

ATTACHMENT 6

February 6, 2022

APT Project No.: CT2831040

Prepared For: Homeland Towers, LLC
9 Harmony Street, 2nd Floor
Danbury, CT 06810

Site Name: CT076 Brookfield South

Site Address: 60 Vale Street, Brookfield, Connecticut

Date of Investigation: 11/11/2021

Field Conditions: **Weather:** partly cloudy, high 50's
Soil Moisture: dry to moist

Wetland/Watercourse Delineation Methodology¹:

- Connecticut Inland Wetlands and Watercourses
 U.S. Army Corps of Engineers

Municipal Upland Review Area: **Wetlands:** 75 feet (Min.) **Watercourses:** 100 feet (Min.)

The wetlands inspection was performed by²:



Matthew Gustafson, Registered Soil Scientist

Enclosures: Wetland Delineation Field Form & Wetland Inspection Map

This report is provided as a brief summary of findings from APT's wetland investigation of the referenced Study Area that consists of proposed development activities and areas generally within 200 feet.³ If applicable, APT is available to provide a more comprehensive wetland impact analysis upon receipt of site plans depicting the proposed development activities and surveyed location of identified wetland and watercourse resources.

¹ Wetlands and watercourses were delineated in accordance with applicable local, state and federal statutes, regulations and guidance.

² All established wetlands boundary lines are subject to change until officially adopted by local, state, or federal regulatory agencies.

³ APT has relied upon the accuracy of information provided by Homeland Towers LLC regarding the location and limits of the Study Area for the purposes of identifying wetlands and watercourses.

Attachments

- Wetland Delineation Field Form
- Wetland Inspection Map

Wetland Delineation Field Form

Wetland I.D.:	Wetland 1	
Flag #'s:	WF 1-01 to 1-14 (Loop)	
Flag Location Method:	Site Sketch <input checked="" type="checkbox"/>	GPS (sub-meter) located <input checked="" type="checkbox"/>

WETLAND HYDROLOGY:

NONTIDAL

Intermittently Flooded <input type="checkbox"/>	Artificially Flooded <input type="checkbox"/>	Permanently Flooded <input type="checkbox"/>
Semipermanently Flooded <input type="checkbox"/>	Seasonally Flooded <input type="checkbox"/>	Temporarily Flooded <input type="checkbox"/>
Permanently Saturated <input type="checkbox"/>	Seasonally Saturated/seepage <input type="checkbox"/>	Seasonally Saturated/perched <input checked="" type="checkbox"/>
Comments: Wetland 1 consists of an isolated depression which experiences seasonal saturation resulting from a perched seasonal groundwater table.		

TIDAL

Subtidal <input type="checkbox"/>	Regularly Flooded <input type="checkbox"/>	Irregularly Flooded <input type="checkbox"/>
Irregularly Flooded <input type="checkbox"/>		
Comments: None		

WETLAND TYPE:

SYSTEM:

Estuarine <input type="checkbox"/>	Riverine <input type="checkbox"/>	Palustrine <input checked="" type="checkbox"/>
Lacustrine <input type="checkbox"/>	Marine <input type="checkbox"/>	
Comments: None		

CLASS:

Emergent <input type="checkbox"/>	Scrub-shrub <input checked="" type="checkbox"/>	Forested <input checked="" type="checkbox"/>
Open Water <input type="checkbox"/>	Disturbed <input checked="" type="checkbox"/>	Wet Meadow <input type="checkbox"/>
Comments: None		

WATERCOURSE TYPE:

Perennial <input type="checkbox"/>	Intermittent <input type="checkbox"/>	Tidal <input type="checkbox"/>
Watercourse Name: None		
Comments: None		

Wetland Delineation Field Form (Cont.)

SPECIAL AQUATIC HABITAT:

Vernal Pool Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Potential <input type="checkbox"/>	Other <input type="checkbox"/>
Vernal Pool Habitat Type: None	
Comments: None	

SOILS:

Are field identified soils consistent with NRCS mapped soils?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>
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DOMINANT PLANTS:

Red Maple (<i>Acer rubrum</i>)	Green Ash (<i>Fraxinus pennsylvanica</i>)
Silky Dogwood (<i>Cornus amomum</i>)	Sensitive Fern (<i>Onoclea sensibilis</i>)
Japanese Knotweed* (<i>Polygonum cuspidatum</i>)	

* denotes Connecticut Invasive Species Council invasive plant species

GENERAL COMMENTS:

All-Points Technology Corp., P.C. ("APT") understands that Homeland Towers proposes to construct a wireless telecommunications facility ("Facility") located within an existing developed and disturbed area associated with a material storage yard in the northeastern portion of property located at 60 Vale Road in Brookfield, Connecticut ("Subject Property"). The location of the facility consists of exposed sands and gravels bordering an upland forest patch dominated by red oak, juniper, burning bush and autumn olive. One wetland was identified on the Subject Property in proximity to the proposed Facility.

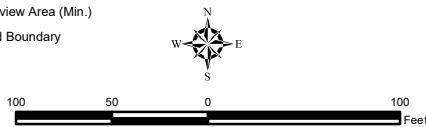
Wetland 1 consists of an isolated depressional wetland formed in place. No outlet to a larger wetland system located across Vale Road to the east was observed. A single stormwater outfall in the southeast corner of the resource was observed. This wetland is confined on all sides by steep fill embankments associated with the surrounding Subject Property development (north, west, and south) and Vale Road (east). Based on observations of soil profiles within Wetland 1, it appears that this wetland formed in place and was cut off from the larger forested swamp to the east when Vale Road was constructed.

Due to the proposed Facility entirely being located within an existing developed and disturbed area and more than 100 feet from wetlands, the proposed development is not anticipated to have a likely adverse impact to Wetland 1. APT recommends appropriate erosion controls are designed, installed, and maintained in accordance with the *2002 Connecticut Guidelines For Soil Erosion and Sediment Control* to protect Wetland 1 during the Facility's construction activities.



- Legend**
- Subject Property
 - Proposed Compound
 - Proposed Lease Area
 - Proposed Utilities**
 - Proposed Underground Utilities
 - Proposed Overhead Utilities (Alternate Utility Routing)
 - Existing Utility Pole (By Others)
 - Proposed Utility Pole (Alternate Utility Routing)
 - Wetland Flag
 - Approximate Wetland Area
 - 75-Foot Upland Review Area (Min.)
 - Delineated Wetland Boundary
 - Approximate Parcel Boundary

Map Notes:
 Base Map Source: 2019 CT Aerial Imagery (CTECO)
 Map Scale: 1 inch = 100 feet
 Map Date: July 2022



Wetland Inspection Map
 Proposed Wireless Telecommunications Facility
 Brookfield South
 60 Vale Road
 Brookfield, Connecticut





AVIAN RESOURCES EVALUATION

July 25, 2022

Homeland Towers, LLC
9 Harmony Street, 2nd Floor
Danbury, Connecticut 06810

Re: CT076 Brookfield South Facility
60 Vale Road, Brookfield, Connecticut
APT Job No: CT 2831040

Homeland Towers, LLC ("Homeland") proposes to construct a new wireless telecommunications Facility at 60 Vale Road in Brookfield, Connecticut (the "host Property"). The host Property consists of an approximately 4-acre commercially developed parcel. The area proposed for the Facility is located in the northern portion of the host Property (the "Site") in an area that is currently comprised of a developed and disturbed area associated with the existing commercial development. Homeland proposes to install a 165-foot tall monopole tower and ground equipment enclosure within a 45-foot by 70-foot gravel compound area surrounded with an 8-foot tall chain link fence ("Facility"). Underground electrical and telephone service will extend from Vale Road to the Facility and the existing paved and gravel drive that services the commercial development will be used for access.

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 telecommunication towers to impact bird species. It is not definitively understood why direct and indirect bird mortality occurs around towers, but evidence suggests that night-migrating songbirds are either attracted to or disoriented by tower obstruction warning lighting systems, especially during overcast (i.e., low cloud ceiling), foggy, or other low visibility conditions. Additionally, birds moving across the landscape at night can collide with guy wires from lighted towers when they are placed in high bird movement areas. Tower height also appears to have a relationship to bird collisions with towers greater than 199 feet above ground level that can intercept the average bird flight height resulting in greater potential for collisions. Towers less than 200 feet provide sufficient airspace between the top of the tower and average bird flight height, even in weather conditions with reduced cloud ceiling, significantly lessening the potential for bird collisions. The proposed Facility consists of a 165-foot tall monopole, is unlit and does not contain guy wires, all design considerations that limit bird collisions.

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 evaluation did not include collection of field data at the Site or surveys for avian species. The desktop analysis and attached graphics identify avian resources and their proximities to the host Property as a means of evaluating the Site's relationship to potential areas of bird concentrations. Information within an approximate 3-mile study area 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 that focuses on the study area. 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 behavior¹. The closest IBA to the host Property is the Audubon Center at Bent of the River, located in Southbury approximately 6.7 miles to the northeast. Encompassing a wide variety of relatively undisturbed upland and wetland habitats, this 554-acre historic estate (with an additional ±100 acres in conservation easements) serves as a model land management preserve dedicated to environmental education, research and bird conservation. This IBA contains exceptional habitats for birds and other wildlife, including managed shrubland habitats providing nesting habitat for early successional species of conservation concern. Approximately 30% of the site is forested, and includes red oak, juniper, red maple, green ash, an isolated depressional wetland, with burning bush, autumn olive, and Japanese knotweed understory.

Due to its distance from the host Property, 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 additional avian resources and their proximities to the host Property were analyzed, as depicted on the attached Avian Resources and Waterfowl Focus Area maps. Although these data sources may not represent habitat indicative of important bird areas, they may indicate possible bird concentrations² 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 palustrine floodplain forest area associated with Still River located approximately 1.6 miles to the north. Based on the distance separating this resource from the proposed Facility, no adverse impacts are anticipated.

¹ http://web4.audubon.org/bird/iba/iba_intro.html

² “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 Danbury Breeding Bird Survey Route (Route #18011) located approximately 4.6 miles to the west. This ±23-mile long bird survey route begins on Ridgebury Road in Ridgebury and generally winds its way north through Danbury before terminating in New Fairfield on the west bank of Candlewood Lake. 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, Whippoorwill Hill, is located in Newton, approximately 3 miles to the southeast 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 ±3-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 Lake Candlewood Survey Route No. 8 (Lake Candlewood Shoreline) located in the towns of Sherman, New Fairfield, Danbury, and Brookfield approximately 1.7 miles northwest 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.³ 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.⁴ 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).⁵

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 (165-foot) height of the Facility, eagle migration patterns during the daytime under favorable weather conditions when thermals form, compliance with USFWS bald eagle management guidelines and the 1.7-mile separating distance.

Flyways

The host Property is located in Fairfield County, approximately 21.8 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)⁶ 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 Survey⁷), which consisted of collection

³ 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].

⁴ 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.

⁵ 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.

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

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

of migratory bird data along the Connecticut River and the following major Connecticut River tributaries: Farmington, Hockanum, Scantic, Park, Mattabeset, Salmon, and Eight Mile Rivers. Of these potential flyways, the nearest to the host Property is the Housatonic River, located approximately 4.9 miles to the northeast. The Still River riparian corridor, located ± 0.23 miles northwest of the host Property, is not identified as a potential flyway but potentially forms a secondary flyway as birds disperse northward through this smaller riparian corridor during the spring migration. These types of smaller (compared to the designed flyways) riparian corridors may provide secondary flyways as they likely offer more food and protection than more exposed upland sites, particularly during the spring migration⁸.

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)⁹. The proposed Facility is not this type of tower, being an unlit, unguyed monopole structure only 165 feet in height. More recent studies of short communication towers (<300 feet) reveal that they rarely kill migratory birds¹⁰. 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)¹¹.

No adverse impacts to migrating bird species are anticipated with development of the Facility, based on its design (unlit and unguyed) and relatively short (165-foot) height, and the distances separating the host Property from designated flyways. The design and height of the proposed Facility would also mitigate the potential for migratory bird impacts should the Still River 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 Norwalk Islands area, located approximately 16 miles to the south. 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.

⁸ The Silvio O. Conte National Fish & Wildlife Refuge Neotropical Migrant Bird Stopover Habitat Survey. http://www.science.smith.edu/stopoverbirds/Chapter5_Conclusions&Recommendations.html

⁹ 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.

¹⁰ 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.

¹¹ 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.

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, Bantam Lake, in Litchfield and Morris, is located approximately 16 miles to the northeast of the host Property. The associated species are identified as bufflehead, Canada goose, mallard, green wing teal, and wood duck. 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, the proposed Project is not located within any shaded NDDB buffer areas with the nearest area ± 0.17 mile to the north associated with the Still River. Since no NDDB buffer area is located on the host Property, proposed Facility is not anticipated to conflict with any listed rare species.

USFWS Communications Towers Compliance

In 2021, the USFWS prepared its *Recommended Best Practices for Communication Tower Design, Siting, Construction, Operation, Maintenance, and Decommissioning*¹² for tower construction and operation. These voluntary guidelines are designed to assist tower companies in developing their communication systems in a way which minimizes the risk to migratory birds. APT offers the following responses to each of the USFWS recommendations which are abridged from the original document for brevity.

Siting and Construction of New Towers

1. *Contact with USFWS Office. Communicate project plans to nearest USFWS Field Office*

The USFWS New England Field Office has been contacted to determine what review process has been developed for the receipt of communication project plans. A response has not been received to date.

2. *Collocation of the communications equipment on an existing communication tower or other structure (e.g., billboard, water and transmission tower, distribution pole, or building mounts). This recommendation is intended to reduce the number of towers across the landscape.*

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.

3. *All new towers should be sited to minimize environmental impacts to the maximum extent practicable.*

a. *Place new towers within existing "antenna farms" (i.e., clusters of towers) when possible.*

There are no existing "antenna farms" in the vicinity of the proposed tower site that would satisfy the RF coverage objectives of Homeland's tenant(s).

b. *Select already degraded areas for tower placement.*

Tower will be located in an existing developed/degraded area.

c. *Towers should not be sited in or near wetlands, other known bird concentration areas (e.g., state or federal refuges, staging areas, rookeries, and Important Bird Areas), or in known migratory bird movement routes, daily movement flyways, areas of breeding concentration, in habitat of threatened or endangered species, key habitats for Birds of Conservation Concern, or near the breeding areas ("leks") of prairie grouse.*

The proposed Facility is not within wetlands, known bird concentration area, migratory or daily movement flyway or result in fragmentation of a core forest habitat that could potentially provide habitat for Birds of Conservation Concern.

¹² Migratory Bird Program, U.S. Fish and Wildlife Service. March 2021. Recommended Best Practices for Communication Tower Design, Siting, Construction, Operation, Maintenance, and Decommissioning. These recommendations replace all previous recommendations for communication tower construction and operation. These recommendations have been modified and updated from previous versions to incorporate the state of the science and the 2020 Federal Aviation Administration [Obstruction Marking and Lighting Advisory Circular AC 70/7460-1M](#).

- d. *Towers should avoid ridgelines, coastal areas, wetlands or other known bird concentration areas.*

The Facility is not sited on a ridgeline and is not located within coastal areas, wetlands or other known bird concentration areas.

- e. *Towers and associated facilities should be designed, sited, and constructed so as to avoid or minimize habitat loss within and adjacent to the tower "footprint". In addition, several shorter, un-guyed towers may be preferable to one, tall guyed, lit tower.*

The Facility has been designed to avoid impacts to wetland habitat and minimizes to the degree possible impact to forested uplands with the access road and tower compound. The host Property is currently improved with a commercial operation that does not support wildlife habitat in a significant capacity and the Facility would be sited within an existing developed and disturbed area that will result in minimal tree removal. The proposed 165-foot tall monopole tower is self-supporting (no guys) and is unlit.

4. *During construction, the following considerations can reduce the risk of take of birds:*

- a. *Schedule all vegetation removal and maintenance (e.g., general landscaping activities, trimming, grubbing) activities outside of the peak bird breeding season to reduce the risk of bird take.*

Tower will be located in a previously developed area with minimal tree clearing needed.

- b. *When vegetation removal activities cannot avoid the bird breeding season, conduct nest clearance surveys.*

The developed host Property's limited vegetation is surrounded by industrial and commercial development and therefore likely supports minimal bird breeding activity. The limited tree removal associated with development of the Facility is not expected to impact bird breeding or nesting activity.

- c. *Prevent the introduction of invasive plants during construction to minimize vegetation community degradation by: Use only native and local (when possible) seed stock for all temporary and permanent vegetation establishment; and ii. Use vehicle wash stations prior to entering sensitive habitat areas to prevent accidental introduction of non-native plants.*

With the existing developed and disturbed nature of the host Property, development of the proposed Facility would not be considered a significant vector for introduction of invasive plant species particularly since invasive plants are pervasive in both the uplands and nearby wetlands on the Property.

5. *Tower design should consider the following attributes:*

It is recommended that new towers should be not more than 199 ft. above ground level (AGL).

The Facility satisfies this recommendation with a height of 165 feet AGL.

- a. *Guy Wires. We recommend using free standing towers such as lattice towers or monopole structures.*

The Facility satisfies this recommendation with a self-supporting monopole structure.

- b. *Lights are a primary source of bird aggregation around towers, thus minimizing all light is recommended. No tower lighting is the preferred option if Federal Aviation Administration (FAA) regulations and lighting standards (FAA 2015, 2020, Patterson 2012) permit.*

The Facility will not contain tower lighting.

Operation and Maintenance of All Towers

6. *We recommend that existing infrastructure be unlit, when allowed by FAA regulations. If associated buildings require security or operational lighting, minimize light trespass using motion sensors and down-shielding with minimum intensity light.*

Equipment within the compound requires security lighting, which will be set on motion sensors, down-shielded and minimum intensity lighting. Building and parking lot lighting already exists on the host Property associated with the existing commercial operation.

7. *Schedule all vegetation removal and maintenance (e.g., general landscaping activities, trimming, grubbing, etc.) activities outside of the peak bird breeding season to reduce the risk of bird take. When vegetation removal activities cannot avoid the bird breeding season, conduct nest clearance surveys.*

Once the Facility is constructed, minimal vegetation maintenance is anticipated and would only occur immediately adjacent to the tower compound and access road, both areas of which would support limited bird nesting habitat due to the existing developed condition of the host Property. Therefore, restricting this minimal vegetation maintenance work to outside the peak bird breeding season is not considered necessary.

8. *Birds Nesting on Towers: If birds are nesting on communication towers that require maintenance activities, contact the state natural resource protection agency and/or the USFWS for permits, recommendations, and requirements.*

Following construction of the Facility, if tower maintenance activities encounter bird nests, CTDEEP Wildlife Division and USFWS will be contacted.

9. *Representatives from the USFWS or researchers should be allowed access to the site to evaluate bird use, conduct dead-bird searches, and conduct other research, as necessary.*

Homeland agrees upon advance notice from USFWS, to allow agency representatives access to the Facility.

Summary and Conclusions

Based on the results of this desk-top evaluation, no likely adverse impact to migratory bird species would result from Homeland's proposed Facility. The Facility is not proximate to an Important Bird Area and would comply with the USFWS tower design, siting, construction, operation and maintenance recommended best practices for minimizing the potential impacts to bird species.

Sincerely,
All-Points Technology Corporation, P.C.

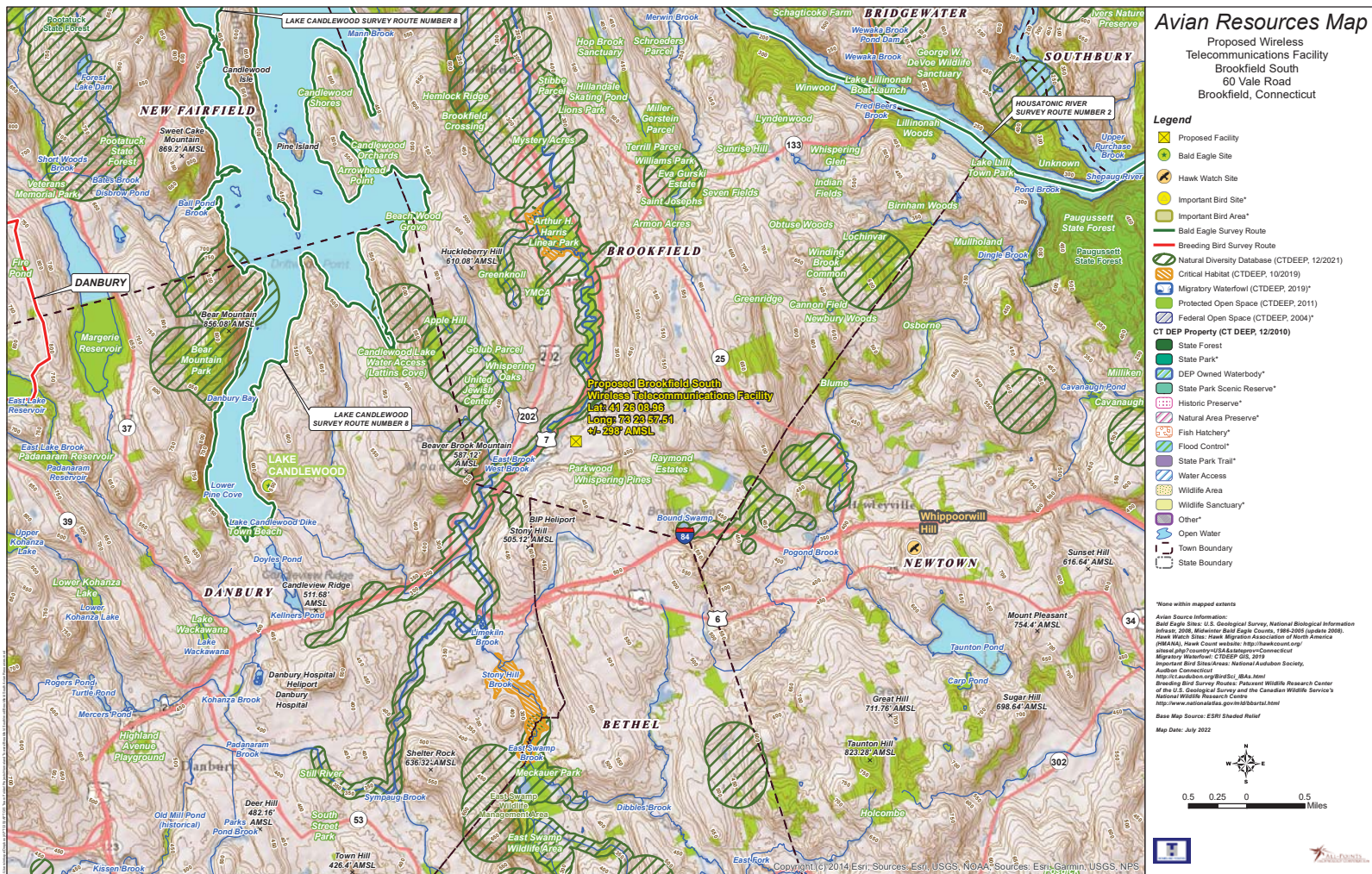


Dean Gustafson
Senior Biologist

Enclosures

Figures

- Avian Resources Map
- Connecticut Waterfowl Focus Areas Map



Avian Resources Map

Proposed Wireless Telecommunications Facility
 Brookfield South
 80 Vale Road
 Brookfield, Connecticut

- Legend**
- Proposed Facility
 - Bald Eagle Site
 - Hawk Watch Site
 - Important Bird Site*
 - Important Bird Area*
 - Bald Eagle Survey Route
 - Breeding Bird Survey Route
 - Natural Diversity Database (CDEEP, 12/2021)
 - Critical Habitat (CDEEP, 10/2019)
 - Migratory Waterfowl (CDEEP, 2019)*
 - Protected Open Space (CDEEP, 2011)
 - Federal Open Spaces (CDEEP, 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
 - State Boundary

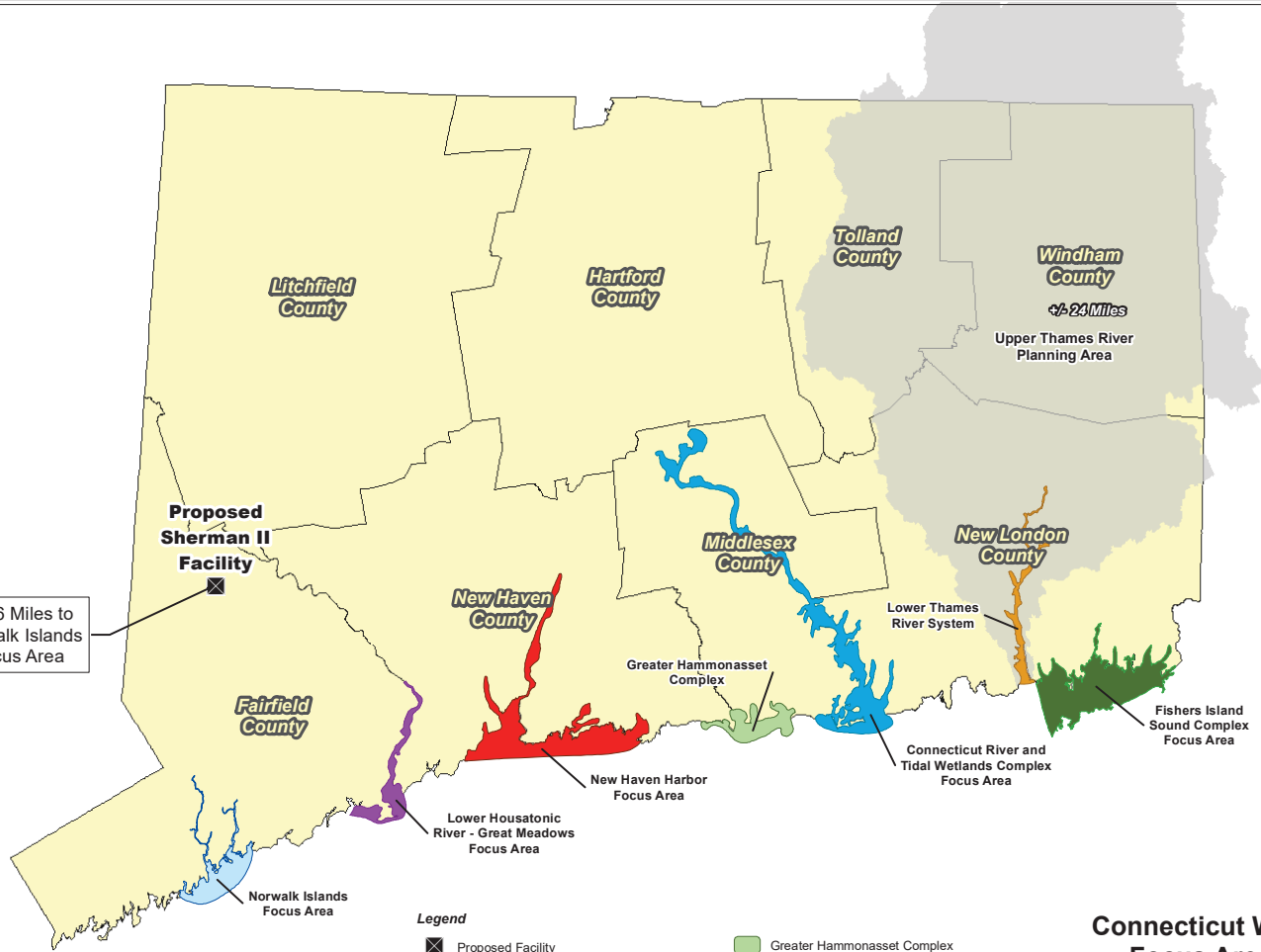
*Data within mapped extents

Avian Source Information:
 Bald Eagle Sites: U.S. Geological Survey, National Biological Information Infrastructure, 2008. <http://www.fws.gov/bald>
 Hawk Watch Sites: Hawk Migration Association of North America (HMAA), Hawk Count events: <http://hawkcount.org>
 Important Bird Areas: U.S. Department of the Interior, 2019
 Important Bird Ranges: National Audubon Society, Audubon Connecticut
 Important Bird Ranges: National Audubon Society, Audubon Connecticut
 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.nwrhunting.gov/mbr/important.html>
 Base Map Source: ESRI Standard Relief

Map Date: July 2022

0.5 0.25 0 0.5 Miles

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Legend

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

Connecticut Waterfowl Focus Areas Map

Proposed Wireless
Telecommunications Facility
Brookfield South
60 Vale Road
Brookfield, Connecticut

