

# ATTACHMENT 9



Connecticut Department of  
**ENERGY &  
ENVIRONMENTAL  
PROTECTION**

Bureau of Natural Resources  
Wildlife Division  
Natural History Survey – Natural Diversity Data Base

August 24, 2015

Mr. Dean Gustafson  
Senior Environmental Scientist  
All-Points Technology Corporation, P.C.  
30 Bogg Lane  
Lebanon, CT 06249

Regarding: East Lyme Relo. CT1345 (Candidate C), 351A Boston Post Road, East Lyme – telecommunications facility - Natural Diversity Data Base 201504836

Dear Mr. Gustafson:

In response to your request for a Natural Diversity Data Base (NDDB) Review of State-listed Endangered, Threatened, and Special Concern Species for East Lyme Relo. CT1345 (Candidate C) in East Lyme, our records indicate the following extant populations of species on or within the vicinity of the site:

Red bat (*Lasiurus borealis*) Protection Status: Species of Special Concern

Red bats are considered to be “tree-roosting” bats. They roost out in the foliage of deciduous and coniferous trees, camouflaged as dead leaves or cones. Red bats are primarily solitary roosters. They can be found roosting and feeding around forest edges and clearings. Typically, larger diameter trees (12-inch DBH and larger) are more valuable to these bats. Additionally, trees with loose, rough bark such as maples, hickories, and oaks are more desirable than other tree species due to the increased cover that the loose bark provides. Large trees with cavities are also utilized by this species.

Recommendations: If tree cutting is part of this project, work should be conducted in the winter when the bats are not in the area, specifically work should not be conducted after May 1<sup>st</sup> through August 15<sup>th</sup>. Long-term impacts can be minimized by retaining large diameter coniferous and deciduous trees whenever possible. If these bats are found, please report the information to the Wildlife Division.

The Natural Diversity Data Base 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 and cooperating units of DEEP, private conservation groups and the scientific community. This information is not necessarily the result of comprehensive or site-specific field investigations. Please be advised that consultations with the Data Base 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 into the Data Base as it becomes available. If the project is not implemented within 12 months, then another Natural Diversity Data Base review should be requested for up-to-date information.

Please be advised that any subsequent environmental permit applications submitted to DEEP for this site, may require a more detailed review. Thank you for consulting the Natural Diversity Data Base. If you have any additional questions, I can be contact by email at [Elaine.Hinsch@ct.gov](mailto:Elaine.Hinsch@ct.gov).

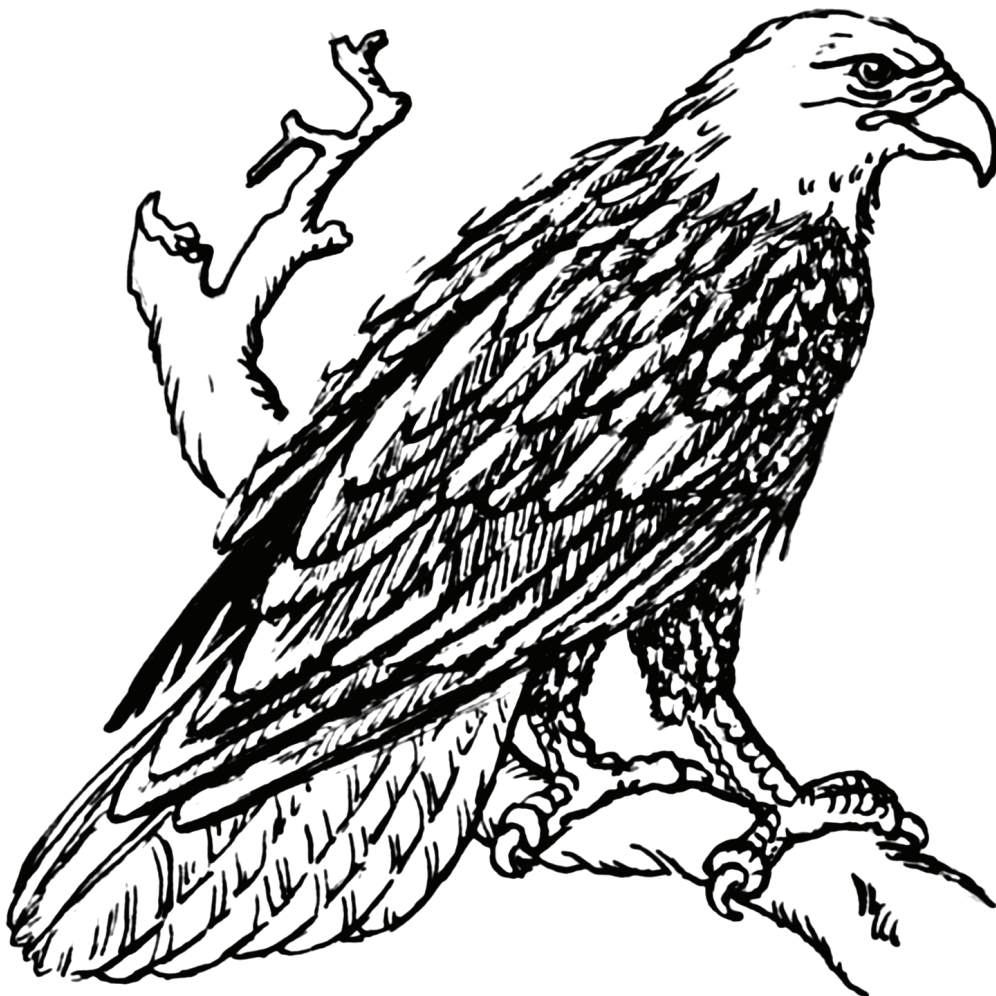
Sincerely,  
/s/  
Elaine Hinsch  
Program Specialist II  
Wildlife Division

# Proposed Wireless Telecommunications Facility East Lyme Relo

---

## *IPaC Trust Resource Report*

Generated June 03, 2015 01:21 PM MDT



US Fish &amp; Wildlife Service

# IPaC Trust Resource Report



## Project Description

### NAME

Proposed Wireless  
Telecommunications Facility East  
Lyme Relo

### PROJECT CODE

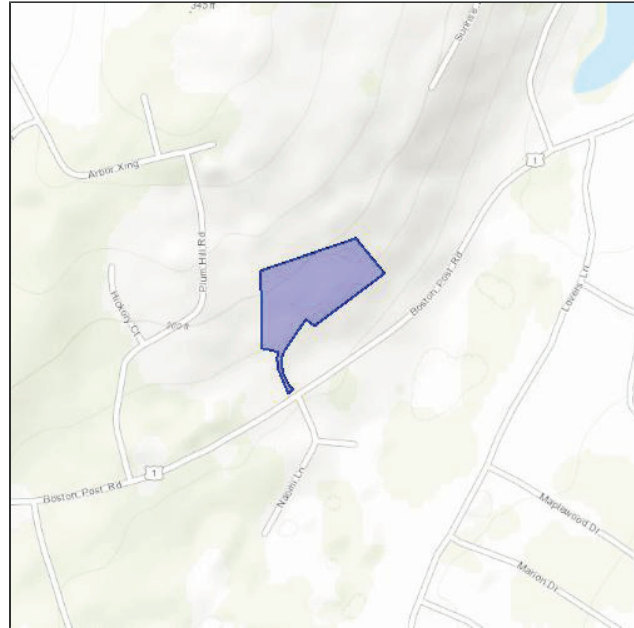
CXW2S-4L42Z-ATLL3-AUR5H-4JEKV4

### LOCATION

New London County, Connecticut

### DESCRIPTION

AT&T Mobility d/b/a New Cingular Wireless PCS, LLC (AT&T) is proposing to construct a new wireless telecommunications facility located at 351 Boston Post Road and would consist of a 194' tall monopole tower within a 120'x70' fenced gravel equipment compound/lease area.



## U.S. Fish & Wildlife Contact Information

Species in this report are managed by:

### New England Ecological Services Field Office

70 Commercial Street, Suite 300  
Concord, NH 3301-5094  
(603) 223-2541

## Endangered Species

Proposed, candidate, threatened, and endangered species that are managed by the [Endangered Species Program](#) and should be considered as part of an effect analysis for this project.

## Flowering Plants

**Small Whorled Pogonia** *Isotria medeoloides*

**Threatened**

### CRITICAL HABITAT

**No critical habitat** has been designated for this species.

<https://ecos.fws.gov/speciesProfile/profile/speciesProfile.action?spscode=Q1XL>



## Mammals

### **Northern Long-eared Bat** *Myotis septentrionalis*

**Threatened**

#### CRITICAL HABITAT

**No critical habitat** has been designated for this species.

<https://ecos.fws.gov/speciesProfile/profile/speciesProfile.action?scode=A0JE>

## Critical Habitats

Potential effects to critical habitat(s) within the project area must be analyzed along with the endangered species themselves.

There is no critical habitat within this project area

# Migratory Birds

Birds are protected by the [Migratory Bird Treaty Act](#) and the Bald and Golden Eagle Protection Act.

Any activity which results in the take of migratory birds or eagles is prohibited unless authorized by the U.S. Fish and Wildlife Service (1). There are no provisions for allowing the take of migratory birds that are unintentionally killed or injured.

You are responsible for complying with the appropriate regulations for the protection of birds as part of this project. This involves analyzing potential impacts and implementing appropriate conservation measures for all project activities.

<p><b>American Oystercatcher</b> <i>Haematopus palliatus</i>            Season: Breeding  <a href="https://ecos.fws.gov/speciesProfile/profile/speciesProfile.action?spcode=B0G8">https://ecos.fws.gov/speciesProfile/profile/speciesProfile.action?spcode=B0G8</a></p>	<b>Bird of conservation concern</b>
<p><b>American Bittern</b> <i>Botaurus lentiginosus</i>            Season: Breeding  <a href="https://ecos.fws.gov/speciesProfile/profile/speciesProfile.action?spcode=B0F3">https://ecos.fws.gov/speciesProfile/profile/speciesProfile.action?spcode=B0F3</a></p>	<b>Bird of conservation concern</b>
<p><b>Bald Eagle</b> <i>Haliaeetus leucocephalus</i>            Year-round  <a href="https://ecos.fws.gov/speciesProfile/profile/speciesProfile.action?spcode=B008">https://ecos.fws.gov/speciesProfile/profile/speciesProfile.action?spcode=B008</a></p>	<b>Bird of conservation concern</b>
<p><b>Black Rail</b> <i>Laterallus jamaicensis</i>            Season: Breeding  <a href="https://ecos.fws.gov/speciesProfile/profile/speciesProfile.action?spcode=B09A">https://ecos.fws.gov/speciesProfile/profile/speciesProfile.action?spcode=B09A</a></p>	<b>Bird of conservation concern</b>
<p><b>Black-billed Cuckoo</b> <i>Coccyzus erythrophthalmus</i>            Season: Breeding  <a href="https://ecos.fws.gov/speciesProfile/profile/speciesProfile.action?spcode=B0HI">https://ecos.fws.gov/speciesProfile/profile/speciesProfile.action?spcode=B0HI</a></p>	<b>Bird of conservation concern</b>
<p><b>Blue-winged Warbler</b> <i>Vermivora pinus</i>            Season: Breeding  <a href="https://ecos.fws.gov/speciesProfile/profile/speciesProfile.action?spcode=B0JY">https://ecos.fws.gov/speciesProfile/profile/speciesProfile.action?spcode=B0JY</a></p>	<b>Bird of conservation concern</b>
<p><b>Canada Warbler</b> <i>Wilsonia canadensis</i>            Season: Breeding  <a href="https://ecos.fws.gov/speciesProfile/profile/speciesProfile.action?spcode=B0LL">https://ecos.fws.gov/speciesProfile/profile/speciesProfile.action?spcode=B0LL</a></p>	<b>Bird of conservation concern</b>
<p><b>Cerulean Warbler</b> <i>Dendroica cerulea</i>            Season: Breeding  <a href="https://ecos.fws.gov/speciesProfile/profile/speciesProfile.action?spcode=B09I">https://ecos.fws.gov/speciesProfile/profile/speciesProfile.action?spcode=B09I</a></p>	<b>Bird of conservation concern</b>
<p><b>Fox Sparrow</b> <i>Passerella iliaca</i>            Season: Wintering  <a href="https://ecos.fws.gov/speciesProfile/profile/speciesProfile.action?spcode=B0NE">https://ecos.fws.gov/speciesProfile/profile/speciesProfile.action?spcode=B0NE</a></p>	<b>Bird of conservation concern</b>
<p><b>Hudsonian Godwit</b> <i>Limosa haemastica</i>            Season: Migrating  <a href="https://ecos.fws.gov/speciesProfile/profile/speciesProfile.action?spcode=B0JM">https://ecos.fws.gov/speciesProfile/profile/speciesProfile.action?spcode=B0JM</a></p>	<b>Bird of conservation concern</b>

<b>Least Bittern</b> <i>Ixobrychus exilis</i> Season: Breeding <a href="https://ecos.fws.gov/speciesProfile/profile/speciesProfile.action?spcode=B0JW">https://ecos.fws.gov/speciesProfile/profile/speciesProfile.action?spcode=B0JW</a>	<b>Bird of conservation concern</b>
<b>Least Tern</b> <i>Sterna antillarum</i> Season: Breeding <a href="https://ecos.fws.gov/speciesProfile/profile/speciesProfile.action?spcode=B07N">https://ecos.fws.gov/speciesProfile/profile/speciesProfile.action?spcode=B07N</a>	<b>Bird of conservation concern</b>
<b>Pied-billed Grebe</b> <i>Podilymbus podiceps</i> Year-round <a href="https://ecos.fws.gov/speciesProfile/profile/speciesProfile.action?spcode=B0JQ">https://ecos.fws.gov/speciesProfile/profile/speciesProfile.action?spcode=B0JQ</a>	<b>Bird of conservation concern</b>
<b>Prairie Warbler</b> <i>Dendroica discolor</i> Season: Breeding <a href="https://ecos.fws.gov/speciesProfile/profile/speciesProfile.action?spcode=B0K4">https://ecos.fws.gov/speciesProfile/profile/speciesProfile.action?spcode=B0K4</a>	<b>Bird of conservation concern</b>
<b>Purple Sandpiper</b> <i>Calidris maritima</i> Season: Wintering <a href="https://ecos.fws.gov/speciesProfile/profile/speciesProfile.action?spcode=B0L1">https://ecos.fws.gov/speciesProfile/profile/speciesProfile.action?spcode=B0L1</a>	<b>Bird of conservation concern</b>
<b>Rusty Blackbird</b> <i>Euphagus carolinus</i> Season: Wintering <a href="https://ecos.fws.gov/speciesProfile/profile/speciesProfile.action?spcode=B0Jl">https://ecos.fws.gov/speciesProfile/profile/speciesProfile.action?spcode=B0Jl</a>	<b>Bird of conservation concern</b>
<b>Saltmarsh Sparrow</b> <i>Ammodramus caudacutus</i> Season: Breeding <a href="https://ecos.fws.gov/speciesProfile/profile/speciesProfile.action?spcode=B0MY">https://ecos.fws.gov/speciesProfile/profile/speciesProfile.action?spcode=B0MY</a>	<b>Bird of conservation concern</b>
<b>Seaside Sparrow</b> <i>Ammodramus maritimus</i> Year-round <a href="https://ecos.fws.gov/speciesProfile/profile/speciesProfile.action?spcode=B0N0">https://ecos.fws.gov/speciesProfile/profile/speciesProfile.action?spcode=B0N0</a>	<b>Bird of conservation concern</b>
<b>Short-eared Owl</b> <i>Asio flammeus</i> Season: Wintering <a href="https://ecos.fws.gov/speciesProfile/profile/speciesProfile.action?spcode=B0HD">https://ecos.fws.gov/speciesProfile/profile/speciesProfile.action?spcode=B0HD</a>	<b>Bird of conservation concern</b>
<b>Snowy Egret</b> <i>Egretta thula</i> Season: Breeding <a href="https://ecos.fws.gov/speciesProfile/profile/speciesProfile.action?spcode=B0LC">https://ecos.fws.gov/speciesProfile/profile/speciesProfile.action?spcode=B0LC</a>	<b>Bird of conservation concern</b>
<b>Upland Sandpiper</b> <i>Bartramia longicauda</i> Season: Breeding <a href="https://ecos.fws.gov/speciesProfile/profile/speciesProfile.action?spcode=B0HC">https://ecos.fws.gov/speciesProfile/profile/speciesProfile.action?spcode=B0HC</a>	<b>Bird of conservation concern</b>
<b>Wood Thrush</b> <i>Hylocichla mustelina</i> Season: Breeding <a href="https://ecos.fws.gov/speciesProfile/profile/speciesProfile.action?spcode=B0IB">https://ecos.fws.gov/speciesProfile/profile/speciesProfile.action?spcode=B0IB</a>	<b>Bird of conservation concern</b>
<b>Worm Eating Warbler</b> <i>Helmitheros vermivorum</i> Season: Breeding <a href="https://ecos.fws.gov/speciesProfile/profile/speciesProfile.action?spcode=B0Il">https://ecos.fws.gov/speciesProfile/profile/speciesProfile.action?spcode=B0Il</a>	<b>Bird of conservation concern</b>

## Refuges

Any activity proposed on [National Wildlife Refuge](#) lands must undergo a 'Compatibility Determination' conducted by the Refuge. If your project overlaps or otherwise impacts a Refuge, please contact that Refuge to discuss the authorization process.

There are no refuges within this project area

# Wetlands

Impacts to [NWI wetlands](#) and other aquatic habitats from your project may be subject to regulation under Section 404 of the Clean Water Act, or other State/Federal Statutes.

Project proponents should discuss the relationship of these requirements to their project with the Regulatory Program of the appropriate [U.S. Army Corps of Engineers District](#).

## DATA LIMITATIONS

The Service's objective of mapping wetlands and deepwater habitats is to produce reconnaissance level information on the location, type and size of these resources. The maps are prepared from the analysis of high altitude imagery. Wetlands are identified based on vegetation, visible hydrology and geography. A margin of error is inherent in the use of imagery; thus, detailed on-the-ground inspection of any particular site may result in revision of the wetland boundaries or classification established through image analysis.

The accuracy of image interpretation depends on the quality of the imagery, the experience of the image analysts, the amount and quality of the collateral data and the amount of ground truth verification work conducted. Metadata should be consulted to determine the date of the source imagery used and any mapping problems.

Wetlands or other mapped features may have changed since the date of the imagery or field work. There may be occasional differences in polygon boundaries or classifications between the information depicted on the map and the actual conditions on site.

## DATA EXCLUSIONS

Certain wetland habitats are excluded from the National mapping program because of the limitations of aerial imagery as the primary data source used to detect wetlands. These habitats include seagrasses or submerged aquatic vegetation that are found in the intertidal and subtidal zones of estuaries and nearshore coastal waters. Some deepwater reef communities (coral or tubercid worm reefs) have also been excluded from the inventory. These habitats, because of their depth, go undetected by aerial imagery.

## DATA PRECAUTIONS

Federal, state, and local regulatory agencies with jurisdiction over wetlands may define and describe wetlands in a different manner than that used in this inventory. There is no attempt, in either the design or products of this inventory, to define the limits of proprietary jurisdiction of any Federal, state, or local government or to establish the geographical scope of the regulatory programs of government agencies. Persons intending to engage in activities involving modifications within or adjacent to wetland areas should seek the advice of appropriate federal, state, or local agencies concerning specified agency regulatory programs and proprietary jurisdictions that may affect such activities.

There are no wetlands identified in this project area

# ATTACHMENT 10



## AVIAN RESOURCES EVALUATION

**September 17, 2015**

**Site Acquisitions, Inc.  
500 Enterprise Drive, Suite 3A  
Rocky Hill, Connecticut 06067**

**APT Project No.: CT1931401**

**Re: Proposed East Lyme Relo Facility  
351A Boston Post Road  
East Lyme, Connecticut**

---

New Cingular Wireless PCS, LLC ("AT&T") proposes to construct a new wireless telecommunications Facility at 351A Boston Post Road in East Lyme, Connecticut (the "host Property"). The host Property consists of an approximately  $\pm 7.23$ -acre residentially developed and forested parcel. The area proposed for the Facility is located in the northeast corner of the host Property in an area that is currently comprised of mature upland hardwood forest consisting of a red, white, and black oak over story and mountain laurel understory on a moderate southeast facing slope. No wetlands or watercourses are located on the host Property. AT&T proposes to install a 194-foot tall monopole tower and ground equipment enclosure within a 100-foot by 60-foot gravel compound area surrounded with an 8-foot tall chain link fence ("Facility"). A proposed 20-foot wide access and utility easement would follow the existing resident's driveway then veer off to the east with a proposed 12-foot wide gravel drive through wooded uplands.

The purpose of this evaluation is to document the proposed Facility's proximity to avian resource areas and its compliance with recommended guidelines of the United States Fish and Wildlife Service ("USFWS") for minimizing the potential for telecommunications towers to impact bird species.

All-Points Technology Corporation, P.C. ("APT") reviewed several publicly-available sources of avian data for the state of Connecticut to provide the following information with respect to potential impacts on migratory birds associated with the proposed development. This desktop analysis and attached graphics identify avian resources and their proximities to the host Property. Information within an approximate 3-mile radius of the host Property is graphically depicted on the attached Avian Resources Map. Some of the avian data referenced herein are not located in proximity to the host Property and are therefore not visible on the referenced map due to its scale. However, in those cases the distances separating the host Property from the resources are identified in the discussions below.



## **Proximity to Important Bird Areas**

The National Audubon Society has identified 27 Important Bird Areas (“IBAs”) in the state of Connecticut. IBAs are sites that provide essential habitat for breeding, wintering, and/or migrating birds. To achieve this designation, an IBA must support species of conservation concern, restricted-range species, species vulnerable due to concentration in one general habitat type or biome, or species vulnerable due to their occurrence at high densities as a result of their congregatory behavior<sup>1</sup>. The closest IBA to the host Property is the Connecticut College Arboretum in Waterford and New London located approximately 6.3 miles to the northeast. The Bolleswood Natural Area, a mature hemlock-hardwood forest habitat within the arboretum, is important primarily because it is the site of one of the longest studies of bird populations in the country. The plant collection area provides a buffer area for the natural area and an important stopover site for migrating songbirds during spring and fall. Due to its distance from the site, this IBA would not experience an adverse impact resulting from the proposed development of the Facility.

## **Supporting Migratory Bird Data**

Beyond Audubon’s IBAs, the following analysis and attached graphics also identify several additional avian resources and their proximities to the host Property. Although these data sources may not represent habitat indicative of important bird areas, they may indicate possible bird concentrations<sup>2</sup> or migratory pathways.

## **Critical Habitat**

Connecticut Critical Habitats depict the classification and distribution of 25 rare and specialized wildlife habitats in the state. It represents a compilation of ecological information collected over many years by state agencies, conservation organizations and individuals. Critical habitats range in size from areas less than one acre to areas that are tens of acres in extent. The Connecticut Critical Habitats information can serve to highlight ecologically significant areas and to target areas of species diversity for land conservation and protection but may not necessarily be indicative of habitat for bird species. The nearest Critical Habitat to the proposed Facility is a terrestrial non-forested circumneutral rocky summit outcrop Area associated with an unnamed knoll in Waterford located approximately 2.5 miles to the northeast. Based on the distance separating this resource from the proposed Facility, no adverse impacts are anticipated.

---

<sup>1</sup> [http://web4.audubon.org/bird/iba/iba\\_intro.html](http://web4.audubon.org/bird/iba/iba_intro.html)

<sup>2</sup> “bird concentrations” is related to the USFWS *Revised Voluntary Guidelines for communication Tower Design, Siting, Construction, Operation, Retrofitting, and Decommissioning* (September 27, 2013) analysis provided at the end of this document

## **Avian Survey Routes and Points**

### **Breeding Bird Survey Route**

The North American Breeding Bird Survey is a cooperative effort between various agencies and volunteer groups to monitor the status and trends of North American bird populations. Routes are randomly located to sample habitats that are representative of an entire region and do not necessarily represent concentrations of avifauna or identification of critical avian habitats. Each year during the height of the avian breeding season (June for most of the United States) participants skilled in avian identification collect bird population data along roadside survey routes. Each survey route is approximately 24.5 miles long and contains 50 stops located at 0.5-mile intervals. At each stop, a three-minute count is conducted. During each count, every bird seen or heard within a 0.25-mile radius is recorded. The resulting data is used by conservation managers, scientists, and the general public to estimate population trends and relative abundances and to assess bird conservation priorities. The nearest survey route to the host Property is the Uncasville Breeding Bird Survey Route (Route #18004) located approximately 5.8 miles to the northeast. This ±26-mile long bird survey route begins near the Waterford/Montville town line and generally winds its way north through Montville, Bozrah, Franklin, and Lebanon before terminating in Windham. Since bird survey routes represent randomly selected data collection areas, they do not necessarily represent a potential restriction to development projects, including the proposed Facility.

### **Hawk Watch Site**

The Hawk Migration Association of North America ("HMANA") is a membership-based organization committed to the conservation of raptors through the scientific study, enjoyment and appreciation of raptor migration. HMANA collects hawk count data from almost 200 affiliated raptor monitoring sites throughout the United States, Canada and Mexico, identified as "Hawk Watch Sites." In Connecticut, Hawk Watch Sites are typically situated on prominent hills and mountains that tend to concentrate migrating raptors. The nearest Hawk Watch Site, East Shore Park, is located in New Haven, approximately 35 miles to the southwest of the proposed Facility. Based on the distance separating this possible raptor migratory route from the proposed Facility, no adverse impacts are anticipated.

Most hawks migrate during the day (diurnal) to take advantage of two theorized benefits: (1) diurnal migration allows for the use of updrafts or rising columns of air called thermals to gain lift without flapping thereby reducing energy loss; and, (2) day migrants can search for prey and forage as they migrate. Therefore, no adverse impacts to migrating hawks are anticipated with development of the Facility, based on the ±35-mile separation distance to the nearest Hawk Watch Site and hawk migration behavior occurring during the daytime under favorable weather conditions when thermals form.

## Bald Eagle Survey Route

Bald Eagle Survey Routes consist of locations of midwinter Bald Eagle counts from 1986 to 2005 with an update provided in 2008. This survey was initiated in 1979 by the National Wildlife Federation. This database includes information on statewide, regional and national trends. Survey routes are included in the database only if they were surveyed consistently in at least four years and where at least four eagles were counted in a single year. The nearest Bald Eagle Survey Route is the Connecticut River Survey Route Number 1 located in the Town of Old Lyme along the Connecticut River approximately 6.3 miles west of the host Property.

Bald Eagle migration patterns are complex, dependent on age of the individual, climate (particularly during the winter) and availability of food.<sup>3</sup> Adult birds typically migrate alone and generally as needed when food becomes unavailable, although concentrations of migrants can occur at communal feeding and roost sites. Migration typically occurs during the middle of day (10:30–17:00) as thermals provide for opportunities to soar up with limited energetic expense; Bald Eagle migration altitudes are estimated to average 1,500–3,050 m by ground observers.<sup>4</sup> Four adults tracked by fixed-wing aircraft in Montana averaged 98 km/d during spring migration and migrated at 200–600 m above ground (McClelland et al. 1996).<sup>5</sup>

In addition, the USFWS's *National Bald Eagle Management Guidelines* (May 2007) recommends a 660 foot buffer to bald eagle nests if the activity will be visible from the nest with an additional management practice recommendation of retaining mature trees and old growth stands, particularly within 0.5 mile from water.

Therefore, no adverse impacts to migrating Bald Eagle are anticipated with development of the Facility. This conclusion is based on the short (194-foot) height of the Facility, eagle migration patterns during the daytime under favorable weather conditions when thermals form and compliance with USFWS bald eagle management guidelines.

## Flyways

The host Property is located in New London County; approximately 3.7 miles north of Long Island Sound at Niantic Bay. The Connecticut coast lies within the Atlantic Flyway, one of four generally recognized regional primary migratory bird flyways (Mississippi, Central and Pacific being the others). This regional flyway is used by migratory birds travelling to and from summering and wintering grounds. The Atlantic Flyway is particularly important for many species of migratory waterfowl and shorebirds, and Connecticut's coast serves as vital stopover habitat. Migratory land birds also stop along coastal habitats before making their way inland. Smaller inland migratory flyways ("secondary flyways") are often concentrated along

---

<sup>3</sup> Buehler, David A. 2000. Bald Eagle (*Haliaeetus leucocephalus*), The Birds of North America Online (A. Poole, Ed.). Ithaca: Cornell Lab of Ornithology; Retrieved from the Birds of North America Online: <http://bna.birds.cornell.edu/bna/species/506> [Accessed 09/09/13].

<sup>4</sup> Harmata, A. R. 1984. Bald Eagles of the San Luis valley, Colorado: their winter ecology and spring migration. Ph.D. Thesis. Montana State Univ. Bozeman.

<sup>5</sup> McClelland, B. R., P. T. McClelland, R. E. Yates, E. L. Caton, and M. E. McFadden. 1996. Fledging and migration of juvenile Bald Eagles from Glacier National Park, Montana. *J. Raptor Res.* 30:79-89.

major riparian areas as birds use these valuable stopover habitats to rest and refuel as they make their way further inland to their preferred breeding habitats. The Connecticut Migratory Bird Stopover Habitat Project (Stokowski, 2002)<sup>6</sup> identified potential flyways along the Housatonic, Naugatuck, Thames, and Connecticut Rivers. This study paralleled a similar earlier study conducted by the Silvio O. Conte National Fish & Wildlife Refuge (Neotropical Migrant Bird Stopover Habitat Survey<sup>7</sup>), which consisted of collection of migratory bird data along the Connecticut River and the following major Connecticut River tributaries: Farmington, Hockanum, Scantic, Park, Mattabesset, Salmon, and Eight Mile Rivers. Of these potential flyways, the nearest to the host Property is the Connecticut River, located approximately 5.7 miles to the west. The Pattagansett River corridor, located 0.33 mile northeast of the host Property, is not identified as a potential flyway but potentially forms a secondary flyway as birds move northward from Long Island South through the Niantic River corridor (potential secondary flyway; ±2.35 miles to the east) during the spring migration. These major riparian corridors may provide secondary flyways as they likely offer more food and protection than more exposed upland sites, particularly during the spring migration<sup>8</sup>.

Siting of tower structures within flyways can be a concern, particularly for tall towers and even more particularly for tall towers with guy wires and lighting. The majority of studies on bird mortality due to towers focuses on very tall towers (greater than 1000 feet), illuminated with non-flashing lights, and guyed. These types of towers, particularly if sited in major migratory pathways, do result in significant bird mortality (Manville, 2005)<sup>9</sup>. The proposed Facility is not this type of tower, being an unlit, unguyed monopole structure only 194 feet in height. More recent studies of short communication towers (<300 feet) reveal that they rarely kill migratory birds<sup>10</sup>. Studies of mean flight altitude of migrating birds reveal flight altitudes of 410 meters (1350 feet), with flight altitudes on nights with bad weather between 200 and 300 meters above ground level (656 to 984 feet)<sup>11</sup>.

No adverse impacts to migrating bird species are anticipated with development of the Facility, based on its design (unlit and unguyed) and relatively short (194-foot) height, and the distances separating the host Property from the potential Connecticut River and Niantic River flyways. The design and height of the proposed Facility would also mitigate the potential for migratory bird impacts should the Pattagansett River be used as a secondary flyway.

---

<sup>6</sup> Stokowski, J.T. 2002. Migratory Bird Stopover Habitat Project Finishes First Year. Connecticut Wildlife, November/December 2002. P.4.

<sup>7</sup> The Silvio O. Conte National Fish & Wildlife Refuge Neotropical Migrant Bird Stopover Habitat Survey <http://www.science.smith.edu/stopoverbirds/index.html>

<sup>8</sup> The Silvio O. Conte National Fish & Wildlife Refuge Neotropical Migrant Bird Stopover Habitat Survey. [http://www.science.smith.edu/stopoverbirds/Chapter5\\_Conclusions&Recommendations.html](http://www.science.smith.edu/stopoverbirds/Chapter5_Conclusions&Recommendations.html)

<sup>9</sup> Manville, A.M. II. 2005. Bird strikes and electrocutions at power lines, communications towers, and wind turbines: state of the art and state of the science - next steps toward mitigation. Bird Conservation Implementation in the Americas: Proceedings 3<sup>rd</sup> International Partners in Flight Conference 2002. C.J. Ralph and T.D. Rich, editors. USDA Forest Service General Technical Report PSW-GTR-191. Pacific Southwest Research Station, Albany CA. pp. 1-51-1064.

<sup>10</sup> Kerlinger, P. 2000. Avian Mortality at Communication Towers: A Review of Recent Literature, Research, and Methodology. Prepared for U.S. Fish and Wildlife Service Office of Migratory Bird Management.

<sup>11</sup> Mabee, T.J., B.A. Cooper, J.H. Plissner, D.P. Young. 2006. Nocturnal bird migration over an Appalachian ridge at a proposed wind power project. Wildlife Society Bulletin 34:682-690.

## **Waterfowl Focus Areas**

The Atlantic Coast Joint Venture ("ACJV") is an affiliation of federal, state, regional and local partners working together to address bird conservation planning along the Atlantic Flyway. The ACJV has identified waterfowl focus areas recognizing the most important habitats for waterfowl along the Atlantic Flyway. Connecticut contains several of these waterfowl focus areas. The nearest waterfowl focus area to the host Property is the Connecticut River and Tidal Wetlands Complex area, located approximately 3.3 miles to the west associated with the Black Hall River riparian wetland system. Please refer to the attached Connecticut Waterfowl Focus Areas Map. Based on the distance of this waterfowl focus area to the host Property, no impact to migratory waterfowl would result from development of the proposed Facility.

## **CTDEEP Migratory Waterfowl Data**

The Connecticut Department of Energy and Environmental Protection ("CTDEEP") created a Geographic Information System ("GIS") data layer in 1999 identifying concentration areas of migratory waterfowl at specific locations in Connecticut. The intent of this data layer is to assist in the identification of migratory waterfowl resource areas in the event of an oil spill or other condition that might be a threat to waterfowl species. This data layer identifies conditions at a particular point in time and has not been updated since 1999.

The nearest migratory waterfowl area, the Mouth of the Niantic River in East Lyme, is located approximately 2.3 miles to the southeast of the host Property. The associated species are identified as American black duck, American brant, Bufflehead, Canada goose, Canvasback, Mallard, and Red-breasted Merganser. Based on the distance of this migratory waterfowl area to the host Property, no impact to migratory waterfowl would result from development of the proposed Facility.

## **CTDEEP Natural Diversity Data Base**

CTDEEP's Natural Diversity Data Base ("NDDB") program performs hundreds of environmental reviews each year to determine the impact of proposed development projects on state listed species and to help landowners conserve the state's biodiversity. State agencies are required to ensure that any activity authorized, funded or performed by a state agency does not threaten the continued existence of endangered or threatened species. Maps have been developed to serve as a pre-screening tool to help applicants determine if there is a potential impact to state listed species.

The NDDB maps represent approximate locations of endangered, threatened and special concern species and significant natural communities in Connecticut. The locations of species and natural communities depicted on the maps are based on data collected over the years by CTDEEP staff, scientists, conservation groups, and landowners. In some cases an occurrence represents a location derived from literature, museum records and/or specimens. These data are compiled and maintained in the NDDB. The general locations of species and communities are symbolized as shaded areas on the maps. Exact locations have been masked to protect sensitive species from collection and disturbance and to protect landowner's rights whenever species occur on private property.

According to an August 24, 2015 letter from the CTDEEP NDDb, red bat (*Lasiurus borealis*), a State Species of Special Concern, is known to exist on or within the vicinity of the host Property. CTDEEP recommends that "If tree cutting is part of this project, work should be conducted in the winter when the bats are not in the area, specifically work should not be conducted after May 1st through August 15th." AT&T would perform tree clearing work during the CTDEEP's recommended August 15th to April 30th period to avoid impact to this State-listed species.

## **USFWS Communications Towers Compliance**

In 2013, the USFWS prepared its *Revised Voluntary Guidelines for communication Tower Design, Siting, Construction, Operation, Retrofitting, and Decommissioning*<sup>12</sup> which recommends the 13 voluntary guidelines below. These voluntary guidelines are designed to assist tower companies in developing their communication systems in a way which minimizes the risk to migratory birds and threatened and endangered species. APT offers the following responses to each of the USFWS recommendations which are abridged from the original document.

1. *Collocation of the communications equipment on an existing communication tower or other structure (e.g., billboard, water and transmission tower, distribution pole, or building mount) is strongly recommended. Depending on tower load factors and communication needs, from 6 to 10 providers should collocate on an existing tower or structure.*

Collocation opportunities on existing towers, buildings or non-tower structures are not available in the area while achieving the required radio frequency ("RF") coverage objectives of AT&T.

2. *If collocation is not feasible and a new tower or towers are to be constructed, it is strongly recommended that the new tower(s) should be not more than 199 feet above ground level ("AGL"), and that construction techniques should not require wires. Such towers should be unlighted if Federal Administration ("FAA") regulations and lighting standards permit. If lighting is required, no red-steady lights should be used. USFWS considers towers that are unlit, unguyed, monopole or lattice, and less than 200 feet AGL to be the environmentally preferred "gold standard".*

The proposed Facility would consist of a 194-foot monopole structure which requires neither guy wires nor lighting and is therefore consistent with USFWS' environmentally preferred "gold standard".

3. *If constructing multiple towers, the cumulative impacts of all the towers to migratory birds – especially to Birds of Conservation Concern<sup>13</sup> and threatened and endangered species, as well as the impacts of each individual tower, should be considered during development of a project.*

Multiple towers are not proposed as part of this project.

---

<sup>12</sup> Manville, A.M., Ph.D., C.W.B. Suggestions Based on Previous USFWS Recommendations to FCC Regarding WT Docket No. 03-187, FCC 06-164, Notice of Proposed Rulemaking, "Effects of Communication Towers on Migratory Birds" (2007), Docket No. 08-61, FCC's Antenna Structure Registration Program (2011), Service 2012 Wind Energy Guidelines, and Service 2013 Eagle Conservation Plan Guidance. September 27, 2013.

<sup>13</sup> U.S. Fish and Wildlife Service. 2008. Birds of Conservation Concern 2008. United States Department of Interior, Fish and Wildlife Service, Division of Migratory Bird Management, Arlington, VA. 85 pp. <http://www.fws.gov/migratorybirds/>



4. *The topography of the proposed tower site and surrounding habitat should be clearly noted, especially in regard to surrounding hills, mountains, mountain passes, ridge lines, rivers, lakes, wetlands, and other habitat types used by raptors, Birds of Conservation Concern, and state and federally listed species, and other birds of concern. Active raptor nests, especially those of Bald Eagles, should be noted, including known or suspected distances from proposed tower sites to nest locations.*

The topography of the proposed tower site and surrounding habitat is provided in the attached Avian Resources Map. No Bald Eagle nests, foraging areas or roost sites are known to be located within 660 feet of the proposed tower site.<sup>14</sup> A Bald Eagle survey route associated with Connecticut River Survey Route Number 1, portions of which likely provide foraging and roosting habitat and potential nesting habitat, is located approximately 6.3 miles west of the host Property.

5. *If at all possible, new towers should be sited within existing "antenna farms" (i.e., clusters of towers), in degraded areas (e.g., strip mines or other heavily industrialized areas), in commercial agricultural lands, in Superfund sites, or other areas where bird habitat is poor or marginal. Towers should not be sited in or near wetlands, or other known bird concentration areas (e.g., state or Federal refuges, staging areas, rookeries, and Important Bird Areas), in known migratory or daily movement flyways, areas of breeding concentration, in habitat of threatened or endangered species, or key habitats for Birds of Conservation Concern. Additionally, towers should not be sited in areas with a high incidence of fog, mist, and low ceilings.*

There are no existing "antenna farms", degraded or commercial areas in the vicinity of the proposed tower site that would satisfy the RF coverage objectives. The proposed Facility is not within wetlands, known bird concentration area, migratory or daily movement flyway, habitat of threatened/endangered species or result in fragmentation of a core forest habitat that could potentially provide habitat for Birds of Conservation Concern. According to an August 24, 2015 letter from the CTDEEP NDDDB, red bat (*Lasiurus borealis*), a State Species of Special Concern, is known to exist on or within the vicinity of the host Property. CTDEEP recommends that "If tree cutting is part of this project, work should be conducted in the winter when the bats are not in the area, specifically work should not be conducted after May 1st through August 15th." AT&T would perform tree clearing work during the CTDEEP's recommended August 15th to April 30th period to avoid impact to this State-listed species.

In Connecticut, seasonal atmospheric conditions can occasionally produce fog, mist and/or low ceilings. However, high incidences of these meteorological conditions, relative to the region, are not known to exist in the vicinity of the host Property.

6. *If taller (>199 feet AGL) towers requiring lights for aviation safety must be constructed, the minimum amount of pilot warning and obstruction avoidance lighting required by the FAA should be used. The use of solid (non-flashing) warning lights at night should be avoided to minimize bird fatalities.*

The proposed Facility height (194 feet AGL) is less than 199 feet and would not require any aviation safety lighting.

---

<sup>14</sup> U.S. Fish and Wildlife Service. 2007. National Bald Eagle Management Guidelines. United States Department of Interior, Fish and Wildlife Service, 23 pp. <http://www.fws.gov/southdakotafieldoffice/NationalBaldEagleManagementGuidelines.pdf>



7. *Tower designs using guy wires for support, which are proposed to be located in known raptor or waterbird concentration areas, daily movement routes, major diurnal migratory bird movement routes, staging areas, or stopover sites, should have daytime visual markers or bird deterrent devices installed on the wires to prevent collisions by these diurnally moving species.*

The proposed Facility would be free-standing and would not require guy wires or visual marking.

8. *Towers and appendant facilities should be sited, designed and constructed so as to avoid or minimize habitat loss within and adjacent to the tower "footprint." However, a larger tower footprint is preferable to the use of guy wires in construction. Road access and fencing should be minimized to reduce or prevent habitat fragmentation, disturbance, and the creation of barriers, and to reduce above ground obstacles to birds in flight.*

The proposed Facility is sited, designed, and would be constructed to accommodate proposed equipment and to allow for future collocations within the smallest footprint possible. The Facility would be located within an existing forested upland area on a developed residential property that is characterized as both edge and perforated forest<sup>15</sup>. Therefore, the proposed Facility would not result in habitat fragmentation or the creation of barriers or excessive disturbance.

9. *If, prior to tower design, siting and construction, it has been determined that a significant number of breeding, feeding, or roosting birds, especially of Birds of Conservation Concern, state or federally-listed bird species, and eagles are known to habitually use the proposed tower construction area, relocation to an alternate site is highly recommended. If this is not an option, seasonal; restrictions on construction may be advisable in order to avoid disturbance, site and nest abandonment, especially during breeding, rearing and other periods of high bird activity.*

Significant numbers of breeding, feeding, or roosting Birds of Conservation Concern, state or federally-listed birds' species, or eagles are not known to habitually use the proposed tower construction areas at the host Property.

10. *Security lighting for on-ground facilities, equipment and infrastructure should be motion- or heat-sensitive, down-shielded, and of a minimum intensity to reduce nighttime bird attraction and eliminate constant nighttime illumination, but still allow for safe nighttime access to the site.<sup>16,17</sup>*

Security lighting for on-ground facilities would be down-shielded using Dark Sky compliant fixtures set on motion sensor with timer to eliminate constant nighttime illumination.

---

<sup>15</sup> UCONN Center for Land Use Education and Research. 2006. Forest Fragmentation Analysis Map.

<sup>16</sup> Manville, A.M., II. 2011. Comments of the U.S. Fish and Wildlife Service's Division of Migratory Bird Management Filed Electronically on WT Docket No. 08-61 and WT Docket No. 03-187, Regarding the Environmental Effects of the Federal Communication's Antenna Structure Registration Program. January 14, 2011. 12 pp.

<sup>17</sup> U.S. Fish and Wildlife Service. 2012. U.S. Fish and Wildlife Service Land-Based Wind Energy Guidelines. March, 82 pp.

*11. Representatives from the USFWS or researchers from the Research Subcommittee of the Communication Tower Working Group ("CTWG") should be allowed access to the site to evaluate bird use; conduct dead-bird searches; place above ground net catchments below the towers; and to perform studies using radar, Global Positioning System, infrared, thermal imagery, and acoustical monitoring equipment, as necessary to assess and verify bird movements and to gain information on the impacts of various tower sizes, configurations, and lighting systems.*

With prior written notification to and approval by AT&T, USFWS or CTWG research personnel would be allowed access to the proposed Facility to conduct evaluations.

*12. Towers no longer in use, not re-licensed by the FCC for use, or determined to be obsolete should be removed within 12 months of cessation of use.*

If the proposed Facility was no longer in use, not re-licensed by the FCC for use, or determined to be obsolete, it would be removed within 12 months of cessation of use.

*13. In order to obtain information on the usefulness of these guidelines in preventing bird strikes and better understanding impacts from habitat fragmentation, please advise USFWS personnel of the final location and specifications of the proposed tower, and which measures recommended in these guidelines were implemented.*

The location and specification of the proposed Facility have been provided in this report and accompanying maps. A detailed review of implemented measures recommended in the *Revised Voluntary Guidance for Communication Tower Design, Siting, Construction, Operation, Retrofitting, and Decommissioning* (September 27, 2013) are provided herein. The proposed Facility is not proximate to an Important Bird Area and would comply with the USFWS guidelines for minimizing the potential impacts to birds being an unlit, unguyed monopole structure only 194 feet in height. APT recommends that a copy of this report be submitted to USFWS if the proposed Facility is constructed. Should the final location and specification of the proposed Facility be modified as part of the siting process, this report will be updated accordingly.

## **Summary and Conclusions**

Based on the results of this desk-top evaluation, no migratory bird species are anticipated to be impacted by AT&T's proposed development. The proposed Facility is not proximate to an Important Bird Area and would comply with the USFWS guidelines for minimizing the potential impacts to bird species.

---

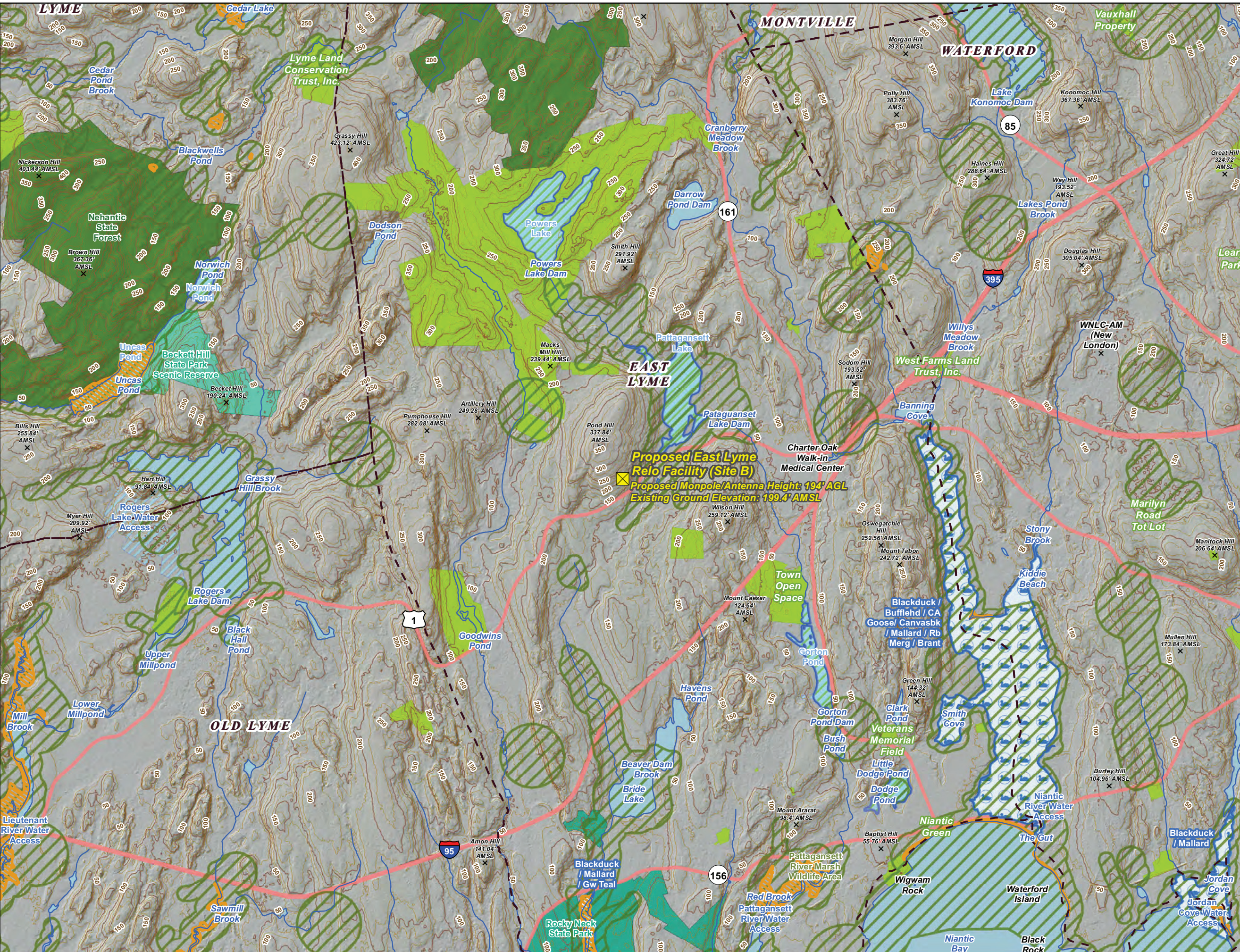
# Figures

- Avian Resources Map
- Connecticut Waterfowl Focus Areas Map



# Avian Resources Map

Proposed Wireless  
Telecommunications Facility  
East Lyme Relo.  
351A Boston Post Road  
East Lyme, Connecticut



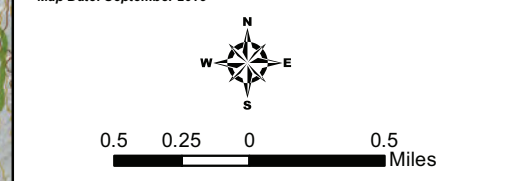
## Legend

- Proposed Facility
- Hawk Watch Site\*
- Important Bird Area\*
- Bald Eagle Survey Route\*
- Breeding Bird Survey Route\*
- Natural Diversity Database (CTDEEP, 12/2014)
- Critical Habitat (CTDEEP, 07/2009)
- Migratory Waterfowl (CTDEEP, 1999)
- Preserved Open Space (CTDEEP, 1997)
- Federal Open Space (CTDEEP, 2004)\*
- CT DEP Property (CT DEEP, 12/2010)**
- State Forest
- State Park
- DEP Owned Waterbody
- State Park Scenic Reserve
- Historic Preserve\*
- Natural Area Preserve\*
- Fish Hatchery\*
- Flood Control\*
- State Park Trail\*
- Water Access
- Wildlife Area
- Wildlife Sanctuary
- Other\*
- Open Water
- Town Boundary

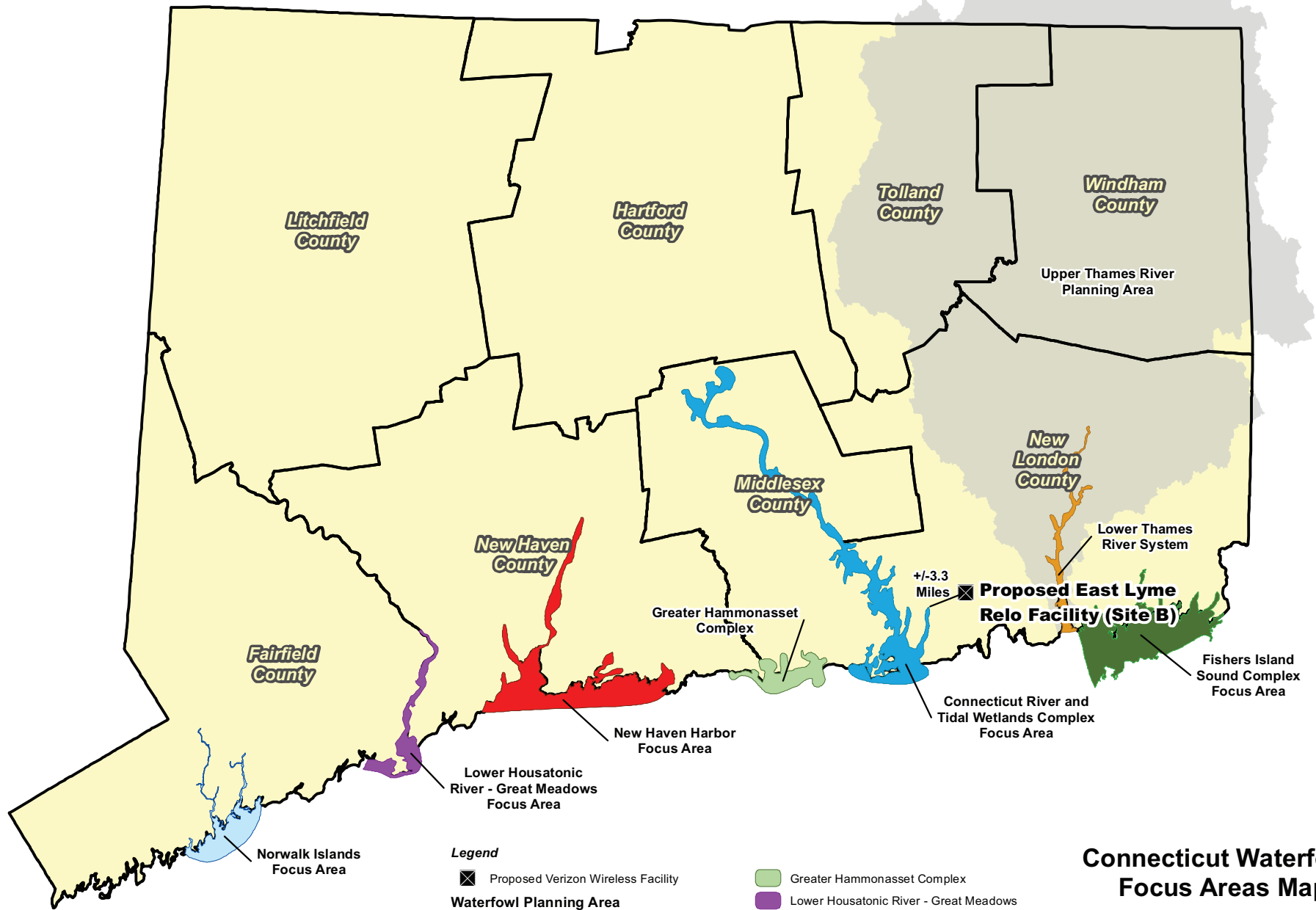
\*None within mapped extents

**Avian Source Information:**  
 Bald Eagle Sites: U.S. Geological Survey, National Information Infrastructure, 2008, Midwinter Bald Eagle Counts, 1986-2005 (update 2008).  
 Hawk Watch Sites: Hawk Migration Association of North America (HMANA), Hawk Count website: <http://hawkcount.org/sitesel.php?country=USA&stateprov=Connecticut>  
 Migratory Waterfowl: CTDEEP GIS, 1999  
 Important Bird Sites/Areas: National Audubon Society, Audubon Connecticut  
[http://ct.audubon.org/BirdSci\\_IBAs.html](http://ct.audubon.org/BirdSci_IBAs.html)  
 Breeding Bird Survey Routes: Patuxent Wildlife Research Center of the U.S. Geological Survey and the Canadian Wildlife Service's National Wildlife Research Centre  
<http://www.nationalatlas.gov/mid/bbrts.html>

Base Map Source: 2012 aerial photograph (CTECO map service)  
 Map Date: September 2015





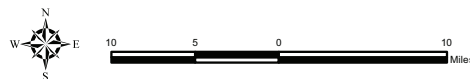


**Legend**

- 
- Proposed Verizon Wireless Facility
  Greater Hammonasset Complex
  Lower Housatonic River - Great Meadows
- Waterfowl Planning Area**
 Upper Thames River
  Lower Thames River System
- Waterfowl Focus Areas**
 Connecticut River and Tidal Wetlands Complex
  Norwalk Islands
  Fishers Island Sound Complex

**Connecticut Waterfowl Focus Areas Map**

Proposed Wireless Telecommunications Facility  
 East Lyme Relo.  
 351A Boston Post Road  
 East Lyme, Connecticut



# ATTACHMENT 11



July 8, 2015

To: Mr. Todd Levine  
State of Connecticut Department of  
Economic and Community Development  
State Historic Preservation Office  
One Constitution Plaza, Second Floor  
Hartford, CT 06103

Re: Proposed Wireless Telecommunications Facility  
East Lyme Relo CT (Candidate C)  
351A Boston Post Road  
East Lyme, Connecticut 06333  
APT Project#: CT1931401

**Determination of Effects for the Proposed Telecommunications Collocation to be Sited at 351A Boston Post Road in East Lyme, Connecticut:**

In accordance with the Federal Communication Commission (FCC) National Environmental Policy Act (NEPA) rules and Section 106 of the National Historic Preservation Act (NHPA), the above-referenced telecommunications project, proposed by AT&T Mobility d/b/a New Cingular Wireless PCS, LLC (AT&T), is being evaluated for its potential effects to districts, sites, buildings, structures, or objects significant in American history, architecture, archeology, engineering, or culture that are listed, or potentially eligible for listing in the National Register of Historic Places (NRHP).

In accordance with the Nationwide Agreement, please find the attached Submission Packet, FCC Form 620, which presents the details on the proposed project as well as efforts that have been taken to identify, assess, and make determinations of effect on the impacts of the proposed project on Historic Properties. As part of this Undertaking, AT&T, is proposing to construct a 194'-tall Monopole Communications Tower facility at 351A Boston Post Road in East Lyme, Connecticut. The Subject Property consists of an approximately 6.24-acre parcel that is located on the north side of Boston Post Road opposite Naomi Lane. The parcel is developed with a two-story house (built in 1974) with an attached garage. Small lawns surround the house, while the remainder of the parcel is wooded. The proposed telecommunications facility consists of the 194'-tall monopole communications tower with antennas, which will be set within a 60' x 100' fenced (chain link) equipment compound. Utilities will be routed through a proposed underground conduit to an existing utility pole located on Boston Post Road. Access to the site is proposed to be gained via a 12' wide access/utilities easement originating approximately 725' to the west along an existing driveway leading northeast from Boston Post Road to the house located on the property.

File reviews of the National Register Database, Connecticut State Historic Register, and Connecticut State Historic Resource Inventories were conducted by Lucas Karmazinas, architectural historian with FuturePast Preservation, and Mr. William Keegan, Historical Geographer & GIS Specialist, with Heritage Consultants, LLC, to identify Historic Properties within the 0.5-mile Area for Potential Effect (APE) for Visual and Direct Effects.

**ALL-POINTS TECHNOLOGY CORPORATION, P.C.**

3 SADDLEBROOK DRIVE · KILLINGWORTH, CT 06419 · PHONE 860-663-1697 · FAX 860-663-0935



No Historic Properties<sup>1</sup> previously listed or formally deemed eligible for the National Register of Historic Places (NRHP) were identified within the APE.

This being said, per request from Connecticut's State Historic Preservation Office, a good-faith effort has been made on the part of the investigator to identify any undocumented resources that might be considered Historic Properties. While considered outside of the scope of the Submission Packet, FCC Form 620, a number of historic resources were identified within the APE for Visual Effects, however, these were not deemed eligible for listing on the State or National Register of Historic Places due to their perceived lack of exceptional historical significance, extensive alterations and additions, development of the surrounding landscape, and/or scattered locations. These include the residential buildings at 297 Boston Post Road (ca. 1850), 309 Boston Post Road (ca. 1850), and 365 Boston Post Road (ca. 1770). The latter is the best preserved among the three, however, the recent construction of a large house directly northwest of the historic structure has seriously compromised its historic setting. Despite the presence of this resource, however, it is the opinion of the investigator that the proposed undertaking would have No Adverse Effect on its historic integrity or ability to convey its potential significance. This is due to the fact that the visibility of the Undertaking will be minimized by the surrounding topography and will have little impact on the visual setting and character of the resource, particularly considering the presence and impact of the neighboring new construction.

Sincerely,



Lucas Karmazinas, M.A., Architectural Historian  
c/o All-Points Technology Corp., P.C.

---

<sup>1</sup> The Nationwide Programmatic Agreement defines a "Historic Property" as "Any prehistoric or historic district, site, building, structure, or object included in, or eligible for inclusion in, the National Register maintained by the Secretary of the Interior. This term includes artifacts, records, and remains that are related to and located within such properties. The term includes properties of traditional religious and cultural importance to an Indian tribe or NHO that meet the National Register criteria."

Notification Date:

File Number:

**General Information**

1) (Select only one) ( <b>NE</b> ) <b>NE</b> – New <b>UA</b> – Update of Application <b>WD</b> – Withdrawal of Application	
2) If this application is for an Update or Withdrawal, enter the file number of the pending application currently on file.	File Number:

**Applicant Information**

3) FCC Registration Number (FRN): <b>0004979233</b>
4) Name: <b>AT&amp;T Mobility Services, LLC</b>

**Contact Name**

5) First Name: <b>Anisa</b>	6) MI:	7) Last Name: <b>Latif</b>	8) Suffix:
9) Title:			

**Contact Information**

10) P.O. Box:	<b>And /Or</b>	11) Street Address: <b>1120 20th Street NW, Suite 100</b>	
12) City: <b>Washington</b>		13) State: <b>DC</b>	14) Zip Code: <b>20036</b>
15) Telephone Number: <b>(202)457-3068</b>		16) Fax Number:	
17) E-mail Address: <b>anisa.a.latif@att.com</b>			

**Consultant Information**

18) FCC Registration Number (FRN): <b>0021738141</b>
19) Name: <b>Lucas A. Karmazinas c/o All-Points Technology Corp., P.C.</b>

**Principal Investigator**

20) First Name: <b>Lucas</b>	21) MI:	22) Last Name: <b>Karmazinas</b>	23) Suffix:
24) Title: <b>Architectural Historian</b>			

**Principal Investigator Contact Information**

25) P.O. Box:	<b>And /Or</b>	26) Street Address: <b>3 Saddlebrook Drive</b>	
27) City: <b>Killingworth</b>		28) State: <b>CT</b>	29) Zip Code: <b>06419</b>
30) Telephone Number: <b>(860)633-1697</b>		31) Fax Number: <b>(860)633-0935</b>	
32) E-mail Address: <b>ncastro@allpointstech.com</b>			

**Professional Qualification**

33) Does the Principal Investigator satisfy the Secretary of the Interior's Professional Qualification Standards?	( <input checked="" type="checkbox"/> ) <u>Y</u> es ( ) <u>N</u> o
34) Areas of Professional Qualification:	
( ) Archaeologist	
( <input checked="" type="checkbox"/> ) Architectural Historian	
( ) Historian	
( ) Architect	
( ) Other (Specify) _____	

**Additional Staff**

35) Are there other staff involved who meet the Professional Qualification Standards of the Secretary of the Interior?	( <input checked="" type="checkbox"/> ) <u>Y</u> es ( ) <u>N</u> o
--	--

If "YES," complete the following:

36) First Name: <b>David</b>	37) MI:	38) Last Name: <b>George</b>	39) Suffix:
------------------------------	---------	------------------------------	-------------

40) Title: <b>Heritage Consultants</b>
--

41) Areas of Professional Qualification:
( <input checked="" type="checkbox"/> ) Archaeologist
( ) Architectural Historian
( ) Historian
( ) Architect
( ) Other (Specify) _____

36) First Name: <b>William</b>	37) MI:	38) Last Name: <b>Keegan</b>	39) Suffix:
--------------------------------	---------	------------------------------	-------------

40) Title: <b>Heritage Consultants</b>
--

41) Areas of Professional Qualification:
( ) Archaeologist
( ) Architectural Historian
( <input checked="" type="checkbox"/> ) Historian
( ) Architect
( ) Other (Specify) _____

## Site Information

### Tower Construction Notification System

1) TCNS Notification Number: **126348**

### Site Information

2) Positive Train Control Filing Subject to Expedited Treatment Under Program Comment: ( ) Yes ( **X** ) No

3) Site Name: **East Lyme Relo CT (Candidate C)**

4) Site Address: **351A Boston Post Road**

5) Detailed Description of Project:

**Refer to Site Plans**

6) City: **East Lyme**

7) State: **CT**

8) Zip Code: **06333**

9) County/Borough/Parish: **NEW LONDON**

10) Nearest Crossroads: **Boston Post Road and Naomi Lane**

11) NAD 83 Latitude (DD-MM-SS.S): **41-21-48.1**

( **X** ) N or ( ) S

12) NAD 83 Longitude (DD-MM-SS.S): **072-14-20.2**

( ) E or ( **X** ) W

### Tower Information

13) Tower height above ground level (include top-mounted attachments such as lightning rods): **59.1** ( ) Feet ( **X** ) Meters

14) Tower Type (Select One):

( ) Guyed lattice tower

( ) Self-supporting lattice

( **X** ) Monopole

( ) Other (Describe):

### Project Status

15) Current Project Status (Select One):

( **X** ) Construction has not yet commenced

( ) Construction has commenced, but is not completed

Construction commenced on: \_\_\_\_\_

( ) Construction has been completed

Construction commenced on: \_\_\_\_\_

Construction completed on: \_\_\_\_\_

**Determination of Effect**

14) Direct Effects (Select One):

- No Historic Properties in Area of Potential Effects (APE)
- No Effect on Historic Properties in APE
- No Adverse Effect on Historic Properties in APE
- Adverse Effect on one or more Historic Properties in APE

15) Visual Effects (Select One):

- No Historic Properties in Area of Potential Effects (APE)
- No Effect on Historic Properties in APE
- No Adverse Effect on Historic Properties in APE
- Adverse Effect on one or more Historic Properties in APE

### Tribal/NHO Involvement

1) Have Indian Tribes or Native Hawaiian Organizations (NHOs) been identified that may attach religious and cultural significance to historic properties which may be affected by the undertaking within the APEs for direct and visual effects?	( <input checked="" type="checkbox"/> ) <u>Yes</u> ( <input type="checkbox"/> ) <u>No</u>
2a) Tribes/NHOs contacted through TCNS Notification Number: <u>126348</u>	Number of Tribes/NHOs: <u>5</u>
2b) Tribes/NHOs contacted through an alternate system:	Number of Tribes/NHOs: <u>0</u>

#### Tribal/NHO Contacted Through TCNS

3) Tribe/NHO FRN:
4) Tribe/NHO Name: <b>Keweenaw Bay Indian Community</b>

#### Contact Name

5) First Name: <b>Gary</b>	6) MI:	7) Last Name: <b>Loonsfoot</b>	8) Suffix: <b>Jr</b>
9) Title: <b>THPO</b>			

#### Dates & Response

10) Date Contacted <u>05/06/2015</u>	11) Date Replied <u>05/06/2015</u>
<input type="checkbox"/> No Reply <input type="checkbox"/> Replied/No Interest <input type="checkbox"/> Replied/Have Interest <input checked="" type="checkbox"/> Replied/Other	

#### Tribal/NHO Contacted Through TCNS

3) Tribe/NHO FRN:
4) Tribe/NHO Name: <b>Lac Vieux Desert Band of Lake Superior Chippewa Indians</b>

#### Contact Name

5) First Name: <b>Giiwegiizhigookway</b>	6) MI:	7) Last Name: <b>Martin</b>	8) Suffix:
9) Title: <b>THPO and NAGPRA Representative</b>			

#### Dates & Response

10) Date Contacted <u>05/06/2015</u>	11) Date Replied <u>05/06/2015</u>
<input type="checkbox"/> No Reply <input type="checkbox"/> Replied/No Interest <input type="checkbox"/> Replied/Have Interest <input checked="" type="checkbox"/> Replied/Other	

### Tribal/NHO Involvement

1) Have Indian Tribes or Native Hawaiian Organizations (NHOs) been identified that may attach religious and cultural significance to historic properties which may be affected by the undertaking within the APEs for direct and visual effects?	( <input checked="" type="checkbox"/> ) <u>Y</u> es (    ) <u>N</u> o
2a) Tribes/NHOs contacted through TCNS Notification Number: <u>126348</u> Number of Tribes/NHOs: <u>5</u>	
2b) Tribes/NHOs contacted through an alternate system:    Number of Tribes/NHOs: <u>0</u>	

#### Tribal/NHO Contacted Through TCNS

3) Tribe/NHO FRN:
4) Tribe/NHO Name: <b>Mashantucket Pequot Tribe</b>

#### Contact Name

5) First Name: <b>Marissa</b>	6) MI:	7) Last Name: <b>Turnbull</b>	8) Suffix:
9) Title: <b>THPO</b>			

#### Dates & Response

10) Date Contacted <u>05/06/2015</u>	11) Date Replied <u>06/15/2015</u>
(    ) No Reply	
(    ) Replied/No Interest	
(    ) Replied/Have Interest	
( <input checked="" type="checkbox"/> ) Replied/Other	

#### Tribal/NHO Contacted Through TCNS

3) Tribe/NHO FRN:
4) Tribe/NHO Name: <b>Mohegan Indian Tribe</b>

#### Contact Name

5) First Name: <b>Elaine</b>	6) MI:	7) Last Name: <b>Thomas</b>	8) Suffix:
9) Title: <b>Deputy THPO</b>			

#### Dates & Response

10) Date Contacted <u>05/07/2015</u>	11) Date Replied <u>06/26/2015</u>
(    ) No Reply	
(    ) Replied/No Interest	
(    ) Replied/Have Interest	
( <input checked="" type="checkbox"/> ) Replied/Other	



### Tribal/NHO Involvement

1) Have Indian Tribes or Native Hawaiian Organizations (NHOs) been identified that may attach religious and cultural significance to historic properties which may be affected by the undertaking within the APEs for direct and visual effects?	( <input checked="" type="checkbox"/> ) <u>Y</u> es (    ) <u>N</u> o
2a) Tribes/NHOs contacted through TCNS Notification Number: <u>126348</u>	Number of Tribes/NHOs: <u>5</u>
2b) Tribes/NHOs contacted through an alternate system:	Number of Tribes/NHOs: <u>0</u>

#### Tribes/NHO Contacted Through TCNS

3) Tribe/NHO FRN:
4) Tribe/NHO Name: <b>Narragansett Indian Tribe</b>

#### Contact Name

5) First Name: <b>Sequahna</b>	6) MI:	7) Last Name: <b>Mars</b>	8) Suffix:
9) Title: <b>Program Manager-Cell Tower Division</b>			

#### Dates & Response

10) Date Contacted <u>05/07/2015</u>	11) Date Replied _____
( <input checked="" type="checkbox"/> ) No Reply	
(    ) Replied/No Interest	
(    ) Replied/Have Interest	
(    ) Replied/Other	

## Other Tribes/NHOs Contacted

### Tribe/NHO Information

1) FCC Registration Number (FRN):
2) Name:

### Contact Name

3) First Name:	4) MI:	5) Last Name:	6) Suffix:
7) Title:			

### Contact Information

8) P.O. Box:	<b>And /Or</b>	9) Street Address:		
10) City:		11) State:	12) Zip Code:	
13) Telephone Number:		14) Fax Number:		
15) E-mail Address:				
16) Preferred means of communication:  <input type="checkbox"/> E-mail  <input type="checkbox"/> Letter  <input type="checkbox"/> Both				

### Dates & Response

17) Date Contacted _____	18) Date Replied _____
<input type="checkbox"/> No Reply  <input type="checkbox"/> Replied/No Interest  <input type="checkbox"/> Replied/Have Interest  <input type="checkbox"/> Replied/Other	

## Historic Properties

### Properties Identified

1) Have any historic properties been identified within the APEs for direct and visual effect?	( <input type="checkbox"/> ) <u>Y</u> es ( <input checked="" type="checkbox"/> ) <u>N</u> o
2) Has the identification process located archaeological materials that would be directly affected, or sites that are of cultural or religious significance to Tribes/NHOs?	( <input type="checkbox"/> ) <u>Y</u> es ( <input checked="" type="checkbox"/> ) <u>N</u> o
3) Are there more than 10 historic properties within the APEs for direct and visual effect? If "Yes", you are required to attach a Cultural Resources Report in lieu of adding the Historic Property below.	( <input type="checkbox"/> ) <u>Y</u> es ( <input checked="" type="checkbox"/> ) <u>N</u> o

### Historic Property

4) Property Name:
5) SHPO Site Number:

### Property Address

6) Street Address:		
7) City:	8) State:	9) Zip Code:
10) County/Borough/Parish:		

### Status & Eligibility

11) Is this property listed on the National Register?  Source: _____	( <input type="checkbox"/> ) <u>Y</u> es ( <input type="checkbox"/> ) <u>N</u> o
12) Is this property eligible for listing on the National Register?  Source: _____	( <input type="checkbox"/> ) <u>Y</u> es ( <input type="checkbox"/> ) <u>N</u> o
13) Is this property a National Historic Landmark?	( <input type="checkbox"/> ) <u>Y</u> es ( <input type="checkbox"/> ) <u>N</u> o

14) Direct Effects (Select One):  <input type="checkbox"/> No Effect on this Historic Property in APE <input type="checkbox"/> No Adverse Effect on this Historic Property in APE <input type="checkbox"/> Adverse Effect on this Historic Property in APE
15) Visual Effects (Select One):  <input type="checkbox"/> No Effect on this Historic Property in APE <input type="checkbox"/> No Adverse Effect on this Historic Property in APE <input type="checkbox"/> Adverse Effect on this Historic Property in APE

## Local Government Involvement

### Local Government Agency

1) FCC Registration Number (FRN):
2) Name: <b>First Selectman</b>

### Contact Name

3) First Name: <b>Mark</b>	4) MI:	5) Last Name: <b>Nickerson</b>	6) Suffix:
7) Title:			

### Contact Information

8) P.O. Box:	<b>And /Or</b>	9) Street Address: <b>108 Pennsylvania Avenue</b>		
10) City: <b>East Lyme</b>		11) State: <b>CT</b>	12) Zip Code: <b>06333</b>	
13) Telephone Number: <b>(860)739-6931</b>		14) Fax Number:		
15) E-mail Address: <b>mnickerson@eltownhall.com</b>				
16) Preferred means of communication:  (    ) E-mail  ( <b>X</b> ) Letter  (    ) Both				

### Dates & Response

17) Date Contacted <b>04/30/2015</b>	18) Date Replied _____
( <b>X</b> ) No Reply  (    ) Replied/No Interest  (    ) Replied/Have Interest  (    ) Replied/Other	

### Additional Information

19) Information on local government's role or interest (optional):
--

## Local Government Involvement

### Local Government Agency

1) FCC Registration Number (FRN):
2) Name: <b>Director of Planning</b>

### Contact Name

3) First Name: <b>Gary A.</b>	4) MI:	5) Last Name: <b>Goeschel</b>	6) Suffix:
7) Title: <b>Director of Planning</b>			

### Contact Information

8) P.O. Box:	And /Or	9) Street Address: <b>108 Pennsylvania Avenue</b>	
10) City: <b>East Lyme</b>		11) State: <b>CT</b>	12) Zip Code: <b>06357</b>
13) Telephone Number: <b>(860)691-4114</b>		14) Fax Number:	
15) E-mail Address: <b>ggoeschel@eltownhall.com</b>			
16) Preferred means of communication: <input type="checkbox"/> E-mail <input checked="" type="checkbox"/> Letter <input type="checkbox"/> Both			

### Dates & Response

17) Date Contacted <b>04/30/2015</b>	18) Date Replied _____
<input checked="" type="checkbox"/> No Reply <input type="checkbox"/> Replied/No Interest <input type="checkbox"/> Replied/Have Interest <input type="checkbox"/> Replied/Other	

### Additional Information

19) Information on local government's role or interest (optional):
--

## Local Government Involvement

### Local Government Agency

1) FCC Registration Number (FRN):

2) Name: **Zoning Official**

### Contact Name

3) First Name: **William**

4) MI:

5) Last Name: **Mulholland**

6) Suffix:

7) Title: **Zoning Official**

### Contact Information

8) P.O. Box: **519**

And  
/Or

9) Street Address: **108 Pennsylvania Avenue**

10) City: **East Lyme**

11) State: **CT**

12) Zip Code: **06357**

13) Telephone Number: **(860)691-4114**

14) Fax Number:

15) E-mail Address: **billm@eltownhall.com**

16) Preferred means of communication:

(  ) E-mail

(  ) Letter

(  ) Both

### Dates & Response

17) Date Contacted **04/30/2015**

18) Date Replied \_\_\_\_\_

(  ) No Reply

(  ) Replied/No Interest

(  ) Replied/Have Interest

(  ) Replied/Other

### Additional Information

19) Information on local government's role or interest (optional):

## Local Government Involvement

### Local Government Agency

1) FCC Registration Number (FRN):

2) Name: **CLG Chair**

### Contact Name

3) First Name: **Luane**

4) MI:

5) Last Name: **Lange**

6) Suffix:

7) Title: **CLG Chair**

### Contact Information

8) P.O. Box: **519**

And  
/Or

9) Street Address: **108 Pennsylvania Avenue**

10) City: **East Lyme**

11) State: **CT**

12) Zip Code: **06357**

13) Telephone Number: **(860)739-6949**

14) Fax Number:

15) E-mail Address: **llange@sbcglobal.net**

16) Preferred means of communication:

(  ) E-mail

(  ) Letter

(  ) Both

### Dates & Response

17) Date Contacted **04/30/2015**

18) Date Replied \_\_\_\_\_

(  ) No Reply

(  ) Replied/No Interest

(  ) Replied/Have Interest

(  ) Replied/Other

### Additional Information

19) Information on local government's role or interest (optional):

### Other Consulting Parties

#### Other Consulting Parties Contacted

1) Has any other agency been contacted and invited to become a consulting party?	( ) <u>Y</u> es ( <b>X</b> ) <u>N</u> o
--	---

#### Consulting Party

2) FCC Registration Number (FRN):
3) Name:

#### Contact Name

4) First Name:	5) MI:	6) Last Name:	7) Suffix:
8) Title:			

#### Contact Information

9) P.O. Box:	<b>And /Or</b>	10) Street Address:	
11) City:		12) State:	13) Zip Code:
14) Telephone Number:		15) Fax Number:	
16) E-mail Address:			
17) Preferred means of communication: ( ) E-mail ( ) Letter ( ) Both			

#### Dates & Response

18) Date Contacted _____	19) Date Replied _____
( ) No Reply	
( ) Replied/No Interest	
( ) Replied/Have Interest	
( ) Replied/Other	

#### Additional Information

20) Information on other consulting parties' role or interest (optional):
---



## Designation of SHPO/THPO

1) Designate the Lead State Historic Preservation Officer (SHPO) or Tribal Historic Preservation Officer (THPO) based on the location of the tower.

### SHPO/THPO

Name: Connecticut Historical Commission (TCNS SHPO)

2) You may also designate up to three additional SHPOs/THPOs if the APEs include multiple states. If the APEs include other countries, enter the name of the National Historic Preservation Agency and any state and provincial Historic Preservation Agency.

SHPO/THPO Name: \_\_\_\_\_

SHPO/THPO Name: \_\_\_\_\_

SHPO/THPO Name: \_\_\_\_\_

### Certification

I certify that all representations on this FCC Form 620 Submission Packet and the accompanying attachments are true, correct, and complete.

#### Party Authorized to Sign

First Name:

MI:

Last Name:

Suffix:

Signature: \_\_\_\_\_

Date: \_\_\_\_\_

**FAILURE TO SIGN THIS APPLICATION MAY RESULT IN DISMISSAL OF THE APPLICATION AND FORFEITURE OF ANY FEES PAID.**

**WILLFUL FALSE STATEMENTS MADE ON THIS FORM OR ANY ATTACHMENTS ARE PUNISHABLE BY FINE AND/OR IMPRISONMENT (U.S. Code, Title 18, Section 1001) AND/OR REVOCATION OF ANY STATION LICENSE OR CONSTRUCTION PERMIT (U.S. Code, Title 47, Section 312(a)(1)), AND/OR FORFEITURE (U.S. Code, Title 47, Section 503).**

## **CO SUBMISSION PACKET – FCC FORM 620**

### **Attachment 1 – Consultant Information**

*Provide a current copy of the résumé or curriculum vitae for the Principal Investigator and any researcher or other person who contributed to, reviewed, or provided significant input into the research, analysis, writing or conclusions presented in this filing.*

Current curriculum vitae or résumés are included within this attachment for the Principal Investigator and any researcher or other person who contributed to, reviewed, or provided significant input into the research, analysis, writing or conclusions presented in this filing. Please note that FuturePast Preservation served as an outside contractor to perform the field survey file review for historic properties within the Areas of Potential Effect (APEs) for direct and visual effects.

**Applicant:** New Cingular Wireless PCS, LLC  
**Project Number:** CT1931401  
**Project Location:** 351A Boston Post Road, East Lyme, CT, 06333

## **CO SUBMISSION PACKET – FCC FORM 620**

### **Attachment 2 – Site Information - Photographs**

*You are required to provide photographs and maps as part of this filing. Additional site information can be provided in an optional attachment.*

#### ***Photograph Requirements:***

*Except in cases where no Historic Properties were identified within the Areas of Potential Effects, submit photographs as described below. Photographs should be in color, marked so as to identify the project, keyed to the relevant map or text, and dated; the focal length of the lens and the height of the camera should be noted. The source of any photograph included but not taken by the Applicant or its consultant (including copies of historic images) should be identified on the photograph.*

*a. Photographs taken from the collocation site should show views from the proposed location in all directions. The direction (e.g., north, south, etc.) should be indicated on each photograph, and, as a group, the photographs should present a complete (360 degree) view of the area around the communications tower or non-tower structure.*

*b. Photographs of all listed and eligible properties within the Areas of Potential Effects.*

*c. If any listed or eligible properties are visible from the proposed collocation site, photographs looking at the site from each historic property. The approximate distance in feet (meters) between the site and the historic property should be included. If any listed or eligible properties are within the APE, photos looking at each historic property should be included.*

*Include aerial photos of the APE for visual effects, if available. There are a variety of publicly available websites that provide aerial photographs.*

Please see the attached photographs, which were taken by Mr. David George, Archaeologist with Heritage Consultants, LLC, on May 5, 2015, or are Google Streetview images captured in September 2013, unless otherwise noted. Photograph location maps are included within this attachment.

**Applicant:** New Cingular Wireless PCS, LLC

**Project Number:** CT1931401

**Project Location:** 351A Boston Post Road, East Lyme, CT, 06333





Photo 1. Overview photo from the proposed tower location facing north.



Photo 2. Overview photo from the proposed tower location facing east.





Photo 3. Overview photo from the proposed tower location facing south.



Photo 4. Overview photo from the proposed tower location facing west.





Photo 5. Overview photo of the proposed tower location facing southeast.



Photo 6. Overview photo of the proposed tower location facing northwest.





Photo 7. Overview photo of the proposed tower location facing east (note large boulders and slopes in this area).



Photo 8. Overview photo of the proposed access road facing west.





Photo 9. Overview photo of the proposed access road facing west (note rocky soils in this area).



Photo 10. Overview photo of the proposed access road facing west (note disturbance in this area and very rocky soils).





Photo 11. Overview photo of the proposed access road (note considerable disturbance in this area and very rocky soils).

**CO SUBMISSION PACKET – FCC FORM 620**



**Photograph 12.**  
**View looking north towards 365 Boston Post Road (ca. 1770) from Boston Post Road.**  
**Assessed from Google.com 7/8/2015.**

**Applicant:** New Cingular Wireless PCS, LLC  
**Project Number:** CT1931401  
**Project Location:** 351A Boston Post Road, East Lyme, CT, 06333



**CO SUBMISSION PACKET – FCC FORM 620**



**Photograph 13.**  
**View looking northeast towards 365 Boston Post Road (ca. 1770) from Boston Post Road.**  
**Assessed from Google.com 7/8/2015.**

**Applicant:** New Cingular Wireless PCS, LLC  
**Project Number:** CT1931401  
**Project Location:** 351A Boston Post Road, East Lyme, CT, 06333

**CO SUBMISSION PACKET – FCC FORM 620**



**Photograph 14.**  
**View looking northeast towards the Subject Property from 365 Boston Post Road.**  
**Assessed from Google.com 7/8/2015.**

**Applicant:** New Cingular Wireless PCS, LLC  
**Project Number:** CT1931401  
**Project Location:** 351A Boston Post Road, East Lyme, CT, 06333

## **CO SUBMISSION PACKET – FCC FORM 620**

### **Attachment 3 – Site Information – Map Requirements**

*Include one or more 7.5-minute quad USGS topographical maps that:*

- a. Identify the Areas of Potential Effects for both Direct and Visual Effects. If a map is copied from the original, include a key with name of quad and date.*
- b. Show the location of the proposed collocation site and any new access roads or other easements including excavations.*
- c. Show the locations of each property listed.*
- d. Include keys for any symbols, colors, or other identifiers.*
- e. Submit color maps whenever possible.*

### **The following maps are attached to this report:**

- Figure 1 – Topographic Map.
- Figure 2 – Historic Map, 1856.
- Figure 3 – Historic Map, 1868.
- Figure 4 – Historic Aerial Image, 1934.
- Figure 5 – Historic Aerial Image, 1965.
- Figure 6 – Aerial Image, 1990.
- Figure 7 – Aerial Image, 2014.
- Figure 8 – Archaeological Resources Map.
- Figure 9 – National Register of Historic Places Resources Map.
- Figure 10 – Photograph Directions Map #1.
- Figure 11 – Photograph Directions Map #2.
- Figure 12 – Bing Aerial Photograph.

**Applicant:** New Cingular Wireless PCS, LLC

**Project Number:** CT1931401

**Project Location:** 351A Boston Post Road, East Lyme, CT, 06333



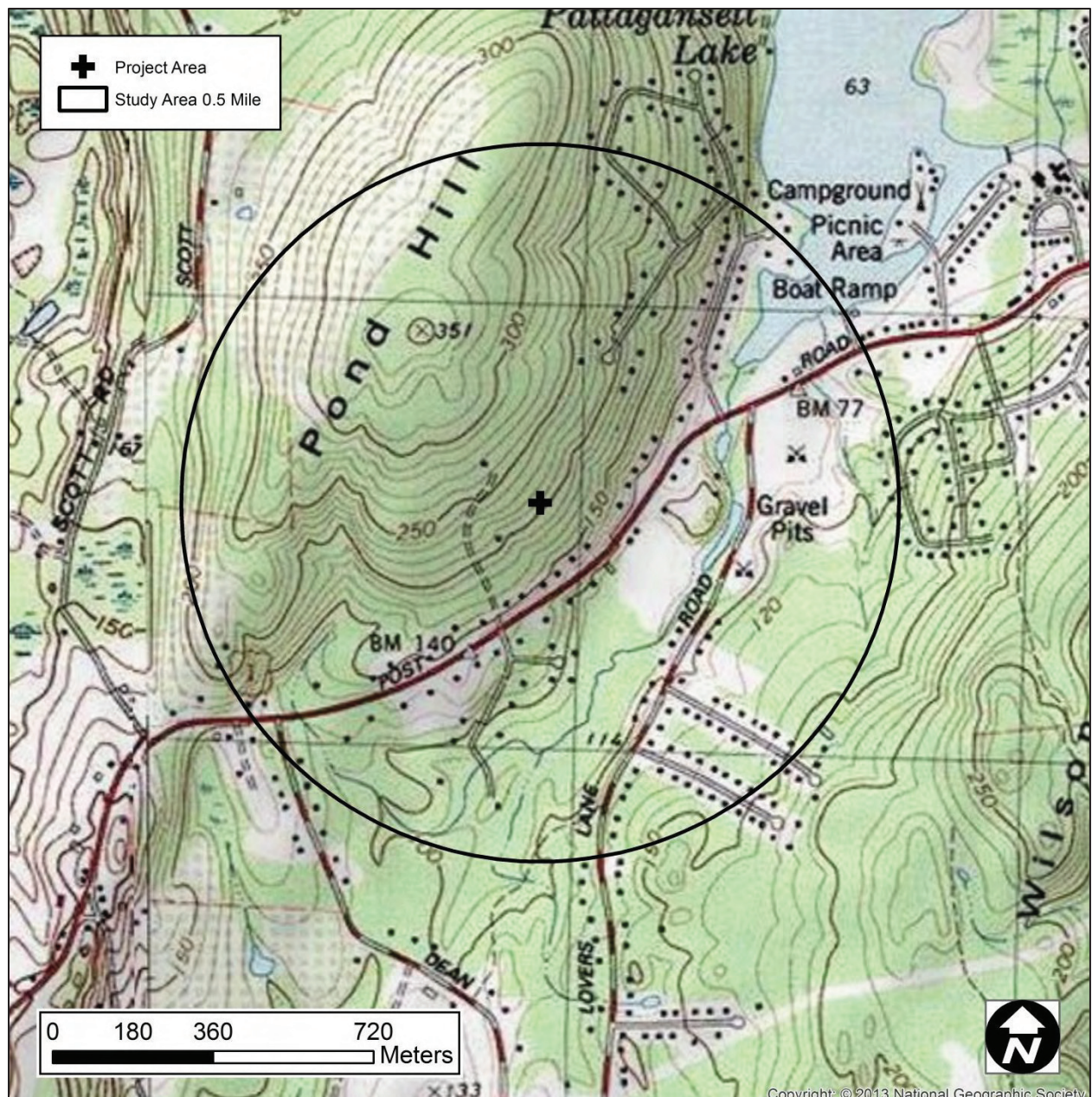


Figure 1. Excerpt from recent USGS topographic quadrangle map depicting the proposed tower location in East Lyme, Connecticut.







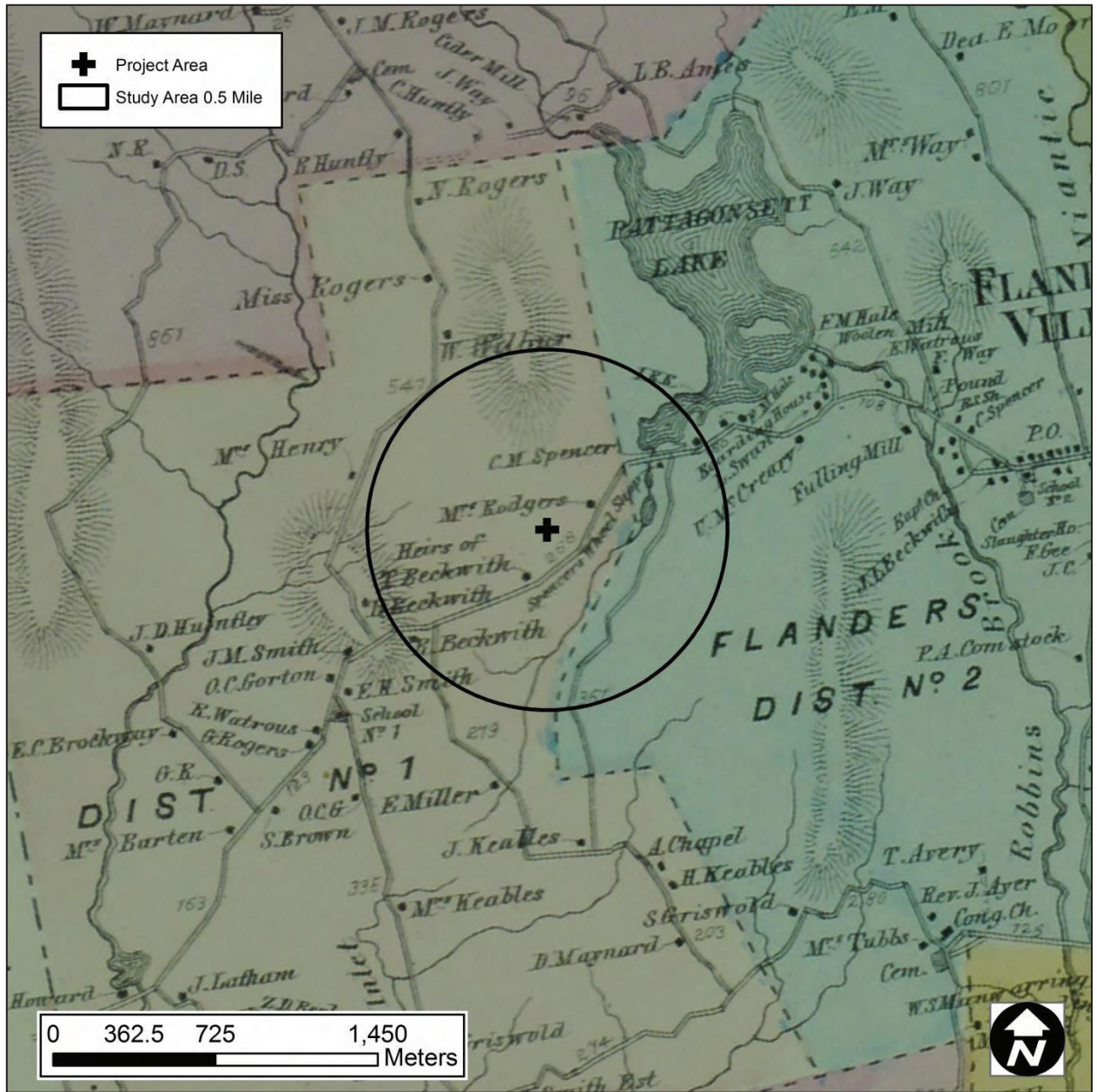


Figure 3. Excerpt from an 1868 historic map depicting the proposed tower location in East Lyme, Connecticut.





Figure 4. Excerpt from a 1934 aerial image depicting the proposed tower location in East Lyme, Connecticut.



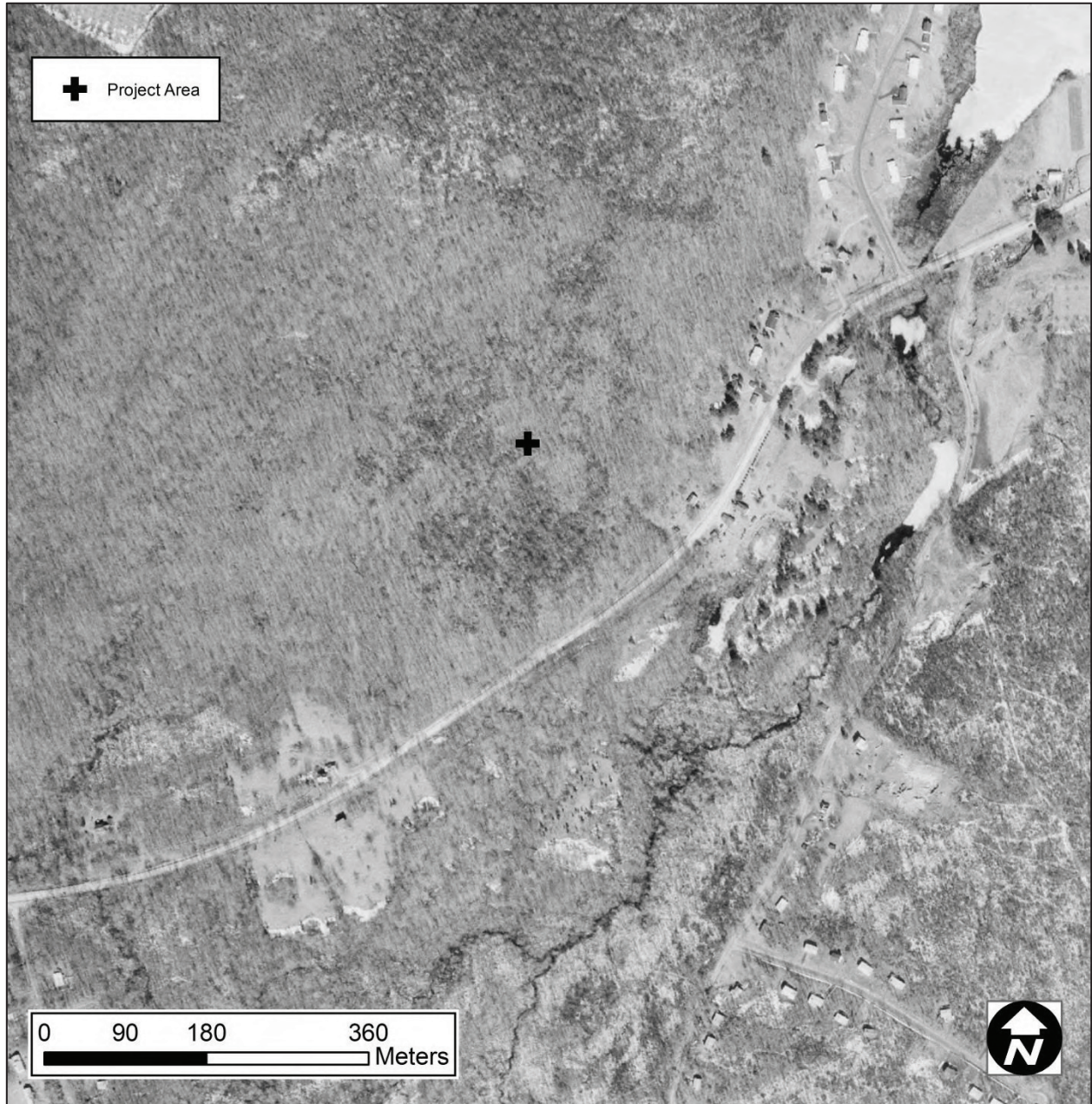


Figure 5. Excerpt from a 1965 aerial image depicting the proposed tower location in East Lyme, Connecticut.



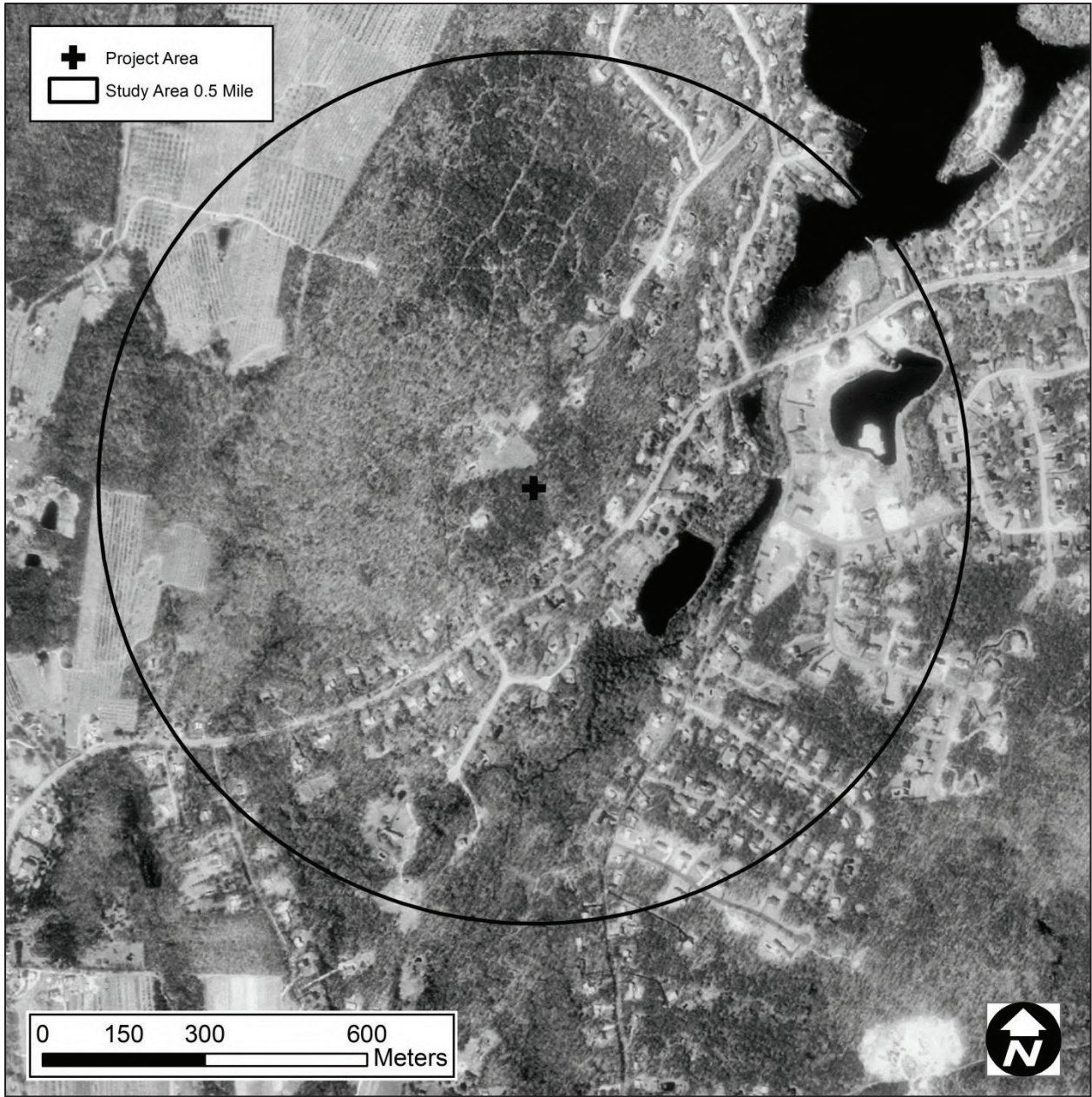


Figure 6. Excerpt from a 1990 aerial image depicting the proposed tower location in East Lyme, Connecticut.





Figure 7. Excerpt from a 2014 aerial image depicting the proposed tower location in East Lyme, Connecticut.

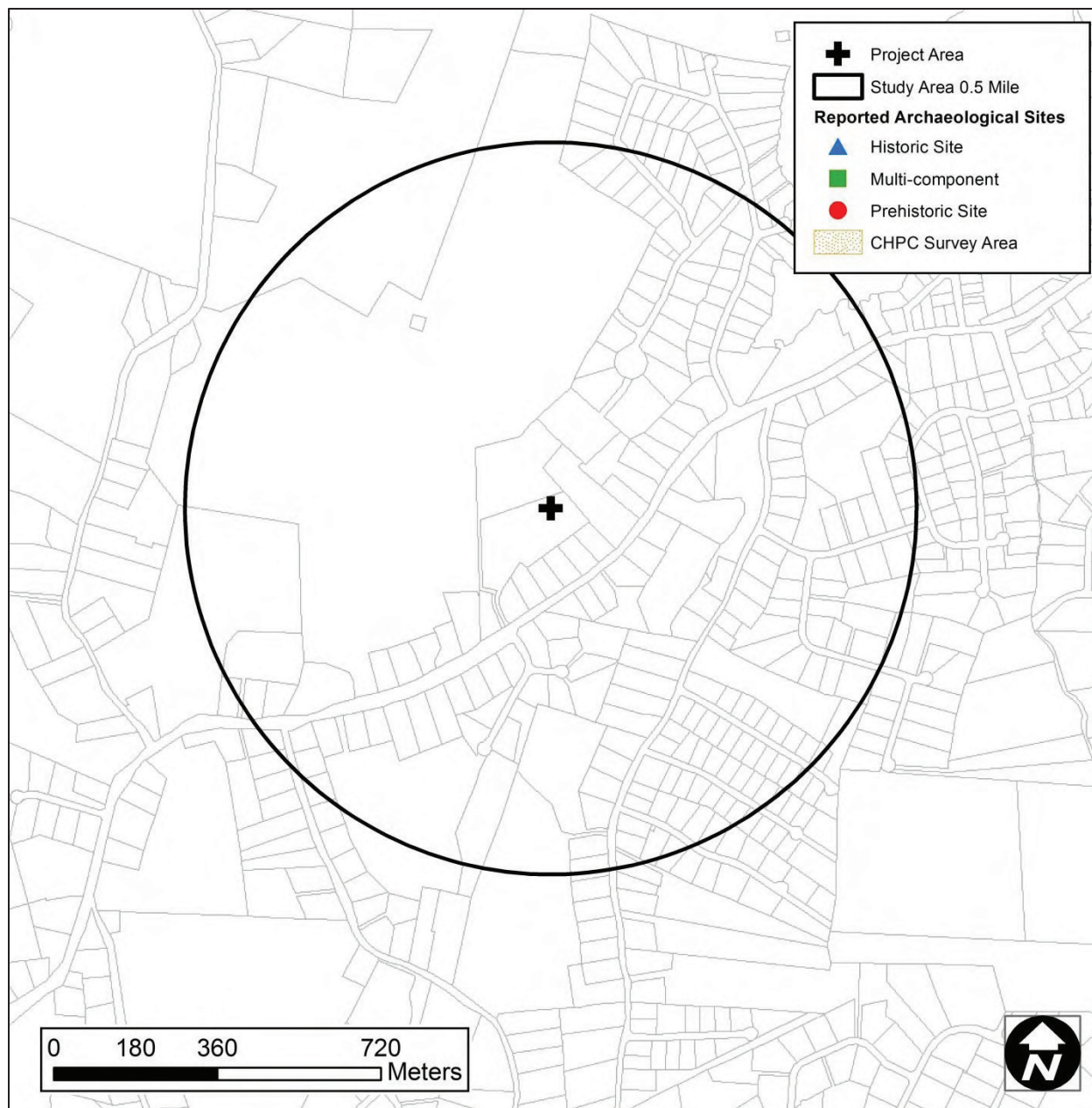


Figure 8. Digital map depicting the locations of previously recorded archaeological sites in the vicinity of the proposed tower location in East Lyme, Connecticut.