DOCKET NO. 440 – New Cingular Wireless PCS, LLC (AT&T) application for a Certificate of Environmental Compatibility and Public Need for the construction, maintenance, and operation of a telecommunications facility located at 522 Colebrook Road, Colebrook, Connecticut.	}	Connecticut Siting Council

February 6, 2014

Opinion

On August 14, 2013, New Cingular Wireless PCS LLC (AT&T) applied to the Connecticut Siting Council (Council) for a Certificate of Environmental Compatibility and Public Need (Certificate) for the construction, maintenance and operation of a wireless telecommunications facility located at 522 Colebrook Road in Colebrook, Connecticut. AT&T's objective for this facility would be to provide reliable wireless telecommunications services along Routes 182, 182A, and 183 and Smith Hill Road and surrounding areas in Colebrook. The Town of Colebrook (Town) participated as a Party in this proceeding.

AT&T proposes to construct a 120-foot monopole on a 73.1-acre parcel with frontage along Smith Hill Road. The tower site would be located in the eastern portion of the parcel. Land use surrounding the proposed site includes wooded residential parcels to the north and south and agricultural fields to the southeast and west.

The nearest property line to the proposed tower site is approximately 132 feet to the south. Thus, the tower setback radius would remain within the property boundaries. The nearest off-parcel residence is 1,051 feet to the northeast of the proposed tower. There are no schools or licensed day-care facilities within 250 feet of the tower. The nearest school is the Colebrook Consolidated School (CCS), located approximately 0.25 miles to the north of the proposed tower site. The nearest commercial day care center is Colebrook Child Care, located approximately 2.44 miles southeast of the proposed facility.

AT&T proposes to install 12 panel antennas on a low-profile antenna platform at the 117-foot level of the tower. Additional space for tower sharing would be available for three other telecommunication providers. In addition, the tower base would be designed so that the tower could be expanded by twenty feet. To date, no other wireless carrier has expressed an interest in co-locating on the proposed tower, nor has the Town expressed such an interest.

AT&T proposes to operate in the 850 MHz (cellular) and 1900 MHz (PCS) frequency bands at first, later supplying 700 MHz (LTE) service. Currently, AT&T does not have reliable coverage to the proposed service area at any of its frequencies. It has coverage gaps totaling 9.44 miles on the following primary roads: Route 44, Beech Hill Road, Phelps Flat Road, Smith Hill Road, Route 183, and Stillman Hill Road. The proposed facility would provide coverage to approximately 7.29 miles, or more than three-quarters of the gaps. On secondary roads, current gaps total 21.2 miles. The proposed facility would provide about 14.1 miles of coverage to these roads, covering about two-thirds of the gaps. In total, the proposed site would provide AT&T with 7.7 square miles of in-building and 9.3 square miles of in-vehicle coverage. This includes the Town Hall area and the CCS.

The Council recognizes that AT&T has searched extensively for sites to provide coverage in this area of Colebrook. AT&T is already co-located on the four existing towers located within a four-mile radius of the center of search ring. AT&T also investigated 19 possible new sites, but

rejected these either because the property owner was not interested in leasing space or because coverage from the site would not meet AT&T objectives. Finally, repeaters, microcell transmitters, distributed antenna systems, and other types of transmitting technologies would not be sufficient to provide service to AT&T's target coverage area.

Based on an examination of AT&T's coverage objectives, the extent of its existing gaps, its previous site search encompassing numerous locations in the vicinity of Colebrook, and its predicted coverage from the proposed location, the Council finds a need for the 120-foot tower at this site.

AT&T would establish a 75-foot by 75-foot fenced compound at the base of the tower. A 50 kW emergency diesel generator would be located within the compound, capable of supplying a 48-hour run time before refueling is necessary. A battery backup system would provide seamless uninterrupted power to prevent a re-boot condition during the generator startup delay period, and it could also provide four to six hours of backup power in the event that the generator fails to start.

The proposed backup generator and battery backup system would provide backup power for AT&T only. A shared generator for up to four carriers could be as large as 200 kW, or about 50 kW per carrier. Even though no other carriers currently plan to co-locate on this facility, the Council believes that the installation of a shared generator would be prudent planning and would have several benefits. First, a shared large generator would emit less noise than four separate small ones. Second, one shared backup generator would provide longer run-time for all potential carriers, especially those that would normally utilize battery backup only; thus, the system would be more reliable. For example, if AT&T were limited to its battery backup only, its run-time would be limited to four-to-six hours, which would likely be insufficient in a major storm or any other significant power outage. Third, a shared generator would eliminate the need for some carriers to acquire temporary portable generators during an outage. The availability of such portable generators could be limited due to high demand during an outage.

In consideration of these benefits, the Council will require AT&T, in its Development and Management Plan (D&M), to reserve space in the fenced compound for a replacement generator that would serve future carriers as well.

Turning now to environmental concerns, the Council notes that the subject property contains five identified wetlands. Wetland 1 is a relatively small, isolated hillside seep depressional wetland system formed in dense glacial till. Portions of Wetland 1 extend off of the subject property to the south across an existing stone wall. This feature is located approximately 475 feet from the proposed facility. Wetland 2 is an isolated depressional wetland system formed in bedrock controlled soils. It is located approximately 175 feet from the proposed facility. This wetland may seasonally pond water that could support vernal pool obligate species. Wetland 3 begins near the southeast property corner, paralleling the eastern property boundary along Smith Hill Road, as a broad depressional wetland seep system. The southern portion of Wetland 3 is characterized by eastern hemlock wetland system topography that potentially supports a cryptic vernal pool. Wetland 4 is a very small, isolated depressional wetland feature located mid-slope, formed in dense glacial till. It is the closest to the proposed facility, about 50 feet away. Evidence in the form of relic charcoal fragments found in multiple soil test pits indicate that the grades in this area may have been altered by the creation of the charcoal pit. Wetland 5 is a relatively small, hillside seep wetland system formed in dense glacial till. Wetland 5 generally begins as a seasonal seep breakout as it flows to the north. This feature is located approximately 350 feet from the proposed facility.

The majority of the wetlands would be considered United States Army Corps of Engineers (ACOE) jurisdictional, with the possible exception of Wetland 4. AT&T has submitted a Category I determination request under the Connecticut General Permit to ACOE. It is currently under review by ACOE.

AT&T has a Wetland and Vernal Pool Protective Measures plan that includes but is not limited to seasonal monitoring for amphibian and reptile species should construction occur during the spring breeding period. The Council expects that this protective plan, along with other measures to prevent any adverse impacts to wetlands, will be presented and reviewed in detail during the D&M phase of AT&T's proposal, to the extent applicable.

Given the number of wetlands in the vicinity of the proposed tower, the access drive presents a challenge. The access originally proposed (Access 1), would be provided from Smith Hill Road over a new, approximately 1,337-foot long and 12-foot wide gravel drive, with grades varying from two to 18 percent. Access 1 would result in 710 square feet of direct wetland impacts. AT&T initially proposed one alternate (Access 2) that would slightly diverge from Access 1 to avoid the 100-foot vernal pool envelope surrounding Wetland 2, but later found that the entire access road could be shifted to the west to avoid crossing any wetlands: this second alternate was Access 3. Specifically, Access 3 shifts to the west to avoid crossing Wetland 3; it also increases the buffer from Wetland 2; and it is approximately 250 feet shorter than Access 1, with comparable grades and no increase in tree-clearing. Of the three access drive options, the Council finds Access 3 to be the superior choice. Because it avoids adverse impacts to wetlands without environmental penalty, Access 3 is a win-win.

The proposed project would not impact any extant populations of Federal or State Endangered, Threatened or Special Concern Species that occur in the vicinity of the project. It would also comply with the U.S. Fish and Wildlife Services guidelines for minimizing the potential impact to birds. The proposed tower site is not proximate to an Important Bird Area.

Year-round visibility of the tower would be limited to a section of a few hundred feet along the crest of Stillman Hill Road, approximately 0.8 miles southwest of the proposed tower location. Two residences are within this area. One or two residential properties may have seasonal views of the proposed tower: these would be within the immediate vicinity of the property or along a short section of Route 183 north of the Town center, adjacent to the Colebrook Center Cemetery.

Views of the tower from Colebrook Consolidated School are not expected. Views of the tower from the Colebrook Center Historic District are expected, but they would be limited to views through existing trees approximately 0.75 miles away. In addition, the State Historic Preservation Office has determined that the proposed facility would not have an adverse impact upon cultural resources, with the following conditions: that the tower and equipment shelter within the compound shall be designed to be as unobtrusive as possible; and that the tower and equipment shall be removed when it is no longer in use.

While stealth tower options are not expected to make a significant difference in visual impact at this particular location, the Council finds that a tree tower, or monopine, would provide some improvement by blending in with intervening trees from certain viewpoints. The Town strongly favors a tree tower. Tree towers can utilize antennas mounted on platforms, and thus avoid the twenty feet of additional height that would be required by a stealth tower with flush-mounted antennas. Thus, the Council will order a tree tower or monopine. In keeping with the originally proposed height, the minimum required for coverage, the monopole itself, or "tree trunk", shall

not exceed 120 feet above ground level. The Council will require a yield point to ensure that, should the tower be extended in the future, the tower setback radius would remain within the subject property boundaries. The color or finish of the monopole will be addressed in the D&M Plan. The Council's Decision and Order will address the removal of the tower and equipment that is no longer in use.

According to a methodology prescribed by the FCC Office of Engineering and Technology Bulletin No. 65E, Edition 97-01 (August 1997), the worst-case combined radio frequency power density levels of the antennas proposed to be installed on the tower have been calculated by Council staff to amount to 10.9% of the FCC's General Public/Uncontrolled Maximum Permissible Exposure, as measured at the base of the tower. This percentage is well below federal and state standards established for the frequencies used by wireless companies. If federal or state standards change, the Council will require that the tower be brought into compliance with such standards. The Council will require that the power densities be recalculated in the event other carriers add antennas to the tower. The Telecommunications Act of 1996 prohibits any state or local agency from regulating telecommunications towers on the basis of the environmental effects of radio frequency emissions to the extent that such towers and equipment comply with FCC's regulations concerning such emissions. As to potential harm to wildlife from radio emission, like the matter of potential health to humans, is a matter of federal jurisdiction. Instead the Council's role is to ensure that the tower meets federal permissible exposure limits.

Based on the record in this proceeding, the Council finds that the effects associated with the construction, maintenance, and operation of a telecommunications facility at the proposed site, including effects on the natural environment; ecological integrity and balance; public health and safety; scenic, historic, and recreational values; forests and parks; air and water purity; and fish and wildlife are not disproportionate either alone or cumulatively with other effects when compared to need, are not in conflict with policies of the State concerning such effects, and are not sufficient reason to deny this application. Therefore, the Council will issue a Certificate for the construction, maintenance, and operation of a 120-foot monopine telecommunications facility at 522 Colebrook Road, Colebrook, Connecticut