

H. EXISTING CONDITIONS

An *Existing Conditions Map*, depicting current conditions on the Property, its access, abutting properties, and several key features discussed herein, is provided as Figure H-1. The purpose of this section is to describe current conditions on the Property. A detailed discussion of the Substation's effects on the environment is provided in Section K of this document.

H.1. Existing Development

The Property encompasses approximately 2.56 acres. The parcel is identified by the Westport Assessor's Office on Map G06 as Lot 5. The Property was purchased by CL&P on June 18, 2008, specifically for this Project. According to the Tax Assessor's field card, the Property is zoned "AAA", which is defined by the Town of Westport as a "Residential District."

A single-family residence (built in 1966) and a bituminous driveway exist on the Property. On-site topography can be characterized as generally sloping down from east to west with elevations ranging between 24 and 8 feet above mean sea level. The eastern part of the Site is elevated approximately four feet above the grade of New Creek Road, and is relatively flat. The site slopes downward approximately ten feet towards the western side of the lot where a wetland traverses from north to south.

Surrounding land use consists of an interstate highway, railroad, residential and undeveloped properties. The Site is located immediately south of a multi-use transportation and energy infrastructure corridor, consisting of existing overhead transmission lines, railroad tracks, commuter parking lots and I-95. The existing commuter railroad is located along the northern Property boundary at a grade approximately 10 to 12 feet above the Property.

Figure H-1: Existing Conditions Map



The Greens Farms train station is located to the east across New Creek Road. New Creek Road abuts the Property to the south; a tidal wetland area and the Greens Farms Brook are located farther to the south across New Creek Road. A residential property abuts the Property to the west. Figure H-2 (*Nearest Residences*) depicts the locations and distances of surrounding residences to the Substation.

Several alternate site locations along the transmission line corridor were evaluated for development of the Substation (see Section I, *Alternative Sites Evaluated*). For the following reasons, the Property is well suited for the Sherwood Substation:

- Two existing 115-kV transmission lines are located immediately to the north, providing for a direct connection without the need for substantial additional infrastructure and/or rights-of-way (“ROW”) with associated clearing;
- There are optimal interconnection opportunities to existing distribution feeders along New Creek Road, Greens Farms Road, Beachside Avenue, and Maple Lane;
- The Property has sufficient size and shape and access from a local road; and
- Construction can be completed and the Substation can be operated with minimal effects on the surrounding environment.

H.2. Site Access

The Site has frontage along New Creek Road.

H.3. Wetlands and Watercourses

A palustrine forested/emergent wetland system transects the Property from north to south. This wetland is seasonally inundated with diffuse surface water flows conveyed from north to south. The northern portion is ponded, likely resulting from a historic, man-made earthen impoundment located centrally within this system. This system originates in the vicinity of the northern Site boundary at the base of a large fill slope associated with the Metro-North rail line; however, no inlet structure or other source of inputs was visibly evident. The hydrology for this system likely originates from surface flows and groundwater interception. At its southern extent, flows become channelized within a watercourse feature before outleting into a 15-inch reinforced concrete pipe located on the southern Site boundary. Flows are then conveyed from this freshwater system beneath New Creek Road to a tidal salt marsh associated with Greens Farms Brook to the south. The on-site freshwater wetland is not subject to tidal influence due to its elevation and separation from the tidal wetland. Dominant vegetation includes red maple (*Acer rubrum*), white ash (*Fraxinus Americana*), cattail (*Typha latifolia*), silky dogwood (*Cornus amomum*), sensitive fern (*Onoclea sensibilis*) and tussock sedge (*Carex stricta*).

A tidal salt marsh wetland system exists across New Creek Road to the south and east. The tidal wetland boundary nearest the Property is generally identified by the toe of fill slope associated with the embankment of New Creek Road. This tidal salt marsh wetland system is bisected by Maple Lane. The marsh habitats are connected by a culvert under Maple Lane that conveys flows from Greens Farms Brook (a.k.a., New Creek). Both salt marsh systems border

on this tidal perennial watercourse. The tidal wetland edge has been historically disturbed by fill material generally associated with the New Creek Road and Maple Lane road embankments. This disturbance is reflected in the dominance of common reed (*Phragmites australis*), a non-native invasive species, and indicative of the historic disturbances in these locals. The interior of these marsh habitats are dominated by native salt marsh grasses and forbs.

Wetlands were delineated by a Registered Soil Scientist at Vanasse Hangen Brustlin, Inc. on February 6, 2009 and May 4, 2009. Details of the wetland delineations are included in Volume II, Exhibit 3, *Wetlands Delineation Report* and *Tidal Wetlands Delineation Report*.

As described in Section 7.3 of the *Regulations for the Protection and Preservation of Wetlands and Watercourses*, The Town of Westport, established upland review areas associated with wetlands and watercourses that vary based on the proposed activity. Although no clear category applies directly to substations, 50 feet has been established for construction of new single-family residences, air conditioning units and power generators; and, 75 feet for commercial structures and industrial uses.

H.4. Vegetation and Wildlife

In addition to the wetland vegetation, the Site is currently vegetated with mature trees, including: white pine (*Pinus strobus*), red oak (*Quercus rubra*), sycamore (*Platanus occidentalis*), black locust (*Robinia pseudoacacia*), black cherry (*Prunus serotina*), white ash (*Fraxinus Americana*), and red maple (*Acer rubrum*). Landscaped shrubs, including juniper (*Juniperus communis*), rhododendron (*Rhododendron*), yew (*Taxus canadensis*), and burning bush (*Euonymus alatus*) exist primarily west of the house on the upland slope adjacent to the wetlands. Lawn (grassed) areas surround the on-site residence.

Being located in a mixed land use setting, the Property likely supports transient wildlife common to Connecticut's coastal communities. No significant or extensive wildlife habitat exists on the 2.56-acre parcel, which is surrounded on three sides by transportation corridors (including the railroad to the north and New Creek Road to the east and south).

H.5. Rare, Threatened, and Endangered Species

CL&P reviewed the Connecticut Department of Environmental Protection ("CTDEP") Natural Diversity Database (NDDDB) which identifies general areas of concern with regard to state and federally listed endangered, threatened, and special concern species and significant natural communities. No areas of concern with regard to threatened or endangered species and/or significant natural communities were identified at or in the vicinity of the Site. Further, CL&P submitted a letter request on May 19, 2008 to the CTDEP for concurrence of its preliminary findings. CL&P received written confirmation on June 19, 2008 that no known extant populations of federal or state endangered, threatened, and special concern species occur at the Property.

CL&P also reviewed the most recent update (December 2009) to the NDDDB to determine what, if any, new data may have been added to the inventory since 2008. Consistent with the 2008 information, no state endangered, threatened or special concern species were identified at the Property. The nearby Greens Farms Brook Marsh, located to the south of the Site, had been added to the NDDDB since 2008.

The *CTDEP Correspondence* is provided in Volume II, Exhibit 4.

H.6. Water Supply Areas

Groundwater below and near the Property is classified by the CTDEP as a GB groundwater area. GB is defined as groundwater within a historically highly urbanized area or an area of intense industrial activity and where public water supply service is available. Such groundwater may not be suitable for human consumption without treatment due to waste discharges, spills or leaks of chemicals or land use impacts. Properties along New Creek Road and in the vicinity are provided potable water by the Aquarian Water Company.

The Greens Farms Brook, located south of the Property across New Creek Road, is classified as “B”. These surface waters are designated for: habitat for fish and other aquatic life and wildlife; recreation; navigation; and industrial and agricultural water supply.

There are no public water supply wells within a two-mile radius of the Site. The Property is not located within an Aquifer Protection Area.

H.7. Scenic Areas

Based on information contained in the Town of Westport’s 2007 Plan of Conservation and Development, the Property is depicted on a Scenic Resources Map as being located within a scenic area that encompasses the Town’s coastline. No scenic views are identified at the Site or within its immediate vicinity. Beachside Avenue, located approximately 0.25 mile to the south, is listed as a locally-designated scenic road.

H.8. Historic and Archaeological Resources

Results of a preliminary Cultural Resources Reconnaissance Survey revealed that four previous archaeological investigations were completed in the vicinity of the Property and six

single archaeological sites had been recorded in the area. The previous investigations documented use of the area by Native Americans. Review of available historic maps and aerial images of the area dating back to 1856 suggests that the Property consisted of an undeveloped, likely wooded, piece of land throughout the mid-nineteenth century up until 1966, when the residence was built.

Subsurface investigation was conducted to determine whether cultural resources are present at the Site. Fieldwork for this investigation consisted of pedestrian survey, systematic subsurface testing, mapping, and photo-documentation.

Additional archaeological investigation of the Project area (i.e., the 1.0± acre proposed for the Substation) was undertaken in the form of excavation of 10 shovel test pits. The shovel test pits were excavated at 50-foot intervals along three survey transects spaced 50 feet apart. During examination of the Site, no evidence of cultural features and no cultural material were identified within any of the completed shovel tests. As a result, no additional testing of the Project area was recommended.

CL&P submitted documentation of the archaeological survey prepared by Heritage Consultants, LLC for determination from the SHPO regarding the potential effect or no effect of the Project on cultural resources on May 19, 2009. The SHPO responded in writing on May 21, 2009 that the Project boundaries lack historical and architectural importance and that no additional archaeological investigation is warranted with respect to the proposed undertaking. As recommended by the SHPO, Heritage Consultants, LLC will consult with the Office of State Archaeology at the University of Connecticut (Storrs) concerning the professional transfer of all

field notes, photographs, and artifactual materials generated by the archaeological investigations. *SHPO Correspondence* is provided in Volume II, Exhibit 5.

H.9. Natural Resources

Site bedrock and surficial geology was determined by reviewing the Environmental GIS Data for Connecticut 2003 Edition compiled by the CTDEP. Bedrock geology underlying the majority of the Property is mapped as Golden Hill Schist, a gray to silvery, medium to course grained schist and granofels. No bedrock outcroppings are visibly apparent on the Site. Surficial soils at the Property are mapped as sand, which is composed mainly of very course-to-fine sand and is commonly in well sorted layers.

H.10. Floodplain Areas

Portions of the Site are located within the 100-year floodplain (located at 11 feet above sea level) and 500-year floodplain, based on the National Geodetic Vertical Datum of 1929 as depicted on *FEMA Map*, Panel Number 090019 0002B, revised December 4, 1984. However, the activities associated with the Substation would be located entirely outside of the 100-year and 500-year floodplains. No coastal velocity flood zones are mapped on the Site or nearby salt marsh.

H.11. Recreational Areas

There are no recreational areas directly abutting the Property. However, several recreational areas are located within a one mile radius of the Property. Greens Farms Academy (which has athletic fields), Burying Hill Beach and Sherwood Island State Park are located to the south and southwest within one-quarter mile of the Property.

H.12. Seismic Areas

The USGS-National Earthquake Reduction Program has developed a series of maps that depict the estimated probability that certain levels of ground shaking from an earthquake will occur within a given period of time. USGS takes into account the seismic history of an area and the expected decrease in intensity with distance from the epicenter. Based on a review of USGS-National Earthquake Reduction Program maps and information obtained by the Weston (MA) Observatory (a geophysical research laboratory), there are no seismic areas located at the Property or within its immediate area.

H.13. Noise

The Property includes a single family residence. Existing noise levels emanating from the Property are below those established for residential areas by the CTDEP's noise control regulations (RCSA Title 22a, §22a-69-1 to 22a-69-7.4). Contributing factors for noise generation in the area are traffic noises generated from the adjacent railroad, I-95 and the surrounding local road system.

H.14. Lighting

Currently, lighting facilities present on the Property are limited to those associated with the single family residence.

H.15. Coastal Zone Management Areas

As defined in Conn. Gen. Stat. § 22a-94(a), the Connecticut Coastal Area includes the land and water within numerous towns, including the Town of Westport. A subset of the Coastal Area, called the Coastal Boundary, represents an area within which activities regulated or conducted by coastal municipalities must be consistent with the Coastal Management Act. The Property is located within the Coastal Boundary.

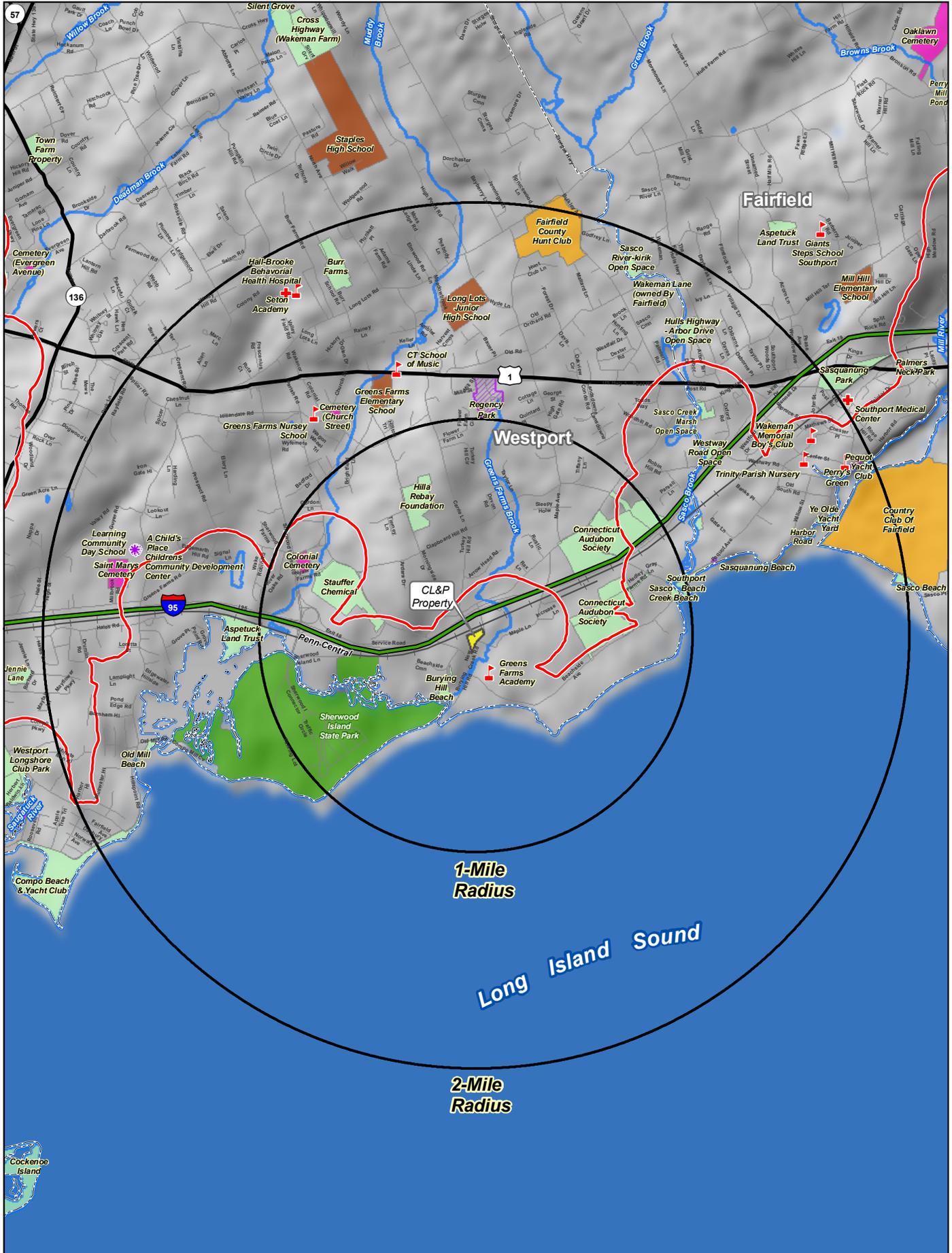
H.16. Other Surrounding Features

Table H-1 lists non-residential features within two miles of the Property. Figure H-3 (*Surrounding Features*) depicts the nearest locations of non-residential development.

Table H-1: Non-Residential Features within Two Miles of the Property in Westport

Name	Address (all locations in Westport, except where noted)	Location from Property
Schools		
Greens Farms Academy	35 Beachside Avenue	0.2 mile southeast
Greens Farms Elementary School	17 Morningside Drive	1.2 miles northwest
Long Lots Elementary School	13 Hyde Lane	1.5 miles north
Learning Community Day School	90 Hillspoint Road	1.6 miles west
Hillspoint Pre-School	90 Hillspoint Road	1.6 miles west
Child Daycare Facilities		
Greens Farms Nursery School	71 Hillandale Road	1.2 miles northwest
Trinity Parish Nursery	55 Myrtle Avenue, Fairfield	1.75 miles northeast
Playgrounds		
Greens Farms Elementary School	17 Morningside Drive	1.2 miles northwest
Hospitals		
Southport Medical Center	1735 Post Road, Fairfield	2 miles northeast
Parks/Beaches		
Burying Hill Beach	Burying Hill Road	0.25 mile southwest
Sherwood Island State Park	Sherwood Island Connector	0.25 mile south
Southport Beach	Pequot Avenue, Fairfield	1.0 mile northeast
Sasco Creek Beach	Sasco Beach Road, Fairfield	1.0 mile northeast
Group Homes		none identified within two miles
Licensed Youth Camps		none identified within two miles
Hunting or Wildlife Management Areas		none within two miles

Figure H-3: Surrounding Features



Legend:

- CL&P Property Boundary
- Coastal Boundary
- Watercourse
- Railroad
- Town Boundary
- ▲ School
- ✳ Daycare
- + Hospital
- State Park
- CTDEP Municipal Property/Open Space
- School
- Cemetery
- General Recreation
- Existing Preserved Open Space
- Uncategorized