DOCKET NO. 449 – Message Center Management and New Cingular Wireless PCS, LLC application for a Certificate of Environmental Compatibility and Public Need for the construction, maintenance, and operation of a telecommunications facility located at Redding Tax Assessor Map 23, Lot 72, Redding Ridge Fire Department, 186 Black Rock Turnpike, Redding, Connecticut.	}	Connecticut
	}	Siting
	}	Council
		October 30, 2014

Opinion

On May 19, 2014, Message Center Management, Inc. (MCM) and New Cingular Wireless PCS, LLC (AT&T) collectively referred to as the Applicant (Applicant) applied to the Connecticut Siting Council for a Certificate of Environmental Compatibility and Public Need (Certificate) for the construction, maintenance, and operation of a wireless telecommunications facility to be located in the Town of Redding, Connecticut. The Applicant is seeking to replace an existing lattice tower with a new, taller monopole tower on a 0.62-acre parcel of property owned by the Redding Ridge Fire District 1 (RRFD) and used for a fire station. The objective in siting a facility at this location is to provide wireless services in the vicinity of Black Rock Turnpike and to other local roads, schools, and residences in the surrounding Redding Ridge area. Cellco Partnership d/b/a Verizon Wireless participated as an intervenor in this proceeding to demonstrate its need to co-locate on this facility.

The existing tower is an approximately 80-foot self-supporting lattice tower that currently supports RRFD antennas. Although Sprint previously received Council approval on October 16, 2007, in Docket No. 334, to replace the existing 80-foot lattice tower with a 121.5-foot monopole, the monopole was never constructed, and Sprint's Certificate expired. Thus, the RRFD's lattice tower currently remains in use for RRFD's antennas only.

AT&T and Cellco presently have limited or no coverage in the Redding Ridge area. To remedy this deficiency, the Applicant proposes to replace the existing lattice tower with a new, 150-foot monopole tower within a 47-foot by 48-foot equipment compound. The tower and compound would be located behind the existing RRFD building. The new tower would be located approximately 24 feet to the northeast of the existing tower. The RRFD's approximately 12-foot tall antennas would be re-located to the approximately 86-foot centerline height of the proposed tower and the RRFD's yagi antenna would be re-located to the approximately 45-foot level of the tower. Once the RRFD's equipment began operating on the new tower, the old tower would be taken down and removed.

AT&T proposes to install 12 panel antennas on a low-profile platform at the 150-foot level of the new tower. The total height of the facility with AT&T's eight-foot antennas would be 154 feet above ground level (agl). Cellco proposes to install 12 panel antennas on a low-profile platform at the next available height of 140-foot agl. Inside the fenced compound, AT&T and Cellco would each install their 12-foot by 20-foot equipment shelters. Each shelter would have two wall-mounted air conditioning units (A/C units). No landscaping is proposed. No trees would be removed. The Applicant would utilize existing access to the rear of the fire department building to reach the tower.

Utilities are proposed to be installed underground to the site from an existing utility pole (to be replaced) located in the southwest portion of the subject property. Alternatively, the Applicant could eliminate the pole replacement and connect to an existing pole on the opposite (i.e. west) side of Black Rock Turnpike, trenching the utility service from there under Black Rock Turnpike to the site. The Council prefers the latter option as it improves aesthetics and results in less visual "clutter" associated with overhead wires. Thus, the Council recommends that the Applicant consult with the

utilities regarding an underground utility crossing of Black Rock Turnpike. The details of this new utility route should be included in the Development and Management Plan (D&M Plan).

AT&T and Cellco each propose a battery backup system with approximately six and eight hours of run-time each, respectively, to deal with an outage of commercial power. In addition, the Applicant has been having discussions with the RRFD regarding a permanent shared generator to maintain continuity of wireless telecommunications services during an extended outage. The existing generator for the RRFD is not large enough in capacity to supply wireless carriers, and there is not enough space for each wireless carrier to install a permanent generator. Thus, the most current plan is to install a shared propane backup generator for wireless carriers AT&T and Cellco. To fuel it, the Applicant may be able to tap into the existing propane tank that the RRFD currently uses for its generator. The Council will require that the fuel source and run-time, along with other details of the emergency backup generator, be included in the D&M Plan.

The proposed tower would be designed to support the antennas of a total of four wireless carriers including AT&T and Cellco. It would not be designed to be expandable beyond its proposed height of 150 feet. As proposed, the tower setback radius extends onto the Mayo property, approximately 21 feet to the east. The tower would be designed with a yield point at approximately 129 feet AGL to ensure that the tower setback radius remains within the boundaries of the subject property. Accordingly, the Council will order such yield point in the tower design.

The proposed 150-foot tower would be visible year-round from approximately 38 acres within a two-mile radius of the site. When the leaves are off the trees, the tower would be seasonally visible from approximately 264 acres within a two-mile radius of the site. Approximately five or six homes would have year-round views of the proposed (150-foot) tower. The tower would be seasonally visible from approximately eight to ten homes – all within a half-mile or less of the subject property.

At a tower height of 120 feet, the tower would be visible year-round from approximately 6 acres within a two-mile radius of the site (refer to Figure 26). When the leaves are off the trees, the tower would be seasonally visible from approximately 51 acres within a two-mile radius of the site.

The largest wetland nearby the proposed tower site—Wetland 1—is a hillside seep forested wetland system associated with an interior seasonal intermittent watercourse. Wetland 1 is located within the Hemlock Reservoir watershed, an active source of public drinking water controlled by the Aquarion Water Company. The eastern side of the proposed facility compound is located approximately 53 feet from the nearest edge of Wetland 1.

MCM's environmental consultant has provided a Wetland Protection Program (WPP) that would avoid degradation of the nearby wetland system or water quality that could affect the public water supply watershed during construction. The protective measures in the plan also satisfy the recommendations from the Drinking Water Section of the Connecticut Department of Public Health. Given the WPP, as well as erosion and sedimentation controls designed, installed, and maintained in accordance with the *2002 Connecticut Guidelines for Soil Erosion and Sediment Control* (2002 E&S Guidelines), the proposed project would not result in a likely adverse impact to wetland or water resources. Accordingly, the Council will require that the WPP and erosion and sedimentation controls consistent with the 2002 E&S Guidelines be included in the D&M Plan.

Other than noise from the emergency backup generator, which is exempt from DEEP noise standards, the only noise associated with the operation of the tower would come from the air conditioning units attached to Cellco's and AT&T's equipment shelters. However, the Applicant's noise consultant has provided noise mitigation recommendations to ensure AT&T's and Cellco's air

conditioning units comply with State noise standards. The Council will require that these noise mitigation measures be included in the D&M Plan.

No negative impacts to Federal or State Endangered, Threatened, or Special Concern species are expected to result from the proposed project. No final SHPO determination was ever received by the Council and made part of the record in this proceeding.

The Council deems the major issue in this proceeding to be the height of the tower. Its height is driven by the needs of the carrier to be located at the top. AT&T requires a height of 150 feet to meet its needs: heights less than that would substantially compromise its coverage area. While Cellco's design minimum antenna height is 120 feet, Cellco testified that they would be willing to accept any height under AT&T because they can find no other structures in the area from which to establish coverage. The RRFD's antennas would be relocated to the proposed tower well below Cellco's antennas and thus would not affect the height of the proposed tower.

While it is the Town's preference to keep the tower height approximately the same as the previously approved 120-foot tower, the Council notes that AT&T's network needs are quite different than Sprint's needs in Docket No. 334 seven years ago. There are very significant tradeoffs in AT&T's coverage from a 120-foot tower versus the proposed 150-foot tower. For example, AT&T's main road coverage, at 700 MHz, would decline from 3.55 miles with a 150-foot tower to 2.12 miles at 120 feet – an approximately 40 percent reduction. Similarly, AT&T's 850 MHz main road coverage would decline from 5.04 miles to 2.83 miles – a nearly 44 percent reduction. AT&T's 1900 MHz main road coverage would decline from 2.61 miles to 1.96 miles with a 120-foot tower – an approximately 25 percent reduction. Significant losses of secondary road coverage would also occur from 120 feet. For example, at 850 MHz, secondary road coverage at 150 feet would be 27.39 miles. It would decline to 17.96 miles at 120 feet – a loss of over nine linear miles of secondary road coverage. Furthermore, considering the coverage losses imposed by a tower of 120 feet, AT&T and Cellco both admitted they would have to contemplate building further towers in the area. This would counteract the Council's tower sharing policy, consistent with CGS § 16-50aa, to prevent the proliferation of towers.

Finally, the Council also believes that it is prudent to maximize coverage to two State parks located to the north/northeast for public safety purposes. AT&T could provide coverage to Collis P. Huntington State Park (HSP) at any height 120 feet and up, but its coverage would be significantly better at 150 feet than at 120. A 150-foot tower would allow Cellco to co-locate at 140 feet, where it could provide better coverage to HSP and Putnam State Park than if the tower were thirty feet shorter and Cellco were co-located at 110 feet.

While a 120-foot tower would have seasonal and year-round visibility from less acreage than a 150-foot tower, most of the year-round visibility of the proposed 150-foot tower would be limited to a 1,000-foot radius of the tower location. Furthermore, the Council finds that the coverage benefits of the 150-foot tower outweigh the increase in visibility area. Thus, the Council will approve the facility at the proposed height of 150 feet.

According to a methodology prescribed by the FCC Office of Engineering and Technology Bulletin No. 65E, Edition 97-01 (August 1997), the 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 47.6% of the FCC's General Public/Uncontrolled Maximum Permissible Exposure, as measured at the base of the tower. This percentage is well below federal standards established for the frequencies used by wireless companies. If federal 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. Regarding potential harm to wildlife from radio emissions: this, like the matter of potential hazard to human health, is a matter of federal jurisdiction. 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 the 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 150-foot monopole telecommunications facility at 186 Black Rock Turnpike, Redding, Connecticut.