



## AVIAN RESOURCES EVALUATION

**April 9, 2016**

**Eversource Energy  
56 Prospect Street  
Hartford, Connecticut 06103**

**APT Project No.: CT259180**

**Re: Proposed East High Street  
Microwave Facility  
22 East High Street  
East Hampton, Connecticut**

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Eversource Energy ("Eversource") proposes to construct a new wireless telecommunications Facility at 22 East High Street in East Hampton, Connecticut (the "host Property"). The host Property consists of an approximately 11-acre Eversource service center parcel. The area proposed for the Facility is located in the central portion of the host Property in an area that is currently comprised of a developed and disturbed area associated with the existing Eversource Service Center. Eversource proposes to install a 120-foot tall self-supporting lattice tower within a 31-foot by 31-foot gravel compound area surrounded with a chain link fence ("Facility"). Access to the Facility is provided by the existing paved access that serves the Eversource service center.

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 Station 43 in South Windsor located approximately 18.3 miles to the northwest. Station 43 is an approximately 10-acre reserve owned by the Hartford Audubon Society. It consists of a pond and associated fresh water wetland complex. For over 100 years Station 43 has been recognized as one of the most important habitats for birds in the Hartford area and for birds migrating along the Connecticut River corridor. 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 an estuarine beachshore area associated with the Connecticut River located approximately 3.4 miles to the southwest. Based on the distance separating this resource from the proposed Facility, no adverse impacts are anticipated.

## **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

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<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

public to estimate population trends and relative abundances and to assess bird conservation priorities. The nearest survey route to the Host Property is the Mid Haddam Survey Route (Route #18014) located approximately 0.16 mile to the west. This ±26-mile long bird survey route begins at the Salem/East Haddam town line near Lake Hayward and generally winds its way northwest through Haddam and East Hampton before terminating in Portland. 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, Beelzebub Street, is located in South Windsor, approximately 16 miles to the north 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 ±16-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 towns East Hampton and Middletown along the Connecticut River approximately 3.5 miles southwest 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

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<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].

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. No known bald eagle nests occur in the vicinity of the host Property.

Therefore, no adverse impacts to migrating Bald Eagle are anticipated with development of the Facility. This conclusion is based on the short (120-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 Middlesex County, approximately 21 miles north of Long Island Sound. 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 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 Salmon River, located approximately 3.3 miles to the southwest. The Pocotopaug Creek riparian corridor, located 0.08 mile west of the Host Property is not identified as a potential flyway but potentially forms a secondary flyway as birds move northward from the Salmon River corridor during

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<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.

<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>

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 self-supporting lattice structure only 120 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 (120-foot) height, and the distances separating the Host Property from the potential Salmon River flyway. The design and height of the proposed Facility would also mitigate the potential for migratory bird impacts should the Pocotopaug Creek be used as a secondary flyway.

## **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. 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

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<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 3rd 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.

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 Pine Brook Marsh in East Hampton, is located approximately 1.75 miles to the southwest of the Host Property. The associated species are identified as American Black, Mallard, Green Wing teal, and wood ducks. 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 the available NDDB maps, although the proposed Facility is located not within a shaded NDDB buffer area the east side of the host Property just encroaches into a NDDB buffer area. Therefore, the proposed project could potentially conflict with a listed rare species. As a result, APT has submitted a review request with respect to this project to confirm that no known populations of Federal or State Endangered, Threatened or Special Concern Species occur on this property. A response from CTDEEP is currently pending and will be forwarded upon receipt.

## **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

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<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.

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 Eversource.

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 120-foot self-supporting lattice 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.

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, portions of which likely provide foraging and roosting habitat and potential nesting habitat, is located approximately 3.5 miles southwest 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,*

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<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/>>

<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>

*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. The proposed Facility would be located within a developed and disturbed area associated with the Eversource service center which does not support habitat for wildlife, including state or federal threatened or endangered avian species or state special concern avian 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 (120 feet AGL) is less than 199 feet and would not require any aviation safety lighting.

- 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 the development footprint associated with the Eversource service center use of the host Property and therefore will 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 bird 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>1516</sup>

The Eversource service center, located adjacent to Route 66, includes existing parking lot lighting. Security lighting for proposed Facility would not appreciably add to the existing nighttime illumination associated with parking lot lighting and Route 66.

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 Eversource, 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 self-supporting lattice structure only 120 feet in height. APT recommends that a copy of this report be submitted to USFWS if the proposed Facility is constructed.

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<sup>15</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>16</sup> U.S. Fish and Wildlife Service. 2012. U.S. Fish and Wildlife Service Land-Based Wind Energy Guidelines. March, 82 pp.

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 Eversource'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.

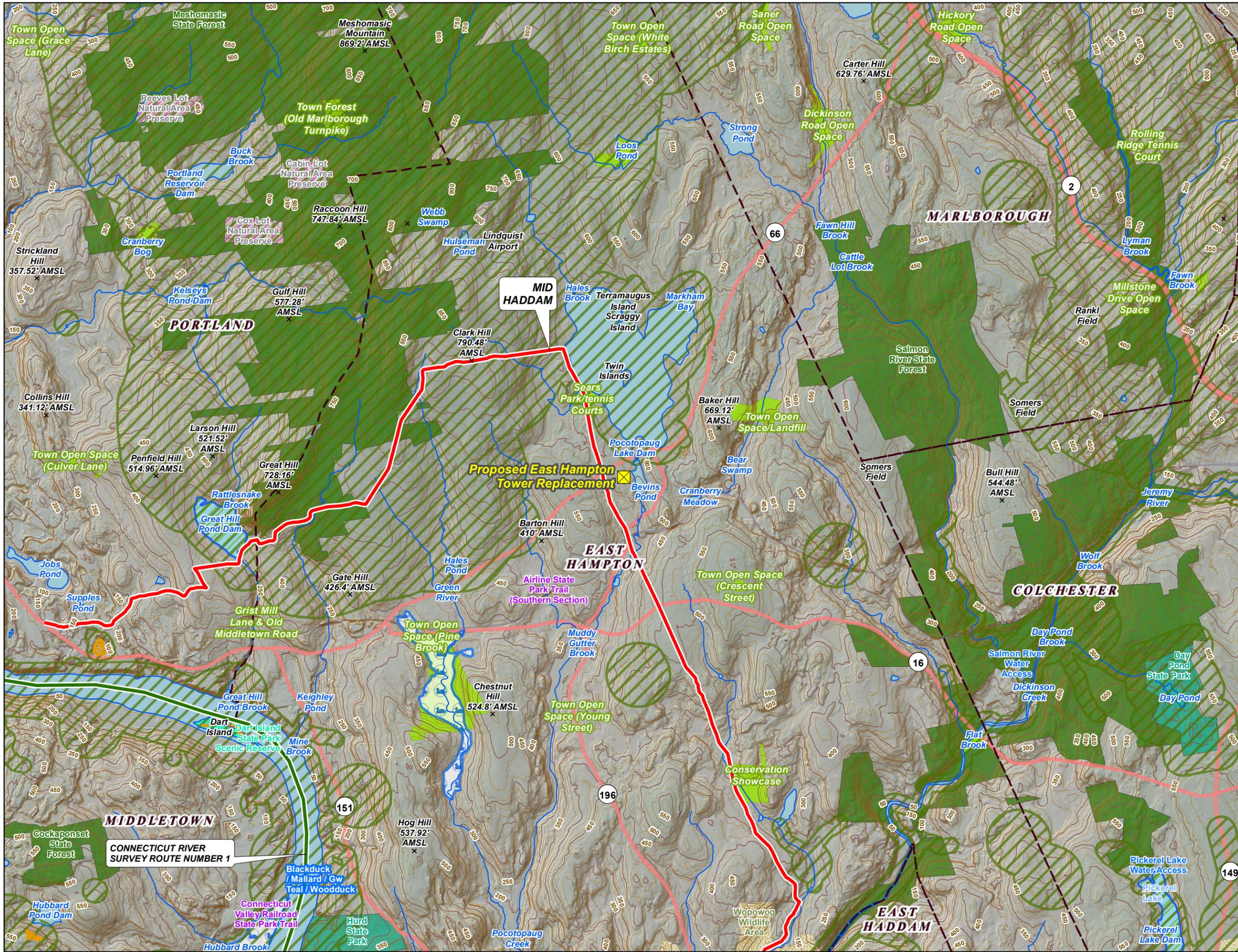
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# Figures

- Avian Resources Map
- Connecticut Waterfowl Focus Areas Map

# Avian Resources Map

Proposed Telecommunications Facility  
 East Hampton Tower Replacement Tower  
 22 East High Street  
 East Hampton, Connecticut



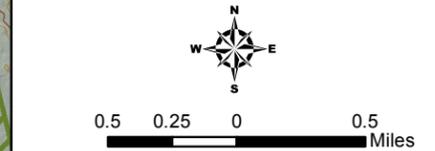
## Legend

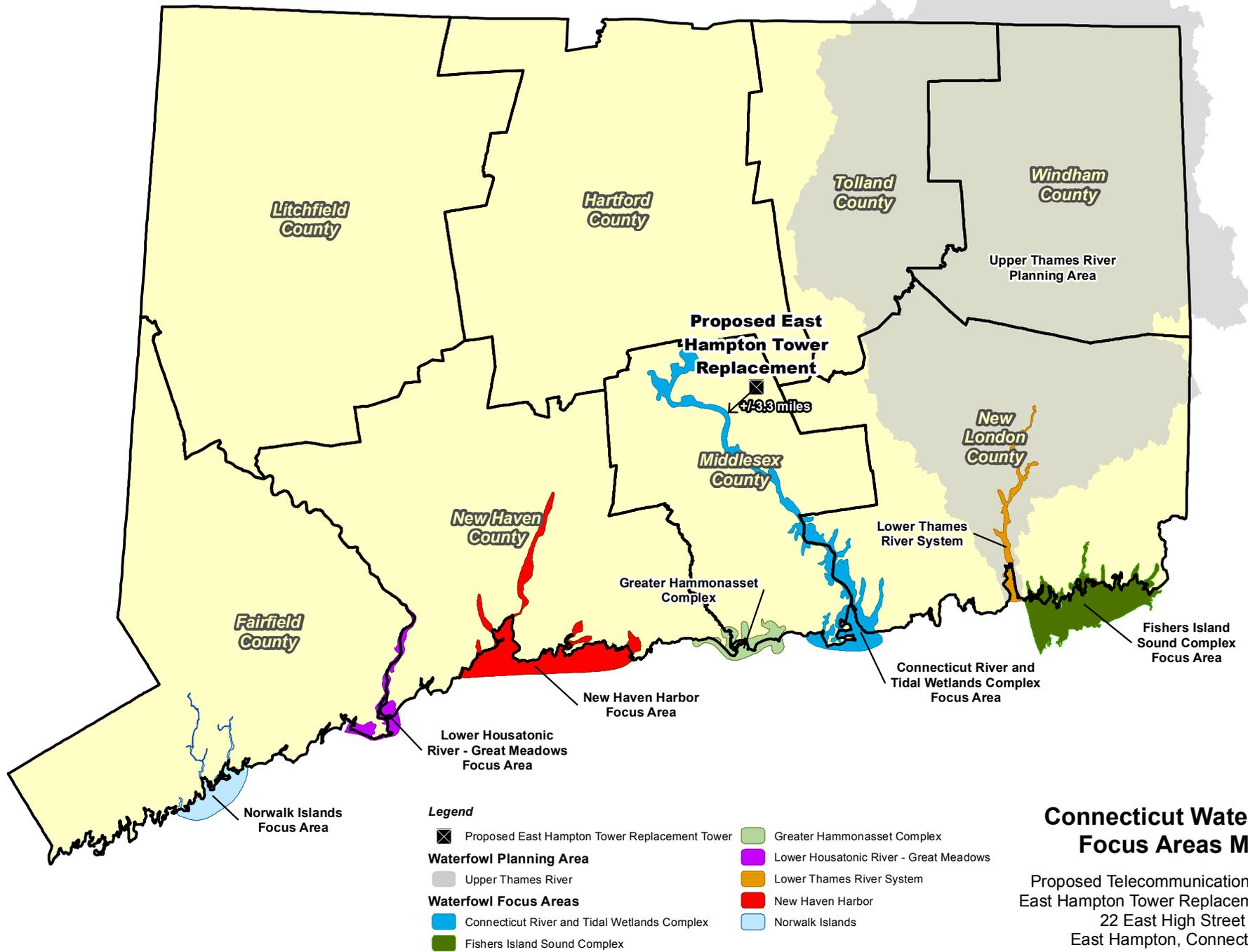
- Proposed Facility
- Hawk Watch Site\*
- Important Bird Area\*
- Bald Eagle Survey Route
- Breeding Bird Survey Route
- Natural Diversity Database (CTDEEP, 9/2015)
- Critical Habitat (CTDEEP, 07/2009)
- Migratory Waterfowl (CTDEEP, 1999)
- Preserved Open Space (CTDEEP, 1997)
- Federal Open Space (CTDEEP, 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 Biological 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/bbsrsl.html>

Base Map Source: 2012 aerial photograph (CTECO map service)  
 Map Date: March 2016





## Connecticut Waterfowl Focus Areas Map

Proposed Telecommunications Facility  
 East Hampton Tower Replacement Tower  
 22 East High Street  
 East Hampton, Connecticut