AVIAN RESOURCES EVALUATION

May 7, 2018

Verizon Wireless
20 Alexander Drive
Wallingford, CT 06492

APT Project No.: CT1418180

Re: Proposed Pomfret Center CT Facility
72 Ragged Hill Road
Pomfret Center, Connecticut

Cellco Partnership d/b/a Verizon Wireless proposes to construct a new wireless telecommunications Facility at 72 Ragged Hill Road in Pomfret Center, Connecticut (the "host Property"). The host Property consists of an approximately 627.04-acre undeveloped forested parcel. The area proposed for the Facility is located in the central western portion of the host Property in an area that is currently comprised of mature upland hardwood/conifer forest. Three optional tower locations have been identified for consideration. Verizon Wireless proposes to install a monopole tower and ground equipment enclosure within a 50-foot by 50-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 an existing trail in the woods originating off of Swedetown Road in order to gain access and provide electric and telco services to the proposed Facility. Ground elevations at the three locations vary and, as a result, the tallest monopole required for meeting Cellco's coverage objectives would extend to a maximum height of 150 feet above ground level.

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. Considering all three possible tower locations are located in the same general area of the host Property and within 1,100 feet of one another, a central point equidistant from the three optional locations was selected to assess distances from various known or potential avian resources discussed herein.

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[1]. The closest IBA to the host Property is the Bafflin Sanctuary Complex in Pomfret located approximately 4.2 miles to the southeast. Bafflin Sanctuary provides a variety of habitats that support numerous species of birds, including breeding grounds for several species of high conservation priority. Endangered Pied-billed Grebes and American Black Ducks (high conservation priority) have been known to nest in the wetlands here. These areas are also a migratory stopover for American Bittern in the fall. 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 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[2] 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 forested acidic Atlantic white cedar swamp Area associated with Ten Corners/Indian Hill Brook located approximately 0.35 miles to the southwest. Based on the distance separating this resource from the host Property and the fact that all three optional tower locations are in a different local drainage basin that flows generally to the north away from the critical habitat, 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 Woodstock Breeding Bird Survey Route (Route #18005) located approximately 0.12 mile to the west. This ±24-mile long bird survey route begins in Hampton and generally winds its way north through the southeastern part of Eastford, and western portions of Pomfret and Woodstock, before terminating in the northern section of Eastford. 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 25.7 miles to the southwest of the proposed Facility.

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 ±25.7-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 3, which generally follows the South Windsor, Windsor, East Windsor, Windsor Locks, and Enfield municipal boundaries from the southwest corner of South Windsor to the Massachusetts State Line along the Connecticut River, and passes within approximately 30 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.[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 relatively short (150-foot tall) 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 Windham County, approximately 38 miles south 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

[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.

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 Survey[7]), 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 Quinebaug River, located approximately 6.6 miles to the east. The Bungee Brook riparian corridor, located 1.4 miles west of the host Property is not identified as a potential flyway but potentially forms a secondary flyway as birds move northward from the Quinebaug River corridor 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[8].

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 150 feet in height. More recent studies of short communication towers (<300 feet) reveal that they rarely kill migratory birds[10]. 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 (150-foot) height, and the distances separating the host Property from the potential Quinebaug flyway. The design and height of the proposed Facility would also mitigate the potential for migratory bird impacts should the Bungee Brook 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

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[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

[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.

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 Lower Thames River System area, located approximately 24 miles to the south. 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 Hockanum River and Marsh Brook in Ellington, is located approximately 22 miles to the west of the host Property. The associated species are identified as American black duck, 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 a January 18, 2018 letter from the CTDEEP NDDB, "there are no known extant populations of Federal or State Endangered, Threatened or Special Concern Species that occur on this property."

USFWS Communications Towers Compliance

In August 2016, the USFWS prepared its *Recommended Best Practices for Communication Tower Design, Siting, Construction, Operation, Maintenance, and Decommissioning*. These suggested best practices were developed to assist tower companies in developing their communication systems in a way which minimizes the risk to migratory birds and threatened and endangered species. The following avoidance and minimization measures, when used comprehensively, are recommended by USFWS to reduce the risk of bird mortality at communication towers. 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*. *This recommendation is intended to reduce the number of towers across the landscape.*

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

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

   APT completed consultation protocols in accordance with Federal Communications Commission ("FCC") rules implementing the National Environmental Policy Act ("NEPA") and Section 7 of the Endangered Species Act through the USFWS Information, Planning, and Conservation System ("IPaC"). Based on the results of the IPaC review, one federally-listed threatened species is known to occur in the vicinity of the host property: northern long-eared bat ("NLEB"; *Myotis septentrionalis*). As a result of this preliminary finding, APT performed an evaluation to determine if development of the proposed Facility would result in a likely adverse effect to NLEB.

   The three optional locations are within a mixed oak-eastern white pine forest that would require minor tree clearing activities to accommodate the Facility. Consultation with the CTDEEP Wildlife Division Natural Diversity Data Base NDDB revealed that the host Property is not within 150 feet of a known occupied maternity roost tree and is not within 0.25 mile of a known NLEB hibernaculum. The nearest NLEB habitat resource to the proposed activity is located in Granby ±35 miles to the northwest. Therefore, the project would not adversely affect NLEB.

   APT submitted the USFWS's Northern Long Eared Bat final 4(d) rule Streamlined Consultation Form under the consultation framework that allows federal agencies to rely upon the USFWS January 5, 2016, intra-Service Programmatic Biological Opinion ("BO") on the Final 4(d) Rule for the NLEB for section 7(a)(2) compliance. If the USFWS does not respond within 30 days from submittal of this form (August 8, 2017), one may presume that USFWS determination is informed by the best available information and that Cellco's project responsibilities under 7(a)(2) with respect to the NLEB are fulfilled through the USFWS' BO.

   In addition, Cellco would consider following additional recommended measures for NLEB conservation, noted below, as encouraged in the April 29, 2016 FCC Public Notice2, as the project schedule allows.

- Conduct tree removal activities outside of the NLEB pup season (June 1-July 31) and active season (April 1-October 31) to minimize impacts to pups at roosts not yet identified.
- Avoid clearing suitable spring staging and fall swarming habitat within a five-mile radius of known or assumed NLEB hibernacula during the staging and swarming seasons (April 1-May 15 and August 15-November 14, respectively). NOT APPLICABLE.
- Maintain dead trees and large trees when possible.
- Use herbicides and pesticides only if unavoidable.
- Minimize exterior lighting, opting for down-shielded, motion-sensor security lights under towers instead of constant illumination.

3. *Placement. 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 sites that would satisfy the RF coverage objectives.

b. Select already degraded areas for tower placement.

There are no degraded areas in the vicinity of the proposed tower sites that would satisfy the RF coverage objectives.

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, or key habitats for Birds of Conservation Concern.

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

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

The optional Facility sites are not located within any of these 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 proposed Facility will be sited, designed, and constructed to accommodate Cellco's proposed equipment and to allow for future collocations within the smallest footprint possible, thus minimizing habitat fragmentation or the creation of barriers or excessive disturbance. The proposed Facility would consist of a 150-foot tall monopole structure which requires neither guy wires nor lighting and is therefore consistent with USFWS' environmentally preferred "gold standard".

4. *Construction. 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.

   To the extent feasible, Cellco would schedule these activities outside the peak breeding season.

   b. When vegetation removal activities cannot avoid the bird breeding season, conduct nest clearance surveys:
      i. Surveys should be conducted no more than five days prior to the scheduled activity to ensure recently constructed nests are identified;
      ii. Timing and dimensions of the area to be surveyed vary and will depend on the nature of the project, location, and expected level of vegetation disturbance; and
      iii. If active nests are identified within or in the vicinity of the project site, avoid the site until nestlings have fledged or the nest fails. If the activity must occur, establish a buffer zone around the nest and no activities will occur within that zone until nestlings have fledged.

   If construction activities should occur during the peak nesting period of April 15 through July 15[12], efforts would be taken to complete tree clearing work prior to April 15th; 2) or, if tree clearing has not been completed by April 15th, an avian survey may be conducted to determine if breeding birds would be disturbed; and 3) If the avian survey concludes that breeding birds would be disturbed, tree clearing activities may be restricted from the April 15 through July 15 peak nesting period (or a modified time frame based on the specific findings of the survey).
   c. Prevent the introduction of invasive plants during construction to minimize vegetation community degradation by:
      i. 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.

   No landscaping or other vegetation plantings are proposed. No sensitive habitat areas exist at the optional site.

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

   a. Tower Height. It is recommended that new towers should be not more than 199 ft. above ground level (AGL). This height increases the mean free airspace between the top of the tower and average bird flight height, even in weather conditions with reduced cloud ceiling;

   b. Guy Wires. We recommend using free standing towers such as lattice towers or monopole structures.

   c. Lighting System. Lights are a primary source of bird aggregation around towers, thus minimizing all light is recommended, including:

[12] USFWS identifies the peak avian nesting season as April 15 through July 15 and recommends clearing activities be performed before this period in order to comply with the Migratory Bird Treaty Act, personal communication with Maria Tur, USFWS New England Field Office, February 27, 2014.

i. No tower lighting is the preferred option if Federal Aviation Administration (FAA) regulations and lighting standards (FAA 2015, Patterson 2012) permit.

ii. If taller (> 199 ft. 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.

iii. Security lighting for on-ground facilities, equipment, and infrastructure should be motionor heat-sensitive, down-shielded, and of a minimum intensity to reduce nighttime bird attraction and eliminate constant nighttime illumination while still allowing safe nighttime access to the site.

The proposed Facility would consist of a 150-foot tall monopole structure which requires neither guy wires nor lighting and is therefore consistent with USFWS' environmentally preferred "gold standard". 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.

OPERATION AND MAINTENANCE OF ALL TOWERS

1. Existing Tower Lighting. We recommend that towers be unlit, when allowed by FAA regulations.

The proposed Facility would consist of a 150-foot tall monopole which does not require aviation lighting.

2. Infrastructure Lighting. We recommend that existing infrastructure be unlit. If associated buildings require security or operational lighting, minimize light trespass using motion sensors and downshielding with minimum intensity light.

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.

3. *Vegetation Management. When management of facility infrastructure is required:*

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.

To the extent feasible, Cellco would schedule these activities outside the peak breeding season.

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

i. Surveys should be conducted no more than five days prior to the scheduled activity to ensure recently constructed nests are identified;

ii. Timing and dimensions of the area to be surveyed vary and will depend on the nature of the project, location, and expected level of vegetation disturbance; and

iii. If active nests are identified within or in the vicinity of the project site, avoid the site until nestlings have fledged or the nest fails. If the activity must occur, establish a buffer zone around the nest and no activities will occur within that zone until nestlings have fledged.

If construction activities should occur during the peak nesting period of April 15 through July 15, efforts would be taken to complete tree clearing work prior to April 15th; 2) or, if tree clearing has

not been completed by April 15th, an avian survey may be conducted to determine if breeding birds would be disturbed; and 3) If the avian survey concludes that breeding birds would be disturbed, tree clearing activities may be restricted from the April 15 through July 15 peak nesting period (or a modified time frame based on the specific findings of the survey).

4. *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. Schedule construction and maintenance activities around the nesting and activity schedule of protected birds. Minimize excess wires and securely attach wires to the tower structure to reduce the likelihood of birds becoming entangled on the tower. Consider installing a bird nest exclusion device on the towers where birds frequently nest.*

   After construction, should birds nest on the proposed Facility in the future, Cellco and its leases would follow these recommendations to protect migratory birds.

6. *Tower Access*: *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.*

   With prior written notification to and approval by Cellco, USFWS research personnel would be allowed access to the proposed Facility to conduct evaluations.

DECOMMISSIONING

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

   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.

Summary and Conclusions

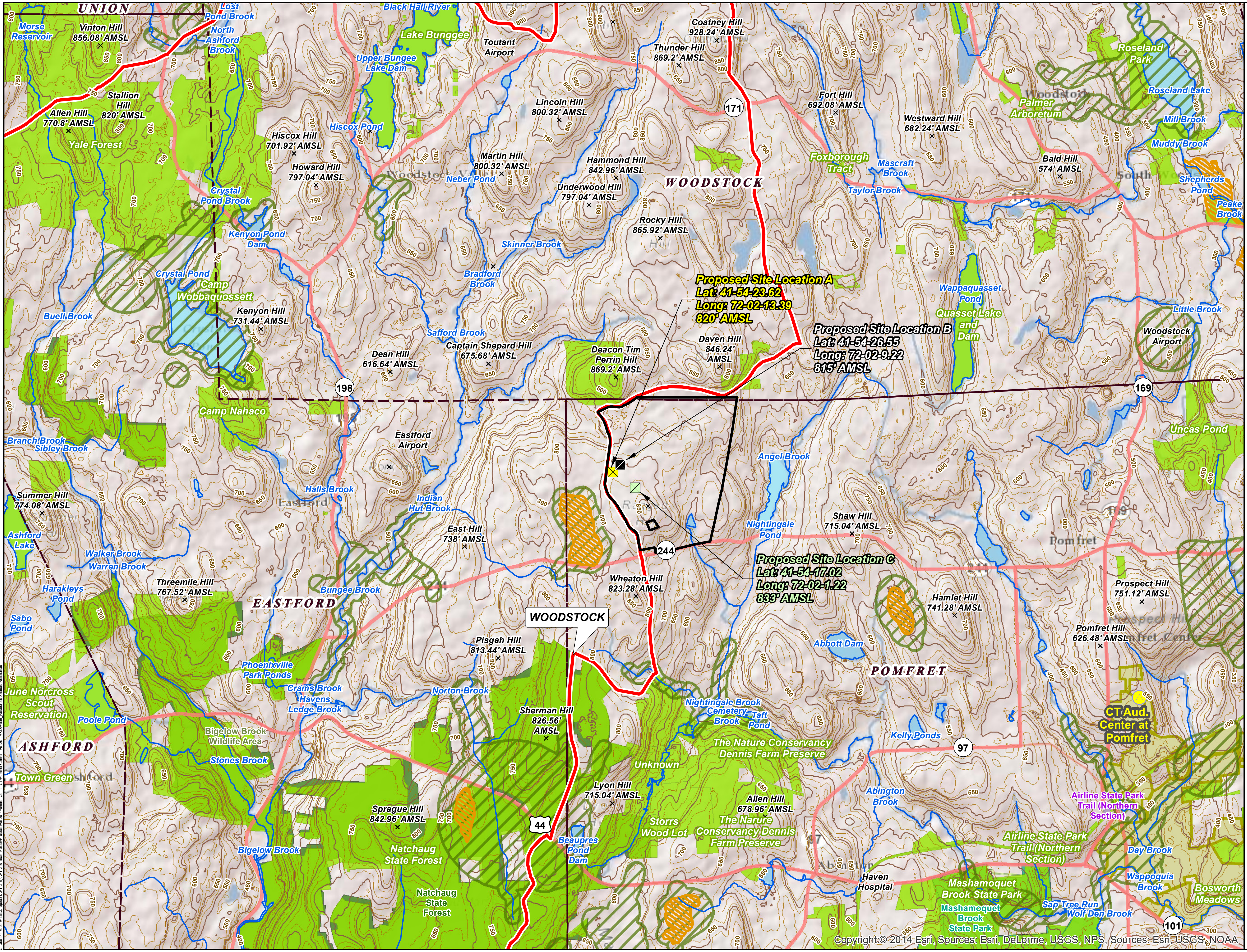
Based on the results of this desk-top evaluation, no migratory bird species are anticipated to be impacted by Cellco's proposed development. The proposed Facility is not proximate to an Important Bird Area and would comply with the USFWS guidelines for minimizing the potential impacts to bird species.

Figures

- Avian Resources Map
- Connecticut Waterfowl Focus Areas Map

Avian Resources Map

Proposed Wireless Telecommunications Facility
Pomfret Center CT
72 Ragged Hill Road
Pomfret Center, Connecticut



Legend

- Site Location A
- Site Location B
- Site Location C
- Subject Property
- Bald Eagle Site*
- Hawk Watch Site*
- Important Bird Site
- Important Bird Area
- Bald Eagle Survey Route*
- Breeding Bird Survey Route
- Natural Diversity Database (CTDEEP, 12/2016)
- Critical Habitat (CTDEEP, 07/2009)
- Migratory Waterfowl (CTDEEP, 1999)*
- Protected Open Space (CTDEEP, 2011)
- 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
- State Boundary

**None within mapped extents*

Avian Source Information:
***Bald Eagle Sites:** U.S. Geological Survey, National Biological Information Infrastr, 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, Audbon Connecticut 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/mld/bbsrtsl.html*

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

Map Date: May 2018

0.5 0.25 0 0.5 Miles

ALL-POINTS TECHNOLOGY CORPORATION

verizon

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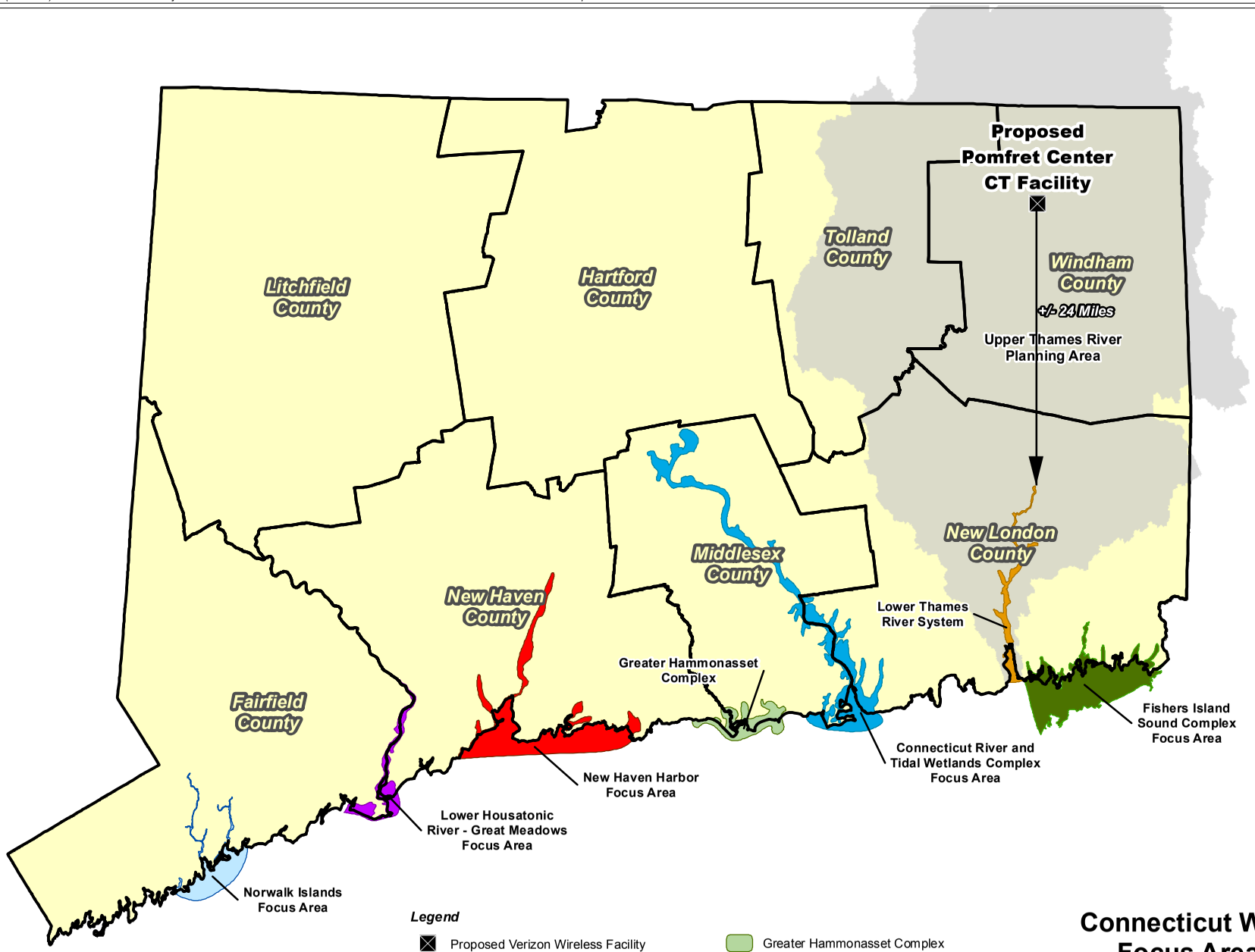

Legend

- Proposed Verizon Wireless 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
- Lower Thames River System
- New Haven Harbor
- Norwalk Islands

Connecticut Waterfowl Focus Areas Map

Proposed Wireless
Telecommunications Facility
Pomfret Center CT
72 Ragged Hill Road
Pomfret Center, Connecticut

N W E S

10 5 0 10 Miles

Waterfowl Data Source: Atlantic Coast Joint Venture Partnership
Map Date: April 2018

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