contact.

   Name:

   Phone:

   E-mail:

Part V: Request Requirements and Associated Application Types

Check *one* box from either Group 1, Group 2 *or* Group 3, indicating the appropriate category for this request.

Group 1. If you check one of these boxes, complete Parts I – VII of this form and submit the required attachments A and B.

- ☐ Preliminary screening was negative but an NDDB review is still requested
- ☐ Request regards a municipally regulated or unregulated activity (no state permit/certificate needed)
- ☒ Request regards a preliminary site assessment or project feasibility study
- ☐ Request relates to land acquisition or protection
- ☐ Request is associated with a *renewal* of an existing permit or authorization, with no modifications

Group 2. If you check one of these boxes, complete Parts I – VII of this form and submit required attachments A, B, *and* C.

- ☐ Request is associated with a *new* state or federal permit or authorization application or registration
- ☐ Request is associated with modification of an existing permit or other authorization
- ☐ Request is associated with a permit enforcement action
- ☒ Request regards site management or planning, requiring detailed species recommendations
- ☐ Request regards a state funded project, state agency activity, or CEPA request

☐ **Group 3.** If you are requesting a **Safe Harbor Determination**, complete Parts I-VII and submit required attachments A, B, and D. Safe Harbor determinations can only be requested if you are applying for a GP for the Discharge of Stormwater and Dewatering Wastewaters from Construction Activities

If you are filing this request as part of a state or federal permit application(s) enter the application information below.

Permitting Agency and Application Name(s): _____

Related State DEEP Permit Number(s), if applicable: _____

State DEEP Enforcement Action Number, if applicable: _____

State DEEP Permit Analyst(s)/Engineer(s), if known: _____

Is this request related to a previously submitted NDDB request? ☐ Yes ☐ No

If yes, provide the previous NDDB Determination Number(s), if known: _____

Part VI: Supporting Documents

Check each attachment submitted as verification that *all* applicable attachments have been supplied with this request form. Label each attachment as indicated in this part (e.g., Attachment A, etc.) and be sure to include the requester's name, site name and the date. **Please note that Attachments A and B are required for all new requests and Safe Harbor renewals/extensions with modifications.** Renewals/Extensions with no modifications do not need to submit any attachments. Attachments C and D are supplied at the end of this form.

☒ Attachment A:	**Overview Map:** an 8 1/2" X 11" print/copy of the relevant portion of a USGS Topographic Quadrangle Map clearly indicating the exact location of the site.
☒ Attachment B:	**Detailed Site Map:** fine scaled map showing site boundary and area of work details on aerial imagery with relevant landmarks labeled. (Site and work boundaries in GIS [ESRI ArcView shapefile, in NAD83, State Plane, feet] format can be substituted for detailed maps, see instruction document)
☒ Attachment C:	**Supplemental Information, Group 2 requirement (attached, DEEP-APP-007C)** ☒ Section i: Supplemental Site Information and supporting documents ☒ Section ii: Supplemental Project Information and supporting documents
☐ Attachment D:	**Safe Harbor Report Requirements, Group 3 (attached, DEEP-APP-007D)**

Part VII: Requester Certification

The requester *and* the individual(s) responsible for actually preparing the request must sign this part. A request will be considered incomplete unless all required signatures are provided.

"I have personally examined and am familiar with the information submitted in this document and all attachments thereto, and I certify that based on reasonable investigation, including my inquiry of the individuals responsible for obtaining the information, the submitted information is true, accurate and complete to the best of my knowledge and belief."

	09/06/2019
Signature of Requester (a typed name will substitute for a handwritten signature)	Date
Donald Smith	Senior Project Manager
Name of Requester (print or type)	Title (if applicable)
	09/06/2019
Signature of Preparer (if different than above)	Date
Daniel J. King	Senior Project Scientist
Name of Preparer (print or type)	Title (if applicable)

Note: Please submit the completed Request Form and all Supporting Documents to:

CENTRAL PERMIT PROCESSING UNIT
DEPARTMENT OF ENERGY & ENVIRONMENTAL PROTECTION
79 ELM STREET
HARTFORD, CT 06106-5127

Or email request to: **deep.nddbrequest@ct.gov**

Attachment C: Supplemental Information, Group 2 requirement

Section i: Supplemental Site Information

1. Existing Conditions

Describe all natural and man-made features including wetlands, watercourses, fish and wildlife habitat, floodplains and any existing structures potentially affected by the subject activity. Such features should be depicted and labeled on the site plan that must be submitted. Photographs of current site conditions may be helpful to reviewers.

☐ **Site Photographs (optional) attached**

☐ **Site Plan/sketch of existing conditions attached**

2. Biological Surveys

Has a biologist visited the site and conducted a biological survey to determine the presence of any endangered, threatened or special concern species ☐ Yes ☐ No

If yes, complete the following questions and submit any reports of biological surveys, documentation of the biologist's qualifications, and any NDDB survey forms.

Biologist(s) name: _____

Habitat and/or species targeted by survey: _____

Dates when surveys were conducted: _____

☐ **Reports of biological surveys attached**

☐ **Documentation of biologist's qualifications attached**

☐ **NDDB Survey forms for any listed species observations attached**

Section ii: Supplemental Project Information

1. Provide a schedule for all phases of the project including the year, the month and/or season that the proposed activity will be initiated and the duration of the activity.

2. Describe and quantify the proposed changes to existing conditions and describe any on-site or off-site impacts. In addition, provide an annotated site plan detailing the areas of impact and proposed changes to existing conditions.

☐ **Annotated Site Plan attached**

Attachment D: Safe Harbor Report Requirements

Submit a report, as Attachment D, that synthesizes and analyzes the information listed below. Those providing synthesis and analysis need appropriate qualifications and experience. A request for a safe harbor determination shall include:

1. **Habitat Description and Map(s), including GIS mapping overlays, of a scale appropriate for the site, identifying:**

   - wetlands, including wetland cover types;
   - plant community types;
   - topography;
   - soils;
   - bedrock geology;
   - floodplains, if any;
   - land use history; and
   - water quality classifications/criteria.

2. **Photographs -** The report should include photographs of the site taken from the ground and also all reasonably available aerial or satellite photographs and an analysis of such photographs.

3. **Inspection -** A visual inspection(s) of the site should be conducted, preferably when the ground is visible, and described in the report. This inspection can be helpful in confirming or further evaluating the items noted above.

4. **Biological Surveys -** The report should include all biological surveys of the site where construction activity will take place that are reasonably available to a registrant. A registrant shall notify the Department's Wildlife Division of biological studies of the site where construction activity will take place that a registrant is aware of but are not reasonably available to the registrant.

5. **Based on items #1 through 4 above, the report shall include a Natural Resources Inventory of the site of the construction activity.** This inventory should also include a review of reasonably available scientific literature and any recommendations for minimizing adverse impacts from the proposed construction activity on listed species or their associated habitat.

6. **In addition, to the extent the following is available at the time a safe harbor determination is requested, a request for a safe harbor determination shall include and assess:**

   - Information on Site Disturbance Estimates/Site Alteration information
   - Vehicular Use
   - Construction Activity Phasing Schedules, if any; and
   - Alteration of Drainage Patterns

Legend

Project Location

Service Layer Credits: Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, (c) OpenStreetMap contributors, and the GIS User Community
Source: Esri, Maxar, Earthstar Geographics, and the GIS User Community

1:1,200
1 inch = 100 feet

50 25 0 50 100 Feet

BL Companies
Architecture
Engineering
Environmental
Land Surveying

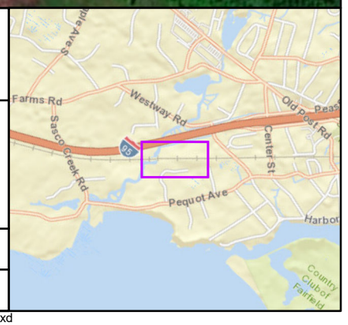
DRAWN BY: SMS	**APPROVED BY:** WGW
Version: Version 3	**DATE:** 8/27/2022
Notes:	

UI AVANGRID

Fairfield to Congress 115kV T-Line Project
Fairfield County, CT
Project Location

PRJ NUM: 2102261

APPENDIX C SHEET NUMBER: 1 OF 39



Document Path: G:\JOBS21\22\2102261\GIS\MXD\NDDB Aerial Map.mxd

Legend

Project Location

Service Layer Credits: Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, (c) OpenStreetMap contributors, and the GIS User Community
Source: Esri, Maxar, Earthstar Geographics, and the GIS User Community

1:1,200
1 inch = 100 feet

50 25 0 50 100
Feet

BL Companies
Architecture
Engineering
Environmental
Land Surveying

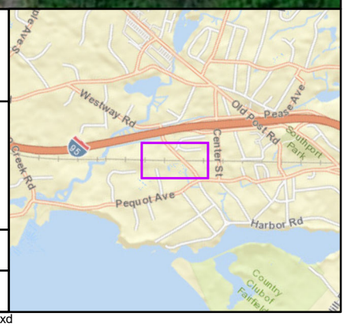
DRAWN BY: SMS	**APPROVED BY:** WGW
Version: Version 3	**DATE:** 8/27/2022
Notes:	

UI AVANGRID

Fairfield to Congress 115kV T-Line Project
Fairfield County, CT
Project Location

PRJ NUM: 2102261

APPENDIX C SHEET NUMBER: 2 OF 39



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Legend

Project Location

Service Layer Credits: Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, (c) OpenStreetMap contributors, and the GIS User Community
Source: Esri, Maxar, Earthstar Geographics, and the GIS User Community

1:1,200
1 inch = 100 feet

50 25 0 50 100
Feet

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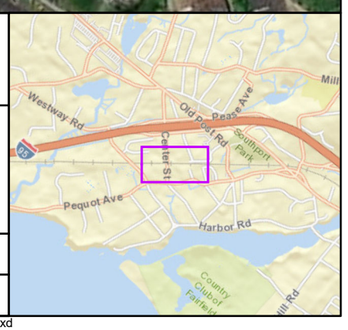
Version: Version 3	**DATE:** 8/27/2022
Notes:	

UI AVANGRID

Fairfield to Congress 115kV T-Line Project
Fairfield County, CT
Project Location

PRJ NUM: 2102261

APPENDIX C SHEET NUMBER: 3 OF 39



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Legend

Project Location

Service Layer Credits: Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, (c) OpenStreetMap contributors, and the GIS User Community
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1:1,200
1 inch = 100 feet

50 25 0 50 100 Feet

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Version: Version 3	**DATE:** 8/27/2022
Notes:	

UI AVANGRID

Fairfield to Congress 115kV T-Line Project
Fairfield County, CT
Project Location

PRJ NUM: 2102261

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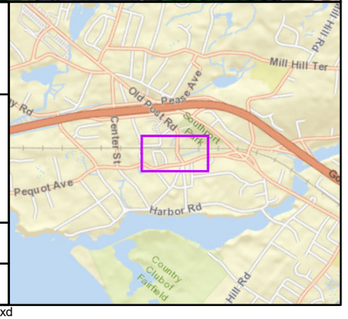

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Legend

Project Location

Service Layer Credits: Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, (c) OpenStreetMap contributors, and the GIS User Community
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1:1,200
1 inch = 100 feet

50 25 0 50 100 Feet

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Notes:	

UI AVANGRID

Fairfield to Congress 115kV T-Line Project
Fairfield County, CT
Project Location

PRJ NUM: 2102261

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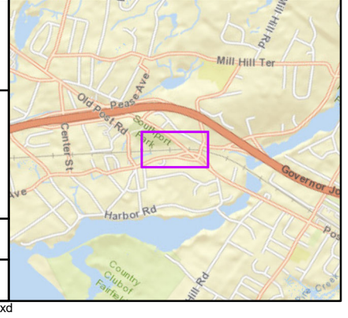

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Project Location

Service Layer Credits: Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, (c) OpenStreetMap contributors, and the GIS User Community
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1:1,200
1 inch = 100 feet

50 25 0 50 100 Feet

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Fairfield to Congress 115kV T-Line Project Fairfield County, CT Project Location

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Notes:	**PRJ NUM:** 2102261
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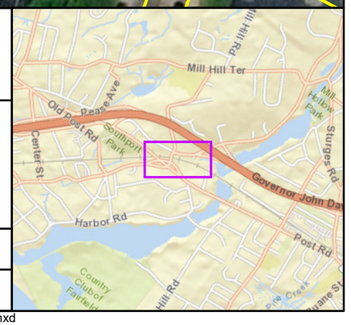

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Project Location

Service Layer Credits: Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, (c) OpenStreetMap contributors, and the GIS User Community
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50 25 0 50 100 Feet

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Fairfield to Congress 115kV T-Line Project
Fairfield County, CT
Project Location

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Notes:	**PRJ NUM:** 2102261
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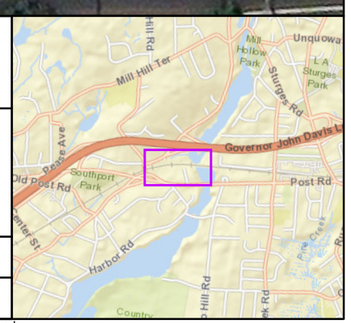

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Project Location

Service Layer Credits: Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, (c) OpenStreetMap contributors, and the GIS User Community
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1 inch = 100 feet

50 25 0 50 100 Feet

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UI AVANGRID

Fairfield to Congress 115kV T-Line Project
Fairfield County, CT
Project Location

PRJ NUM: 2102261

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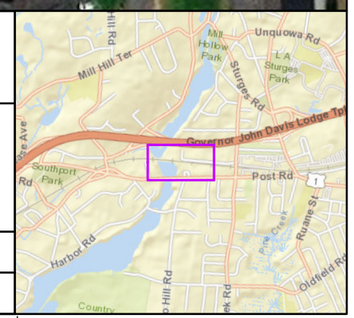

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Legend

Project Location

Service Layer Credits: Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, (c) OpenStreetMap contributors, and the GIS User Community
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1:1,200
1 inch = 100 feet

50 25 0 50 100 Feet

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Fairfield to Congress 115kV T-Line Project Fairfield County, CT Project Location

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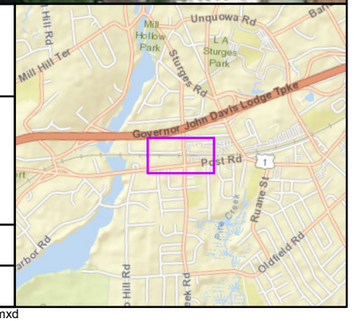

Document Path: G:\JOBS21\22\2102261\GIS\MXD\NDDB Aerial Map.mxd

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Project Location

Service Layer Credits: Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, (c) OpenStreetMap contributors, and the GIS User Community
Source: Esri, Maxar, Earthstar Geographics, and the GIS User Community

1:1,200
1 inch = 100 feet

50 25 0 50 100 Feet

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Fairfield to Congress
115kV T-Line Project
Fairfield County, CT
Project Location

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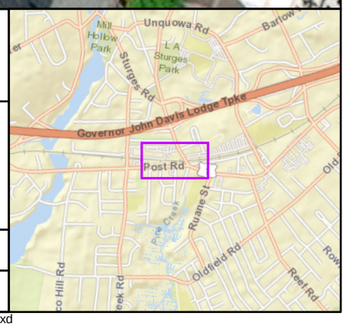

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Project Location

Service Layer Credits: Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, (c) OpenStreetMap contributors, and the GIS User Community
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1:1,200
1 inch = 100 feet

50 25 0 50 100 Feet

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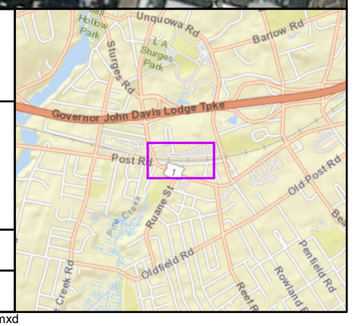
Fairfield to Congress 115kV T-Line Project Fairfield County, CT Project Location



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Project Location

Service Layer Credits: Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, (c) OpenStreetMap contributors, and the GIS User Community
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1:1,200
1 inch = 100 feet

50 25 0 50 100 Feet

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Fairfield to Congress 115kV T-Line Project
Fairfield County, CT
Project Location

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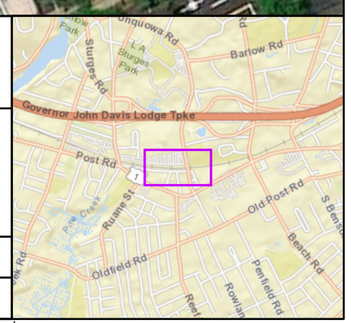

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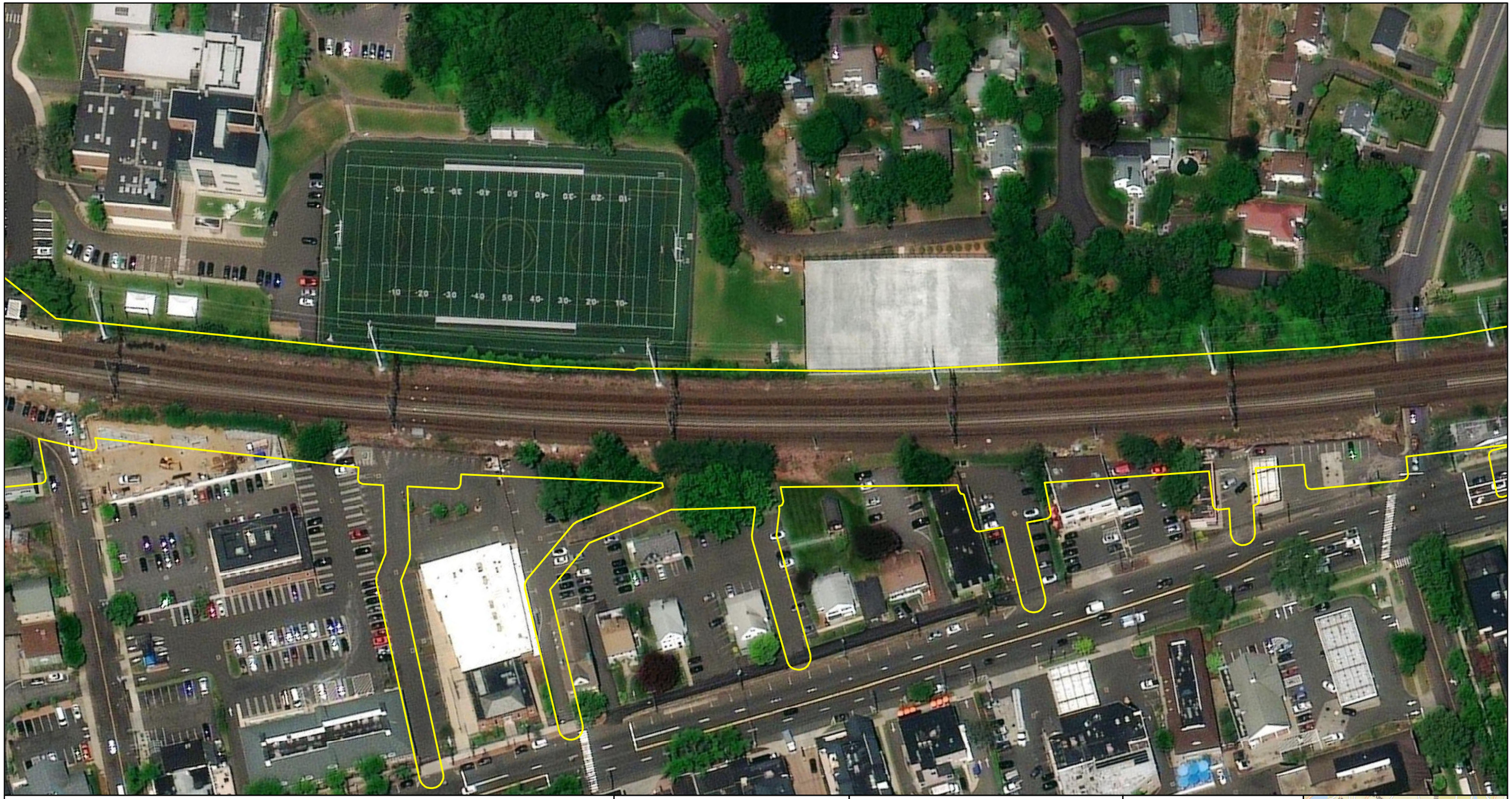

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Project Location

Service Layer Credits: Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, (c) OpenStreetMap contributors, and the GIS User Community
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1:1,200
1 inch = 100 feet

50 25 0 50 100
Feet

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Fairfield to Congress 115kV T-Line Project
Fairfield County, CT
Project Location

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Notes:	**PRJ NUM:** 2102261
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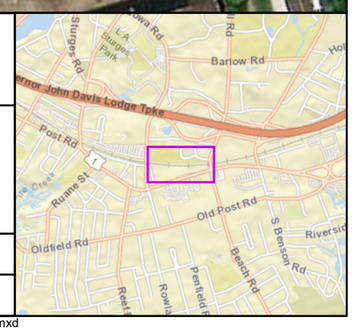

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Legend

Project Location

Service Layer Credits: Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, (c) OpenStreetMap contributors, and the GIS User Community
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1:1,200
1 inch = 100 feet

50 25 0 50 100 Feet

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Fairfield to Congress 115kV T-Line Project
Fairfield County, CT
Project Location

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Notes:	**PRJ NUM:** 2102261
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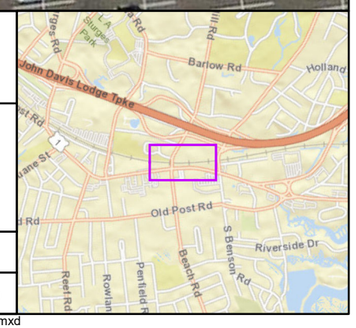

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Project Location

Service Layer Credits: Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, (c) OpenStreetMap contributors, and the GIS User Community
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1:1,200
1 inch = 100 feet

50 25 0 50 100 Feet

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Fairfield to Congress 115kV T-Line Project
Fairfield County, CT
Project Location

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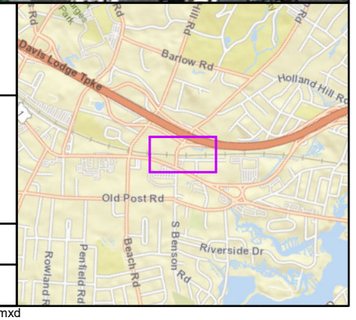

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Project Location

Service Layer Credits: Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, (c) OpenStreetMap contributors, and the GIS User Community
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1:1,800
1 inch = 150 feet

50 25 0 50 100
Feet

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UI AVANGRID

Fairfield to Congress 115kV T-Line Project
Fairfield County, CT
Project Location

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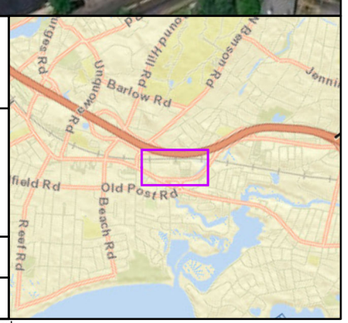

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Legend

Project Location

Service Layer Credits: Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, (c) OpenStreetMap contributors, and the GIS User Community
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1:1,200
1 inch = 100 feet

50 25 0 50 100 Feet

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Fairfield County, CT
Project Location

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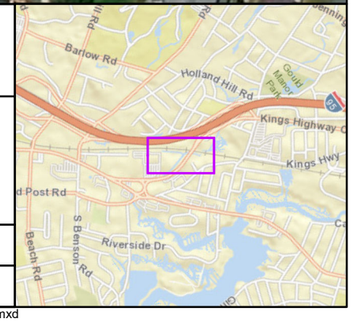

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Project Location

Service Layer Credits: Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, (c) OpenStreetMap contributors, and the GIS User Community
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1:1,200
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50 25 0 50 100 Feet

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UI AVANGRID

Fairfield to Congress 115kV T-Line Project Fairfield County, CT Project Location

PRJ NUM: 2102261

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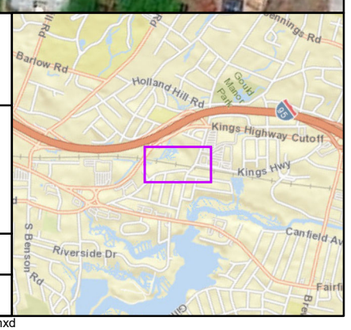

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Project Location

Service Layer Credits: Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, (c) OpenStreetMap contributors, and the GIS User Community
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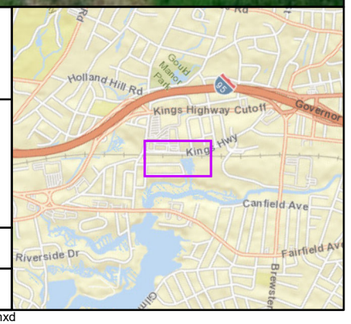
Fairfield to Congress 115kV T-Line Project
Fairfield County, CT
Project Location



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Document Path: G:\JOBS21\22\2102261\GIS\MXD\NDDB Aerial Map.mxd

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Project Location

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1:1,200
1 inch = 100 feet

50 25 0 50 100 Feet

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Fairfield to Congress 115kV T-Line Project Fairfield County, CT Project Location

PRJ NUM: 2102261

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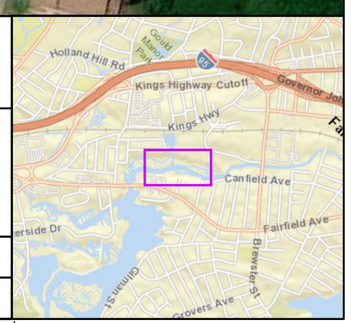

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50 25 0 50 100 Feet

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UI AVANGRID

Fairfield to Congress 115kV T-Line Project
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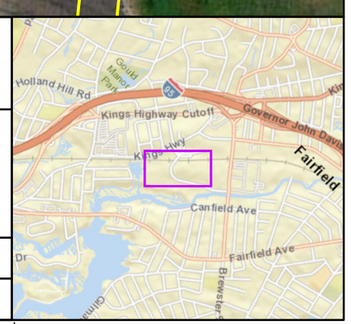

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1:1,800
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50 25 0 50 100 Feet

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Version: Version 3	**DATE:** 8/27/2022
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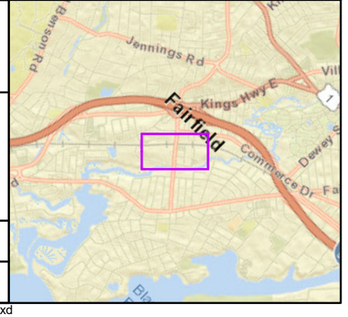
UI AVANGRID

Fairfield to Congress 115kV T-Line Project
Fairfield County, CT
Project Location

PRJ NUM: 2102261

APPENDIX C SHEET NUMBER: 22 OF 39



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Project Location

Service Layer Credits: Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, (c) OpenStreetMap contributors, and the GIS User Community
Source: Esri, Maxar, Earthstar Geographics, and the GIS User Community

1:1,200
1 inch = 100 feet

50 25 0 50 100 Feet

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Fairfield to Congress 115kV T-Line Project
Fairfield County, CT
Project Location

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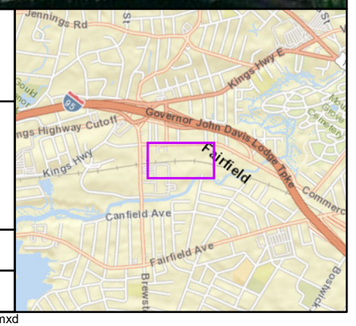
Version: Version 3	**DATE:** 8/27/2022
Notes:	**PRJ NUM:** 2102261
	APPENDIX C SHEET NUMBER: 23 OF 39



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Legend

Project Location

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1:1,800
1 inch = 150 feet

50 25 0 50 100 Feet

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Fairfield to Congress 115kV T-Line Project
Fairfield County, CT
Project Location

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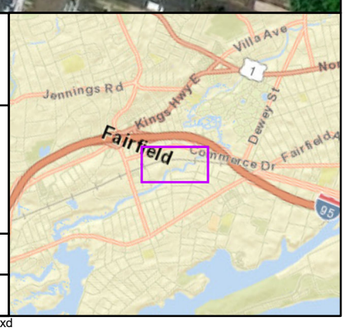
Notes:	**PRJ NUM:** 2102261
	APPENDIX C SHEET NUMBER: 24 OF 39



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Project Location

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1 inch = 100 feet

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Fairfield to Congress 115kV T-Line Project
Fairfield County, CT
Project Location

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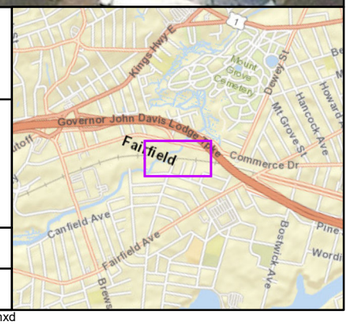
Version: Version 3	**DATE:** 8/27/2022
Notes:	**PRJ NUM:** 2102261
	APPENDIX C SHEET NUMBER: 25 OF 39



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1:1,200
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Fairfield County, CT
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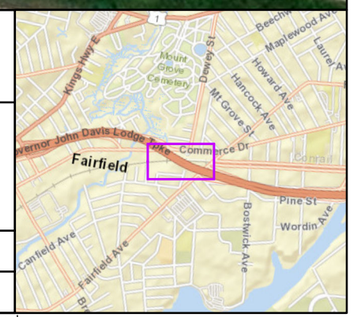
Version: Version 3	**DATE:** 8/27/2022
Notes:	**PRJ NUM:** 2102261
	APPENDIX C SHEET NUMBER: 26 OF 39



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Fairfield County, CT
Project Location

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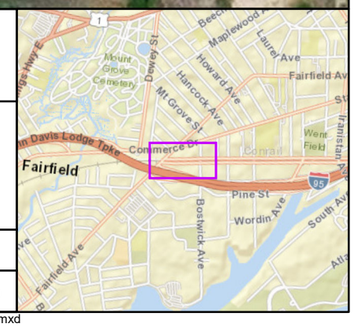
Notes:	**PRJ NUM:** 2102261
	APPENDIX C SHEET NUMBER: 27 OF 39



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1 inch = 150 feet

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Feet

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Fairfield to Congress 115kV T-Line Project
Fairfield County, CT
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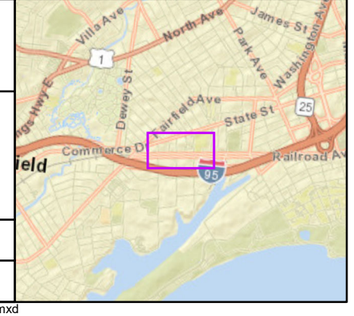
Version: Version 3	**DATE:** 8/27/2022
Notes:	**PRJ NUM:** 2102261
	APPENDIX C SHEET NUMBER: 28 OF 39



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Legend

Project Location

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1 inch = 100 feet

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Fairfield to Congress 115kV T-Line Project Fairfield County, CT Project Location

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Notes:	**PRJ NUM:** 2102261
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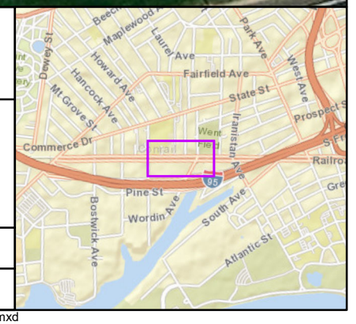

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Legend

Project Location

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1:1,200
1 inch = 100 feet

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Fairfield to Congress 115kV T-Line Project
Fairfield County, CT
Project Location

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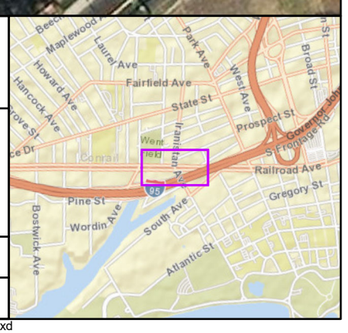
Version: Version 3	**DATE:** 8/27/2022
Notes:	**PRJ NUM:** 2102261
	APPENDIX C SHEET NUMBER: 30 OF 39



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1 inch = 100 feet

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Fairfield to Congress
115kV T-Line Project
Fairfield County, CT
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Notes:	**PRJ NUM:** 2102261
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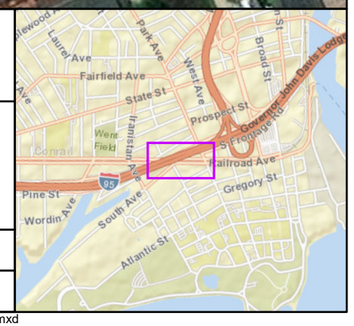

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Project Location

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1:1,200
1 inch = 100 feet

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Fairfield to Congress 115kV T-Line Project
Fairfield County, CT
Project Location

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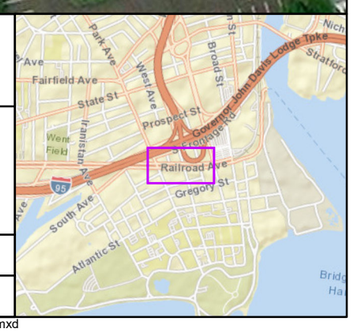
Notes:	**PRJ NUM:** 2102261
	APPENDIX C SHEET NUMBER: 32 OF 39



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Project Location

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1:1,200
1 inch = 100 feet

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Version: Version 3	**DATE:** 8/27/2022
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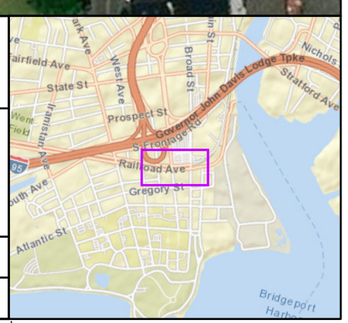
UI AVANGRID

Fairfield to Congress 115kV T-Line Project
Fairfield County, CT
Project Location

PRJ NUM: 2102261

APPENDIX C SHEET NUMBER: 33 OF 39



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Project Location

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Source: Esri, Maxar, Earthstar Geographics, and the GIS User Community

1:1,200
1 inch = 100 feet

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Feet

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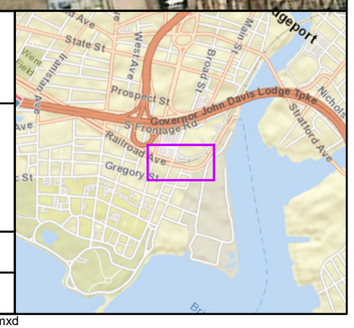
UI AVANGRID

Fairfield to Congress
115kV T-Line Project
Fairfield County, CT
Project Location

PRJ NUM: 2102261

APPENDIX C SHEET NUMBER: 34 OF 39



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1:1,200
1 inch = 100 feet

50 25 0 50 100 Feet

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DRAWN BY: SMS	**APPROVED BY:** WGW
Version: Version 3	**DATE:** 8/27/2022
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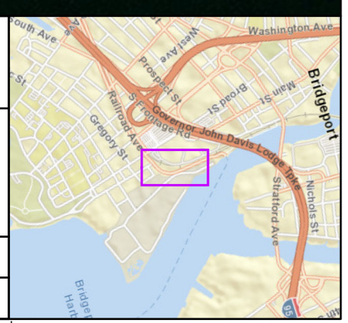
UI AVANGRID

Fairfield to Congress 115kV T-Line Project
Fairfield County, CT
Project Location

PRJ NUM: 2102261

APPENDIX C SHEET NUMBER: 35 OF 39



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Project Location

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1:1,200
1 inch = 100 feet

50 25 0 50 100 Feet

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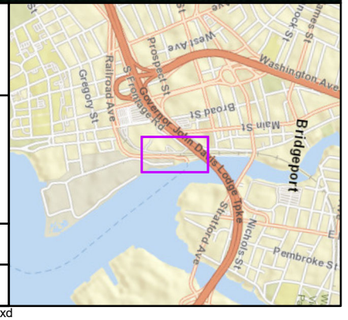
Fairfield to Congress 115kV T-Line Project
Fairfield County, CT
Project Location

DRAWN BY: SMS	**APPROVED BY:** WGW
Version: Version 3	**DATE:** 8/27/2022
Notes:	**PRJ NUM:** 2102261
	APPENDIX C SHEET NUMBER: 36 OF 39



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1:1,200
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Fairfield County, CT
Project Location

DRAWN BY: SMS	**APPROVED BY:** WGW
Version: Version 3	**DATE:** 8/27/2022
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PRJ NUM: 2102261

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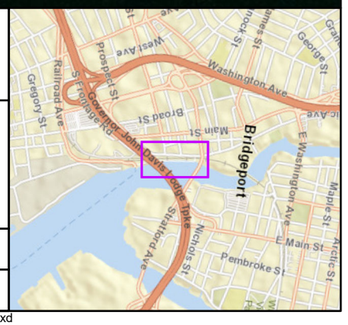

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1:1,200
1 inch = 100 feet

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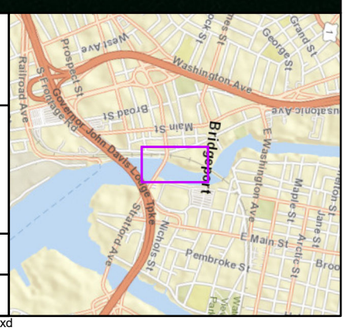
Fairfield County, CT
Project Location

DRAWN BY: SMS	**APPROVED BY:** WGW
Version: Version 3	**DATE:** 8/27/2022
Notes:	

PRJ NUM: 2102261

APPENDIX C SHEET NUMBER: 38 OF 39



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Project Location

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Project Location

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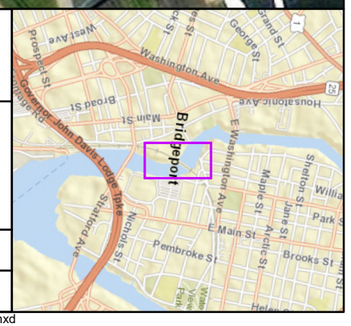
	APPENDIX C SHEET NUMBER: 39 OF 39



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1:30,000
1 inch = 2,500 feet

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Notes: Floodplain data sourced from FEMA NFHL Dataset

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Fairfield to Congress
115kV T-Line Project
Fairfield County, CT
USGS 7.5-Minute Topographic Quadrangle
Project Location Map

PRJ NUM: 2102261

APPENDIX A SHEET NUMBER: 1 OF 1



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Natural Diversity Data Base Areas

FAIRFIELD, CT

June 2019

State and Federal Listed Species

Critical Habitat

Town Boundary

NOTE: This map shows general locations of State and Federal Listed Species and Critical Habitats. Information on listed species is collected and compiled by the Natural Diversity Data Base (NDDB) from a variety of data sources . Exact locations of species have been buffered to produce the generalized locations.

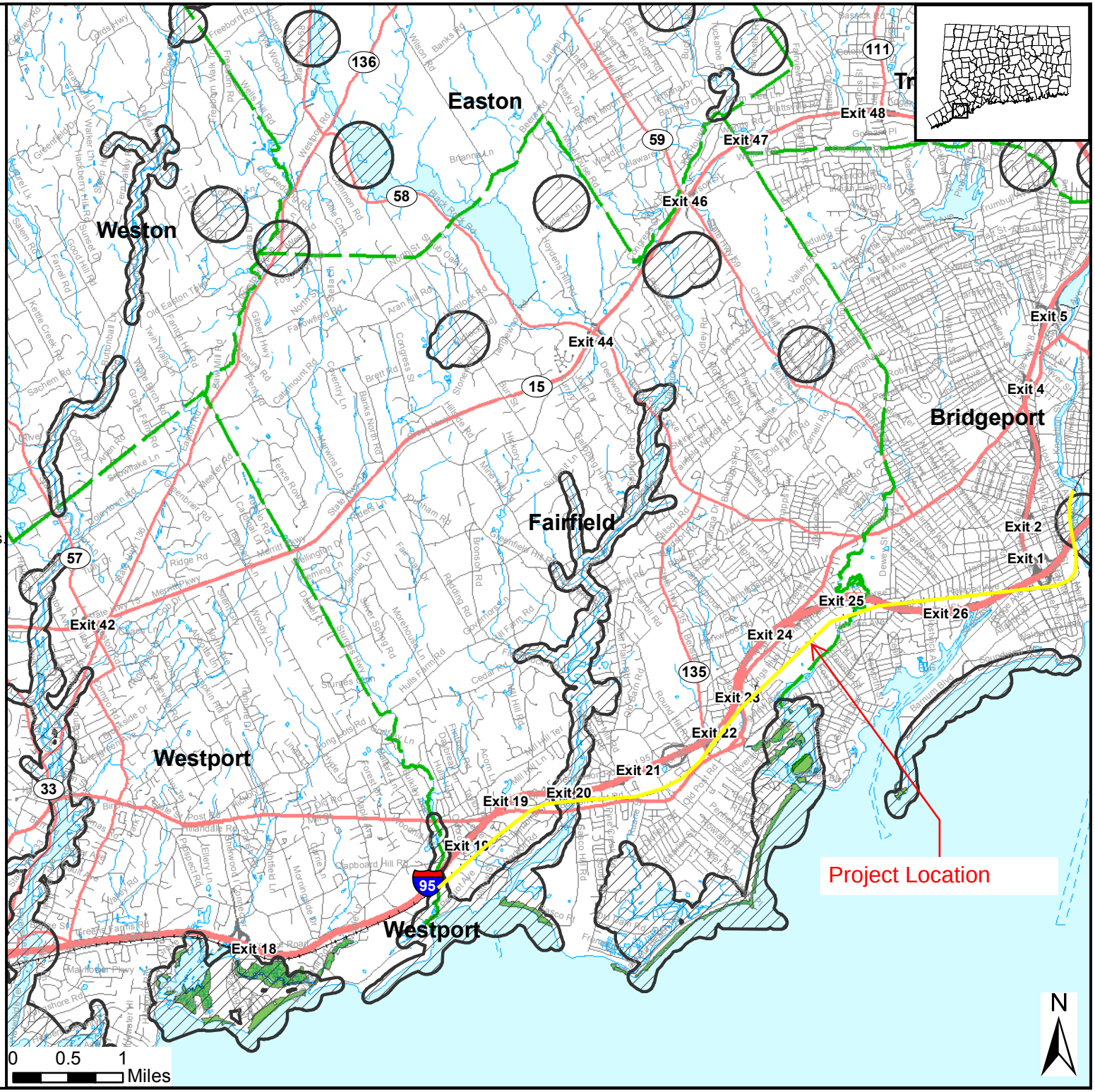
This map is intended for use as a preliminary screening tool for conducting a Natural Diversity Data Base Review Request. To use the map, locate the project boundaries and any additional affected areas. If the project is within a hatched area there may be a potential conflict with a listed species. For more information, complete a Request for Natural Diversity Data Base State Listed Species Review form (DEP-APP-007), and submit it to the NDDB along with the required maps and information. More detailed instructions are provided with the request form on our website.

www.ct.gov/deep/nddbrequest

Use the CTECO Interactive Map Viewers at www.cteco.uconn.edu to more precisely search for and locate a site and to view aerial imagery with NDDB Areas.

QUESTIONS: Department of Energy and Environmental Protection (DEEP)
79 Elm St, Hartford, CT 06106
email: deep.nddbrequest@ct.gov
Phone: (860) 424-3011

Connecticut Department of Energy & Environmental Protection
Bureau of Natural Resources
Wildlife Division



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APPENDIX: G U.S. Fish & Wildlife Service IPaC Report

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United States Department of the Interior

FISH AND WILDLIFE SERVICE
New England Ecological Services Field Office
70 Commercial Street, Suite 300
Concord, NH 03301-5094
Phone: (603) 223-2541 Fax: (603) 223-0104
http://www.fws.gov/newengland

IPaC Record Locator: 712-18167397 September 06, 2019

Subject: Consistency letter for the 'Sasco Creek to Congress Substation' project indicating that any take of the northern long-eared bat that may occur as a result of the Action is not prohibited under the ESA Section 4(d) rule adopted for this species at 50 CFR §17.40(o).

Dear Joseph Kempf:

The U.S. Fish and Wildlife Service (Service) received on September 06, 2019 your effects determination for the 'Sasco Creek to Congress Substation' (the Action) using the northern long-eared bat (*Myotis septentrionalis*) key within the Information for Planning and Consultation (IPaC) system. You indicated that no Federal agencies are involved in funding or authorizing this Action. This IPaC key assists users in determining whether a non-Federal action may cause "take"[1] of the northern long-eared bat that is prohibited under the Endangered Species Act of 1973 (ESA) (87 Stat.884, as amended; 16 U.S.C. 1531 et seq.).

Based upon your IPaC submission, any take of the northern long-eared bat that may occur as a result of the Action is not prohibited under the ESA Section 4(d) rule adopted for this species at 50 CFR §17.40(o). Unless the Service advises you within 30 days of the date of this letter that your IPaC-assisted determination was incorrect, this letter verifies that the Action is not likely to result in unauthorized take of the northern long-eared bat.

Please report to our office any changes to the information about the Action that you entered into IPaC, the results of any bat surveys conducted in the Action area, and any dead, injured, or sick northern long-eared bats that are found during Action implementation.

If your Action proceeds as described and no additional information about the Action's effects on species protected under the ESA becomes available, no further coordination with the Service is required with respect to the northern long-eared bat.

The IPaC-assisted determination for the northern long-eared bat **does not** apply to the following ESA-protected species that also may occur in your Action area:

- Red Knot, *Calidris canutus rufa* (Threatened)

You may coordinate with our Office to determine whether the Action may cause prohibited take of the animal species listed above.

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[1]Take means to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct [ESA Section 3(19)].

Action Description
You provided to IPaC the following name and description for the subject Action.

1. Name

Sasco Creek to Congress Substation

2. Description

The following description was provided for the project 'Sasco Creek to Congress Substation':

> The client is investigating upgrades to existing electric transmission lines and poles located within the CTDOT railroad right-of-way. These upgrades may involve the installation of multiple new transmission towers within or near the existing CTDOT railroad right-of-way between Fairfield and Bridgeport, CT. Anticipated construction equipment includes but is not limited to cranes, bucket trucks, pulling mechanisms for new wire, excavators, loaders, and construction support vehicles. Wetland resources will be field delineated and avoided to the extent practicable. Further avoidance and mitigation strategies will be developed as conceptual plans progress.

Approximate location of the project can be viewed in Google Maps: https://www.google.com/maps/place/41.154511552637345N73.24306436623502W



Determination Key Result

This non-Federal Action may affect the northern long-eared bat; however, any take of this species that may occur incidental to this Action is not prohibited under the final 4(d) rule at 50 CFR §17.40(o).

Determination Key Description: Northern Long-eared Bat 4(d) Rule
This key was last updated in IPaC on **May 15, 2017**. Keys are subject to periodic revision.

This key is intended for actions that may affect the threatened northern long-eared bat.

The purpose of the key for non-Federal actions is to assist determinations as to whether proposed actions are excepted from take prohibitions under the northern long-eared bat 4(d) rule.

If a non-Federal action may cause prohibited take of northern long-eared bats or other ESA-listed animal species, we recommend that you coordinate with the Service.

Determination Key Result

Based upon your IPaC submission, any take of the northern long-eared bat that may occur as a result of the Action is not prohibited under the ESA Section 4(d) rule adopted for this species at 50 CFR §17.40(o).

Qualification Interview

1. Is the action authorized, funded, or being carried out by a Federal agency?

   No

2. Will your activity purposefully **Take** northern long-eared bats?

   No

3. Is the project action area located wholly outside the White-nose Syndrome Zone?

   Automatically answered
   No

4. Have you contacted the appropriate agency to determine if your project is near a known hibernaculum or maternity roost tree?

   Location information for northern long-eared bat hibernacula is generally kept in state Natural Heritage Inventory databases – the availability of this data varies state-by-state. Many states provide online access to their data, either directly by providing maps or by providing the opportunity to make a data request. In some cases, to protect those resources, access to the information may be limited. A web page with links to state Natural Heritage Inventory databases is available at www.fws.gov/midwest/endangered/mammals/nleb/nhisites.html.

   Yes

5. Will the action affect a cave or mine where northern long-eared bats are known to hibernate (i.e., hibernaculum) or could it alter the entrance or the environment (physical or other alteration) of a hibernaculum?

   No

6. Will the action involve Tree Removal?

   No

Project Questionnaire

If the project includes forest conversion, report the appropriate acreages below. Otherwise, type '0' in questions 1-3.

1. Estimated total acres of forest conversion:

0

2. If known, estimated acres of forest conversion from April 1 to October 31

0

3. If known, estimated acres of forest conversion from June 1 to July 31

0

If the project includes timber harvest, report the appropriate acreages below. Otherwise, type '0' in questions 4-6.

4. Estimated total acres of timber harvest

0

5. If known, estimated acres of timber harvest from April 1 to October 31

0

6. If known, estimated acres of timber harvest from June 1 to July 31

0

If the project includes prescribed fire, report the appropriate acreages below. Otherwise, type '0' in questions 7-9.

7. Estimated total acres of prescribed fire

0

8. If known, estimated acres of prescribed fire from April 1 to October 31

0

9. If known, estimated acres of prescribed fire from June 1 to July 31

0

If the project includes new wind turbines, report the megawatts of wind capacity below. Otherwise, type '0' in question 10.

10. What is the estimated wind capacity (in megawatts) of the new turbine(s)?
0

Red Knot (*Calidris canutus*) - Birding Hotspots from EBird.org



ATTACHMENT B

NRCS Soils Data

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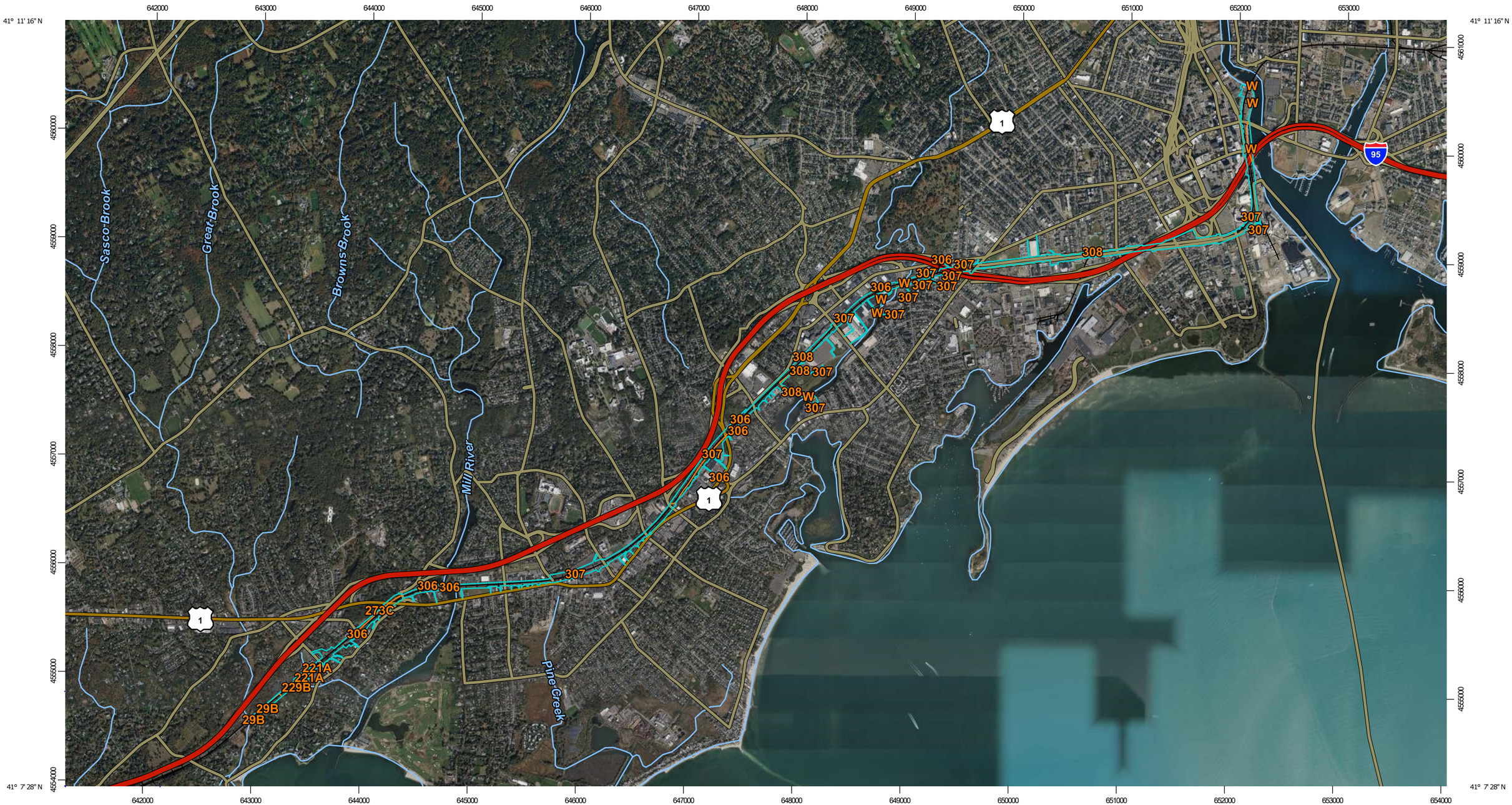
Soil Map—State of Connecticut
(Fairfield-Congress)



Map Scale: 1:34,400 if printed on B landscape (17" x 11") sheet.

N

0 500 1000 2000 3000 Meters

0 1500 3000 6000 9000 Feet

Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 18N WGS84

MAP LEGEND

Area of Interest (AOI)
- Area of Interest (AOI)

Soils
- Soil Map Unit Polygons
- Soil Map Unit Lines
- Soil Map Unit Points

Special Point Features
- Blowout
- Borrow Pit
- Clay Spot
- Closed Depression
- Gravel Pit
- Gravelly Spot
- Landfill
- Lava Flow
- Marsh or swamp
- Mine or Quarry
- Miscellaneous Water
- Perennial Water
- Rock Outcrop
- Saline Spot
- Sandy Spot
- Severely Eroded Spot
- Sinkhole
- Slide or Slip
- Sodic Spot
- Spoil Area
- Stony Spot
- Very Stony Spot
- Wet Spot
- Other
- Special Line Features

Water Features
- Streams and Canals

Transportation
- Rails
- Interstate Highways
- US Routes
- Major Roads
- Local Roads

Background
- Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:12,000.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL:
Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: State of Connecticut
Survey Area Data: Version 21, Sep 7, 2021

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Oct 4, 2020—Oct 31, 2020

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
29B	Agawam fine sandy loam, 3 to 8 percent slopes	0.0	0.0%
98	Westbrook mucky peat, 0 to 2 percent slopes, very frequently flooded	0.3	0.2%
221A	Ninigret-Urban land complex, 0 to 5 percent slopes	0.1	0.1%
229B	Agawam-Urban land complex, 0 to 8 percent slopes	3.7	2.1%
273C	Urban land-Charlton-Chatfield complex, rocky, 3 to 15 percent slopes	2.6	1.5%
306	Udorthents-Urban land complex	48.7	27.6%
307	Urban land	114.6	64.9%
308	Udorthents, smoothed	2.3	1.3%
W	Water	4.4	2.5%
Totals for Area of Interest		**176.7**	**100.0%**

Hydric Rating by Map Unit—State of Connecticut
(Fairfield-Congress)



Map Scale: 1:34,400 if printed on B landscape (17" x 11") sheet.

N

0 500 1000 2000 3000 Meters

0 1500 3000 6000 9000 Feet

Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 18N WGS84

MAP LEGEND

Area of Interest (AOI)

- Area of Interest (AOI)

Soils

Soil Rating Polygons

- Hydric (100%)
- Hydric (66 to 99%)
- Hydric (33 to 65%)
- Hydric (1 to 32%)
- Not Hydric (0%)
- Not rated or not available

Soil Rating Lines

- Hydric (100%)
- Hydric (66 to 99%)
- Hydric (33 to 65%)
- Hydric (1 to 32%)
- Not Hydric (0%)
- Not rated or not available

Soil Rating Points

- Hydric (100%)
- Hydric (66 to 99%)
- Hydric (33 to 65%)
- Hydric (1 to 32%)
- Not Hydric (0%)
- Not rated or not available

Water Features

- Streams and Canals

Transportation

- Rails
- Interstate Highways
- US Routes
- Major Roads
- Local Roads

Background

- Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:12,000.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL:
Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: State of Connecticut
Survey Area Data: Version 21, Sep 7, 2021

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Oct 4, 2020—Oct 31, 2020

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Hydric Rating by Map Unit

Map unit symbol	Map unit name	Rating	Acres in AOI	Percent of AOI
29B	Agawam fine sandy loam, 3 to 8 percent slopes	0	0.0	0.0%
98	Westbrook mucky peat, 0 to 2 percent slopes, very frequently flooded	100	0.3	0.2%
221A	Ninigret-Urban land complex, 0 to 5 percent slopes	2	0.1	0.1%
229B	Agawam-Urban land complex, 0 to 8 percent slopes	8	3.7	2.1%
273C	Urban land-Charlton-Chatfield complex, rocky, 3 to 15 percent slopes	5	2.6	1.5%
306	Udorthents-Urban land complex	0	48.7	27.6%
307	Urban land	0	114.6	64.9%
308	Udorthents, smoothed	0	2.3	1.3%
W	Water	0	4.4	2.5%
Totals for Area of Interest			**176.7**	**100.0%**

Description

This rating indicates the percentage of map units that meets the criteria for hydric soils. Map units are composed of one or more map unit components or soil types, each of which is rated as hydric soil or not hydric. Map units that are made up dominantly of hydric soils may have small areas of minor nonhydric components in the higher positions on the landform, and map units that are made up dominantly of nonhydric soils may have small areas of minor hydric components in the lower positions on the landform. Each map unit is rated based on its respective components and the percentage of each component within the map unit.

The thematic map is color coded based on the composition of hydric components. The five color classes are separated as 100 percent hydric components, 66 to 99 percent hydric components, 33 to 65 percent hydric components, 1 to 32 percent hydric components, and less than one percent hydric components.

In Web Soil Survey, the Summary by Map Unit table that is displayed below the map pane contains a column named 'Rating'. In this column the percentage of each map unit that is classified as hydric is displayed.

Hydric soils are defined by the National Technical Committee for Hydric Soils (NTCHS) as soils that formed under conditions of saturation, flooding, or ponding long enough during the growing season to develop anaerobic conditions in the upper part (Federal Register, 1994). Under natural conditions, these soils are either saturated or inundated long enough during the growing season to support the growth and reproduction of hydrophytic vegetation.

The NTCHS definition identifies general soil properties that are associated with wetness. In order to determine whether a specific soil is a hydric soil or nonhydric soil, however, more specific information, such as information about the depth and duration of the water table, is needed. Thus, criteria that identify those estimated soil properties unique to hydric soils have been established (Federal Register, 2002). These criteria are used to identify map unit components that normally are associated with wetlands. The criteria used are selected estimated soil properties that are described in "Soil Taxonomy" (Soil Survey Staff, 1999) and "Keys to Soil Taxonomy" (Soil Survey Staff, 2006) and in the "Soil Survey Manual" (Soil Survey Division Staff, 1993).

If soils are wet enough for a long enough period of time to be considered hydric, they should exhibit certain properties that can be easily observed in the field. These visible properties are indicators of hydric soils. The indicators used to make onsite determinations of hydric soils are specified in "Field Indicators of Hydric Soils in the United States" (Hurt and Vasilas, 2006).

References:

Federal Register. July 13, 1994. Changes in hydric soils of the United States.

Federal Register. September 18, 2002. Hydric soils of the United States.

Hurt, G.W., and L.M. Vasilas, editors. Version 6.0, 2006. Field indicators of hydric soils in the United States.

Soil Survey Division Staff. 1993. Soil survey manual. Soil Conservation Service. U.S. Department of Agriculture Handbook 18.

Soil Survey Staff. 1999. Soil taxonomy: A basic system of soil classification for making and interpreting soil surveys. 2nd edition. Natural Resources Conservation Service. U.S. Department of Agriculture Handbook 436.

Soil Survey Staff. 2006. Keys to soil taxonomy. 10th edition. U.S. Department of Agriculture, Natural Resources Conservation Service.

Rating Options

Aggregation Method: Percent Present

Component Percent Cutoff: None Specified

Tie-break Rule: Lower

Farmland Classification—State of Connecticut
(Fairfield-Congress Farmland Classification)



Map Scale: 1:34,400 if printed on B landscape (17" x 11") sheet.

N

0 500 1000 2000 3000 Meters

0 1500 3000 6000 9000 Feet

Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 18N WGS84

MAP LEGEND

Area of Interest (AOI)

- Area of Interest (AOI)

Soils

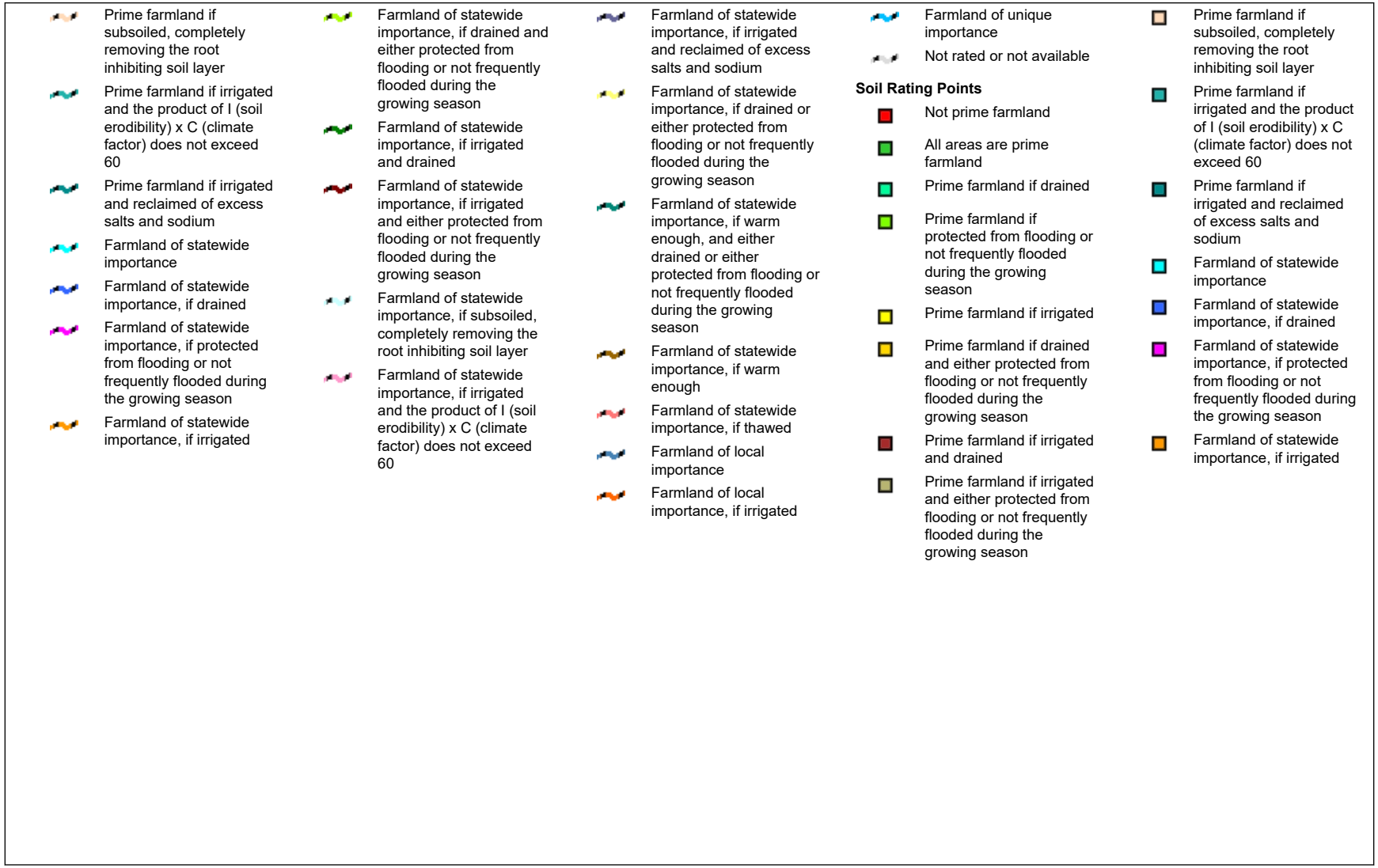
Soil Rating Polygons

- Not prime farmland
- All areas are prime farmland
- Prime farmland if drained
- Prime farmland if protected from flooding or not frequently flooded during the growing season
- Prime farmland if irrigated
- Prime farmland if drained and either protected from flooding or not frequently flooded during the growing season
- Prime farmland if irrigated and drained
- Prime farmland if irrigated and either protected from flooding or not frequently flooded during the growing season
- Prime farmland if subsoiled, completely removing the root inhibiting soil layer
- Prime farmland if irrigated and the product of I (soil erodibility) x C (climate factor) does not exceed 60
- Prime farmland if irrigated and reclaimed of excess salts and sodium
- Farmland of statewide importance
- Farmland of statewide importance, if drained
- Farmland of statewide importance, if protected from flooding or not frequently flooded during the growing season
- Farmland of statewide importance, if irrigated
- Farmland of statewide importance, if drained and either protected from flooding or not frequently flooded during the growing season
- Farmland of statewide importance, if irrigated and drained
- Farmland of statewide importance, if irrigated and either protected from flooding or not frequently flooded during the growing season
- Farmland of statewide importance, if subsoiled, completely removing the root inhibiting soil layer
- Farmland of statewide importance, if irrigated and the product of I (soil erodibility) x C (climate factor) does not exceed 60
- Farmland of statewide importance, if irrigated and reclaimed of excess salts and sodium
- Farmland of statewide importance, if drained or either protected from flooding or not frequently flooded during the growing season
- Farmland of statewide importance, if warm enough, and either drained or either protected from flooding or not frequently flooded during the growing season
- Farmland of statewide importance, if warm enough
- Farmland of statewide importance, if thawed
- Farmland of local importance
- Farmland of local importance, if irrigated
- Farmland of unique importance
- Not rated or not available

Soil Rating Lines

- Not prime farmland
- All areas are prime farmland
- Prime farmland if drained
- Prime farmland if protected from flooding or not frequently flooded during the growing season
- Prime farmland if irrigated
- Prime farmland if drained and either protected from flooding or not frequently flooded during the growing season
- Prime farmland if irrigated and drained
- Prime farmland if irrigated and either protected from flooding or not frequently flooded during the growing season

Farmland Classification—State of Connecticut
(Fairfield-Congress Farmland Classification)



- Farmland of statewide importance, if drained and either protected from flooding or not frequently flooded during the growing season
- Farmland of statewide importance, if irrigated and drained
- Farmland of statewide importance, if irrigated and either protected from flooding or not frequently flooded during the growing season
- Farmland of statewide importance, if subsoiled, completely removing the root inhibiting soil layer
- Farmland of statewide importance, if irrigated and the product of I (soil erodibility) x C (climate factor) does not exceed 60
- Farmland of statewide importance, if irrigated and reclaimed of excess salts and sodium
- Farmland of statewide importance, if drained or either protected from flooding or not frequently flooded during the growing season
- Farmland of statewide importance, if warm enough, and either drained or either protected from flooding or not frequently flooded during the growing season
- Farmland of statewide importance, if warm enough
- Farmland of statewide importance, if thawed
- Farmland of local importance
- Farmland of local importance, if irrigated
- Farmland of unique importance
- Not rated or not available

Water Features

- Streams and Canals

Transportation

- Rails
- Interstate Highways
- US Routes
- Major Roads
- Local Roads

Background

- Aerial Photography

The soil surveys that comprise your AOI were mapped at 1:12,000.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL:
Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: State of Connecticut
Survey Area Data: Version 21, Sep 7, 2021

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Oct 4, 2020—Oct 31, 2020

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Farmland Classification

Map unit symbol	Map unit name	Rating	Acres in AOI	Percent of AOI
29B	Agawam fine sandy loam, 3 to 8 percent slopes	All areas are prime farmland	0.0	0.0%
98	Westbrook mucky peat, 0 to 2 percent slopes, very frequently flooded	Not prime farmland	0.3	0.2%
221A	Ninigret-Urban land complex, 0 to 5 percent slopes	Not prime farmland	0.1	0.1%
229B	Agawam-Urban land complex, 0 to 8 percent slopes	Not prime farmland	3.7	2.1%
273C	Urban land-Charlton-Chatfield complex, rocky, 3 to 15 percent slopes	Not prime farmland	2.6	1.5%
306	Udorthents-Urban land complex	Not prime farmland	48.7	27.6%
307	Urban land	Not prime farmland	114.6	64.9%
308	Udorthents, smoothed	Not prime farmland	2.3	1.3%
W	Water	Not prime farmland	4.4	2.5%
Totals for Area of Interest			**176.7**	**100.0%**

Description

Farmland classification identifies map units as prime farmland, farmland of statewide importance, farmland of local importance, or unique farmland. It identifies the location and extent of the soils that are best suited to food, feed, fiber, forage, and oilseed crops. NRCS policy and procedures on prime and unique farmlands are published in the "Federal Register," Vol. 43, No. 21, January 31, 1978.

Rating Options

Aggregation Method: No Aggregation Necessary

Tie-break Rule: Lower

ATTACHMENT C

NDDB Determination Letters

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Connecticut Department of
ENERGY &
ENVIRONMENTAL
PROTECTION

79 Elm Street • Hartford, CT 06106-5127 www.ct.gov/deep Affirmative Action/Equal Opportunity Employer

January 28, 2022

Todd Berman
The United Illuminating Company
100 Marsh Hill Rd
Orange, CT 06477
todd.berman@uinet.com

NDDB DETERMINATION NUMBER: 202200482

Project: Fairfield - Congress Railroad 115-kV Transmission Line Upgrade; along CTDOT MNR ROW, from Sasco Creek in Fairfield to UI Congress Street substation in Bridgeport, CT

Expiration: January 28, 2024

I have reviewed Natural Diversity Database (NDDB) maps and files regarding this project. According to our records, there are State-listed species (RCSA Sec. 26-306) that may occur within, or be affected by the proposed project area.

Peregrine falcon (*Falco peregrinus*)- State Threatened
Location: I-95 bridge over the Pequonnock River in Bridgeport

his falcon nests from April through July and is very susceptible to human disturbance during this time. Peregrine falcons are very territorial during the breeding season and will make their presence known if in close proximity to a nest site. The wildlife division recommends a 660' setback from nests with no public access. To determine if a nest in your area is active this year contact the DEEP Wildlife Biologist coordinating Peregrine falcon monitoring (Brian.hess@ct.gov).

- Do not conduct work between April- July within 330 feet (approximately 100 meters) of active nests that are out of line of sight, or within 660 feet (approximately 200 meters) from nests that are in the line of sight of nests.

Blueback herring (*Alosa aestivalis*)- State Special Concern

There are records of Blueback herring (*Alosa aestivalis*) in the Mill River in Fairfield. If any in-water work is planned you may need to consult with a Fisheries Biologist. DEEP Fisheries Biologists are routinely involved in pre-application consultations with regulatory staff and applicants in order to identify potential fisheries issues and work with applicants to mitigate negative effects, including to endangered species. If you have not already talked with a Fisheries Biologist about your project, you may contact the Permit Analyst assigned to process your application for further information, including the contact information for the Fisheries Biologist assigned to review your application.

This is determination is valid for two years. Please submit an updated NDDB Request for Review if the scope of the proposed work changes or if work has not begun by expiration date.

Natural Diversity Database information includes all information regarding critical biological resources available to us at the time of the request. This information is a compilation of data collected over the years by the Department of Energy and Environmental Protection's Bureau of Natural Resources and

cooperating units of DEEP, independent conservation groups, and the scientific community. This information is not necessarily the result of comprehensive or site-specific field investigations. Consultations with the NDDB should not be substituted for on-site surveys required for environmental assessments. Current research projects and new contributors continue to identify additional populations of species and locations of habitats of concern, as well as, enhance existing data. Such new information is incorporated in the NDDB as it becomes available.

Please contact me if you have any questions (shannon.kearney@ct.gov). Thank you for consulting with the Natural Diversity Database and continuing to work with us to protect State-listed species.

Sincerely,

/s/ Shannon B. Kearney
Wildlife Biologist

Connecticut Department of
ENERGY &
ENVIRONMENTAL
PROTECTION

79 Elm Street • Hartford, CT 06106-5127 www.ct.gov/deep Affirmative Action/Equal Opportunity Employer

September 18, 2019

Donald Smith
BL Companies
355 Research Parkway
Meriden, CT 06450
dsmith@blcompanies.com

Project: Preliminary Assessment for Electric Transmission Line Upgrades between Sasco Creek in Fairfield to Congress Substation in Bridgeport, CT
NDDB Preliminary Assessment No.: 201910756

Dear Mr. Smith,

I have reviewed Natural Diversity Database maps and files regarding the area delineated on the map provided for a preliminary assessment of electric transmission line upgrades within the CTDOT railroad right-of-way between Sasco Creek in Fairfield to Congress Street Substation in Bridgeport, Connecticut. According to our records there are known extant populations of State Threatened Peregrine falcon (*Falco peregrinus*) and State Special Concern Blueback herring (*Alosa aestivalis*) that occur within the boundaries of this project.

A pair of Peregrine falcons (*Falco peregrinus*) are known to nest on the I-95 bridge over the Pequonnock River in Bridgeport. Work in this area will be restricted to the non-nesting season, generally August through March.

There are records of Blueback herring (*Alosa aestivalis*) in the Mill River in Fairfield. If any in-water work is planned you may need to consult with a Fisheries Biologist. DEEP Fisheries Biologists are routinely involved in pre-application consultations with regulatory staff and applicants in order to identify potential fisheries issues and work with applicants to mitigate negative effects, including to endangered species. If you have not already talked with a Fisheries Biologist about your project, you may contact the Permit Analyst assigned to process your application for further information, including the contact information for the Fisheries Biologist assigned to review your application.

Please be advised that this is a preliminary review and not a final determination. A more detailed review will be necessary to move forward with any environmental permit applications submitted to DEEP for the proposed project. **This preliminary assessment letter cannot be used or submitted with permit applications at DEEP**. This letter is valid for one year.

To prevent impacts to State-listed species, field surveys of the site should be performed by a qualified biologist with the appropriate scientific collecting permits at a time when these target species are identifiable. A report summarizing the results of such surveys should include:

1. Survey date(s) and duration
2. Site descriptions and photographs
3. List of component vascular plant and animal species within the survey area (including scientific binomials)

4. Data regarding population numbers and/or area occupied by State-listed species
5. Detailed maps of the area surveyed including the survey route and locations of State listed species
6. Conservation strategies or protection plans that indicate how impacts may be avoided for all state listed species present on the site
7. Statement/résumé indicating the biologist's qualifications. Please be sure when you hire a consulting qualified biologist to help conduct this site survey that they have the proper experience with target taxon and have a CT scientific collectors permit to work with state listed species for this specific project.

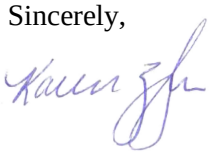
The site surveys report should be sent to our CT DEEP-NDDB Program (deep.nddbrequest@ct.gov) for further review by our program biologists along with an updated request for another NDDB review. Incomplete reports may not be accepted.

If you do not intend to do site surveys to determine the presence or absence of state-listed species, then you should presume species are present and let us know how you will protect the state-listed species from being impacted by this project. You may submit these best management practices or protection plans with your new request for an NDDB review. After reviewing your new NDDB request form and the documents describing how you will protect this species from project impacts we will make a final determination and provide you with a letter from our program to use with DEEP-Permits.

Natural Diversity Database information includes all information regarding critical biological resources available to us at the time of the request. This information is a compilation of data collected over the years by the Department of Energy and Environmental Protection's Natural History Survey, cooperating units of DEEP, landowners, private conservation groups and the scientific community. This information is not necessarily the result of comprehensive or site-specific field investigations. Consultations with the NDDB should not be substitutes for onsite surveys necessary for a thorough environmental impact assessment. The result of this review does not preclude the possibility that listed species may be encountered on site and that additional action may be necessary to remain in compliance with certain state permits.

Please contact me if you have further questions at (860) 424-3378, or karen.zyko@ct.gov . Thank you for consulting the Natural Diversity Data Base.

Sincerely,



Karen Zyko
Environmental Analyst

ATTACHMENT D

USFWS Species List

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United States Department of the Interior

FISH AND WILDLIFE SERVICE
New England Ecological Services Field Office
70 Commercial Street, Suite 300
Concord, NH 03301-5094
Phone: (603) 223-2541 Fax: (603) 223-0104

In Reply Refer To:
Project Code: 2022-0019924
Project Name: Fairfield to Congress Rebuild

August 23, 2022

Subject: List of threatened and endangered species that may occur in your proposed project location or may be affected by your proposed project

To Whom It May Concern:

Please review this letter each time you request an Official Species List, we will continue to update it with additional information and links to websites may change.

About Official Species Lists

The purpose of the Act is to provide a means whereby threatened and endangered species and the ecosystems upon which they depend may be conserved. Federal and non-Federal project proponents have responsibilities under the Act to consider effects on listed species.

The enclosed species list identifies threatened, endangered, proposed, and candidate species, as well as proposed and final designated critical habitat, that may occur within the boundary of your proposed project and/or may be affected by your proposed project. The species list fulfills the requirements of the U.S. Fish and Wildlife Service (Service) under section 7(c) of the Endangered Species Act (Act) of 1973, as amended (16 U.S.C. 1531 et seq.).

New information based on updated surveys, changes in the abundance and distribution of species, changed habitat conditions, or other factors could change this list. Please note that under 50 CFR 402.12(e) of the regulations implementing section 7 of the Act, the accuracy of this species list should be verified after 90 days. The Service recommends that verification be completed by visiting the ECOS-IPaC website at regular intervals during project planning and implementation for updates to species lists and information. An updated list may be requested by returning to an existing project's page in IPaC.

Endangered Species Act Project Review

Please visit the "**New England Field Office Endangered Species Project Review and Consultation**" website for step-by-step instructions on how to consider effects on listed

species and prepare and submit a project review package if necessary:

https://www.fws.gov/office/new-england-ecological-services/endangered-species-project-review

NOTE Please do not use the **Consultation Package Builder** tool in IPaC except in specific situations following coordination with our office. Please follow the project review guidance on our website instead and reference your **Project Code** in all correspondence.

Northern Long-eared Bat Update - Additionally, please note that on March 23, 2022, the Service published a proposal to reclassify the northern long-eared bat (NLEB) as endangered under the Endangered Species Act. The U.S. District Court for the District of Columbia has ordered the Service to complete a new final listing determination for the NLEB by November 2022 (Case 1:15-cv-00477, March 1, 2021). The bat, currently listed as threatened, faces extinction due to the range-wide impacts of white-nose syndrome (WNS), a deadly fungal disease affecting cave-dwelling bats across the continent. The proposed reclassification, if finalized, would remove the current 4(d) rule for the NLEB, as these rules may be applied only to threatened species. Depending on the type of effects a project has on NLEB, the change in the species' status may trigger the need to re-initiate consultation for any actions that are not completed and for which the Federal action agency retains discretion once the new listing determination becomes effective (anticipated to occur by December 30, 2022). If your project may result in incidental take of NLEB after the new listing goes into effect this will first need to be addressed in an updated consultation that includes an Incidental Take Statement. If your project may require re-initiation of consultation, please contact our office for additional guidance.

Additional Info About Section 7 of the Act
Under section 7(a)(2) of the Act and its implementing regulations (50 CFR 402 et seq.), Federal agencies are required to determine whether projects may affect threatened and endangered species and/or designated critical habitat. If a Federal agency, or its non-Federal representative, determines that listed species and/or designated critical habitat may be affected by the proposed project, the agency is required to consult with the Service pursuant to 50 CFR 402. In addition, the Federal agency also may need to consider proposed species and proposed critical habitat in the consultation. 50 CFR 402.14(c)(1) specifies the information required for consultation under the Act regardless of the format of the evaluation. More information on the regulations and procedures for section 7 consultation, including the role of permit or license applicants, can be found in the "Endangered Species Consultation Handbook" at:

https://www.fws.gov/service/section-7-consultations

In addition to consultation requirements under Section 7(a)(2) of the ESA, please note that under sections 7(a)(1) of the Act and its implementing regulations (50 CFR 402 et seq.), Federal agencies are required to utilize their authorities to carry out programs for the conservation of threatened and endangered species. Please contact NEFO if you would like more information.

Candidate species that appear on the enclosed species list have no current protections under the

ESA. The species' occurrence on an official species list does not convey a requirement to consider impacts to this species as you would a proposed, threatened, or endangered species. The ESA does not provide for interagency consultations on candidate species under section 7, however, the Service recommends that all project proponents incorporate measures into projects to benefit candidate species and their habitats wherever possible.

Migratory Birds

In addition to responsibilities to protect threatened and endangered species under the Endangered Species Act (ESA), there are additional responsibilities under the Migratory Bird Treaty Act (MBTA) and the Bald and Golden Eagle Protection Act (BGEPA) to protect native birds from project-related impacts. Any activity, intentional or unintentional, resulting in take of migratory birds, including eagles, is prohibited unless otherwise permitted by the U.S. Fish and Wildlife Service (50 C.F.R. Sec. 10.12 and 16 U.S.C. Sec. 668(a)). For more information regarding these Acts see:

https://www.fws.gov/program/migratory-bird-permit

https://www.fws.gov/library/collections/bald-and-golden-eagle-management

Please feel free to contact us at **newengland@fws.gov** with your **Project Code** in the subject line if you need more information or assistance regarding the potential impacts to federally proposed, listed, and candidate species and federally designated and proposed critical habitat.

Attachment(s): Official Species List

Attachment(s):

- Official Species List

Official Species List

This list is provided pursuant to Section 7 of the Endangered Species Act, and fulfills the requirement for Federal agencies to "request of the Secretary of the Interior information whether any species which is listed or proposed to be listed may be present in the area of a proposed action".

This species list is provided by:

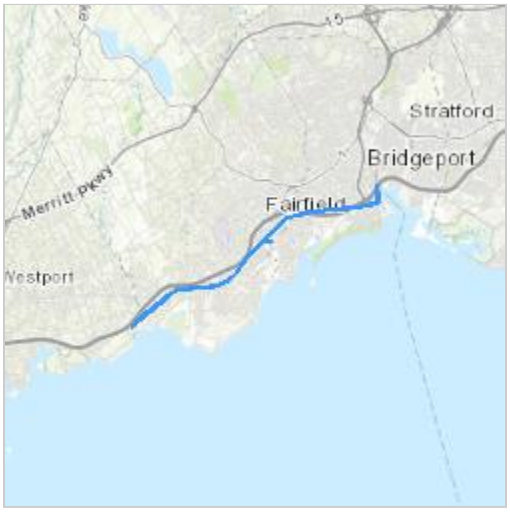
New England Ecological Services Field Office
70 Commercial Street, Suite 300
Concord, NH 03301-5094
(603) 223-2541

Project Summary

Project Code: 2022-0019924
Project Name: Fairfield to Congress Rebuild
Project Type: Transmission Line - New Constr - Above Ground
Project Description: UI is investigating upgrades to existing electric transmission lines and poles located within the CT DOT railroad ROW. These upgrades involve the installation of new monopole structures within or near the existing CT DOT railroad ROW between Fairfield and Bridgeport, CT.

Project Location:

Approximate location of the project can be viewed in Google Maps: https://www.google.com/maps/@41.152500700000004,-73.2456563832737,14z



Counties: Fairfield County, Connecticut

Endangered Species Act Species

There is a total of 4 threatened, endangered, or candidate species on this species list.

Species on this list should be considered in an effects analysis for your project and could include species that exist in another geographic area. For example, certain fish may appear on the species list because a project could affect downstream species.

IPaC does not display listed species or critical habitats under the sole jurisdiction of NOAA Fisheries[1], as USFWS does not have the authority to speak on behalf of NOAA and the Department of Commerce.

See the "Critical habitats" section below for those critical habitats that lie wholly or partially within your project area under this office's jurisdiction. Please contact the designated FWS office if you have questions.

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1. NOAA Fisheries, also known as the National Marine Fisheries Service (NMFS), is an office of the National Oceanic and Atmospheric Administration within the Department of Commerce.

Mammals

NAME	STATUS
Northern Long-eared Bat *Myotis septentrionalis* No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/9045	Threatened

Birds

NAME	STATUS
Red Knot *Calidris canutus rufa* There is **proposed** critical habitat for this species. The location of the critical habitat is not available. Species profile: https://ecos.fws.gov/ecp/species/1864	Threatened
Roseate Tern *Sterna dougallii dougallii* Population: Northeast U.S. nesting population No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/2083	Endangered

Insects

NAME	STATUS
Monarch Butterfly *Danaus plexippus* No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/9743	Candidate

Critical habitats

THERE ARE NO CRITICAL HABITATS WITHIN YOUR PROJECT AREA UNDER THIS OFFICE'S JURISDICTION.

IPaC User Contact Information

Agency:	LaBella Associates
Name:	Meredith Ellis
Address:	LaBella Associates
Address Line 2:	4 British American Boulevard
City:	Latham
State:	NY
Zip:	12110
Email	mellis@labellapc.com
Phone:	5189038386