DOCKET NO. 462 – Cellco Partnership d/b/a Verizon Wireless application for a Certificate of Environmental Compatibility and Public Need for the construction, maintenance, and operation of a telecommunications facility located at Danbury Tax Assessor's Map L16, Lot 5, 15 Great Pasture Road, Danbury, Connecticut.	}	Connecticut Siting Council

December 10, 2015

Opinion

On July 7, 2015, Cellco Partnership d/b/a Verizon Wireless (Cellco) applied to the Connecticut Siting Council (Council) for a Certificate of Environmental Compatibility and Public Need (Certificate) for the construction, maintenance, and operation of wireless telecommunications facility to be located in the City of Danbury, Connecticut. The purpose of the proposed facility is to increase network capacity and provide reliable wireless service to existing gaps in portions of southeast Danbury and northwest Bethel, particularly along portions of Routes 53 and 302 in the area.

The United States Congress recognized a nationwide need for high quality wireless services in part through the adoption of the Federal Telecommunications Act of 1996 and directed the Federal Communications Commission (FCC) to establish a market structure for system development, and develop technical standards for network operations. Connecticut State law directs the Council to balance the need for development of proposed wireless telecommunications facilities with the need to protect the environment, including public health and safety.

Cellco is currently located on five existing telecommunications facilities within a two-mile radius of the proposed site. However, there are no other existing towers or sufficiently tall structures available within Cellco's search area. Thus, Cellco investigated available vacant land sites for a new tower. Of eight sites reviewed by Cellco, five were rejected because the property owner was not interested in leasing space for a tower, two were rejected because of environmental issues (e.g. wetlands or flood zones), and one was selected – the proposed site at 15 Great Pasture Road.

Cellco proposes to construct a 120-foot monopole and associated equipment compound at 15 Great Pasture Road in the western portion of this 14.0-acre property owned by Eppoliti Industrial Realty Inc. The subject property is zoned Industrial (IL-40) and currently used for light industrial purposes. Cellco will install 12 panel antennas and nine remote radio heads on a low-profile platform at a centerline height of 120 feet above ground level (agl). Cellco will install its equipment within a 12-foot by 26-foot equipment shelter located within the approximately 50-foot by 50-foot fenced compound.

During the proceeding, the owner of a property abutting the proposed site to the northeast (known as the Putnam Property) offered the property as an alternative site for tower development. While Cellco did not investigate environmental conditions on such property, the Council notes that the Putnam Property is not part of the Application currently before the Council in the instant docket. While it may be possible that a tower on such property would provide comparable RF coverage for Cellco, the Council notes that the Putnam Property is significantly more constrained for space given its total size of 0.45 acres versus the proposed property at 14.0 acres. Also, property zoned industrial is preferred to property zoned residential.

Cellco's radio frequency propagation modeling demonstrated a need to provide wireless service to several existing service gaps in the area and has presented a need to offload capacity from adjacent sites created by high volumes of customer data traffic. At the proposed site, Cellco would deploy 700

MHz (long-term evolution - LTE) and 2100 MHz (advanced wireless service - AWS) services and reserve the 1900MHz for future capacity demand. Cellco has no plans to deploy the 800MHz at this time. Cellco would need an antenna height of 120 feet at the proposed site to meet wireless service objectives.

The tower will be designed to support the antennas of two additional carriers (and municipal emergency services antennas) and a 20-foot extension if additional tower height is needed in this location for additional carriers. However, no other wireless carriers or municipalities have expressed an interest in co-locating on the tower at this time. The tower setback radius remains within the boundaries of the subject property. Thus, no design yield point is necessary.

Cellco will utilize the existing paved access drive. No improvements to the existing access drive are expected to be required. Utilities will be installed underground from the tower site to Great Pasture Road, following the existing access drive. Cellco plans to connect to pole #1979 on the same side of Great Pasture Road as the subject property. However, this is a preliminary design and subject to Eversource's final design determination. If the utilities connect to a pole on the opposite side of Great Pasture Road as the subject property, the Council recommends trenching across Great Pasture Road to reduce the visual "clutter" of an overhead crossing of Great Pasture Road. The final details of the utility connections will be included in the Development and Management Plan (D&M Plan).

In the event an outage of commercial power occurs, Cellco will rely on a propane-fueled generator as opposed to an originally-proposed natural gas-fueled generator for backup power. The generator will have an estimated seven days of run time before requiring refueling. The final details of the backup generator, its fuel tank and run time will be included in the D&M Plan. The Council believes that the propane generator will require significantly less disturbance to the subject property than a natural gas-fueled generator because natural gas utility trenching to the north and east to reach an existing natural gas meter site will no longer be necessary. Cellco will also have a battery backup system to avoid a "reboot" condition during the generator start-up delay period. The battery backup system alone could provide about four to eight hours of backup power.

For the compound fence, Cellco originally proposed 1 ¼-inch chain link mesh with privacy slats. However, subsequently, Cellco determined that privacy slats are not available for the 1 ¼-inch mesh size. Thus, Cellco offers two options: 2-inch chain link mesh size with 1 ¼-inch privacy slats (which also acts as an anti-climbing measure) or 1 ¼-inch chain link mesh size with a privacy fabric mesh installed on the back side of the fence. The Council has no preference regarding these two options because both configurations offer a combination of privacy screening and anti-climbing features. Cellco will include the details of one of these fence design configurations in the D&M Plan.

There are no Connecticut blue-blaze or other designated hiking trails located within two miles of the proposed site. In addition, there are no state or locally-designated scenic roads located within two miles of the proposed site.

The tower will be visible year-round from approximately 38 acres within the two-mile visibility study area. Approximately 25 residential properties will have such year-round views of the upper portions of the proposed tower. The tower will be seasonally visible from approximately 255 acres with such study area. This includes up to 12 residential properties that will have views of at least a portion of the proposed tower through intervening trees. However, the Council notes that beyond a 0.25-mile radius from the subject property, the views of such tower become more sporadic as intervening vegetation and existing infrastructure serve to obstruct large portions of the facility. No landscaping is proposed because any views of the compound and lower portions of the monopole will be limited to locations on the subject property.

In its written comments, the City of Danbury requested that the tower be painted brown. However, in this proceeding, Cellco noted that a painted tower will have continuous maintenance and appearance issues. The Council concurs and believes that the galvanized gray color will not have the maintenance issues of a painted tower, and it will weather to a dull-gray. Thus, the Council will require a galvanized monopole design to be included in the D&M Plan.

Two State-listed Species of Special Concern, the eastern box turtle and the wood turtle, may occur in the vicinity of the proposed site. Cellco will implement an Eastern Box Turtle and Wood Turtle Protection Program (EBTWTPP). The EBTWTPP consists of several components: isolation of the project perimeter; periodic inspection and maintenance of isolation structures; education of all contractors and sub-contractors prior to the initiation of work on the site; protective measures; and reporting.

Two federally-listed Threatened Species, the bog turtle and the northern long-eared bat are documented in the vicinity of the subject property. No impact on the northern long-eared bat is expected because no trees will be removed. Furthermore, the nearest bat hibernaculum is located over 10 miles from the proposed tower site. The EBTWTPP will be equally protective of any terrestrial use or activity of the bog turtle. Thus, the proposed project is not expected to result in adverse impacts to the bog turtle. The final details of the EBTWTPP will be included in the D&M Plan.

The proposed facility is not located near an Important Bird Area, as designated by the National Audubon Society. In addition, the proposed facility will comply with the U.S. Fish and Wildlife Service guidelines for minimizing the potential for telecommunications towers to impact bird species.

Wetland 1 is located approximately 80 feet to the south and west of the proposed tower compound. To protect such resource, the proposed project will comply with the *2002 Connecticut Guidelines for Soil Erosion and Sedimentation Control*. The final details of the erosion and sedimentation controls and wetland protection measures will be included in the D&M Plan.

The proposed facility will have no effect on historic properties.

There is an existing DEEP dig-restricted area on a portion of the subject property, or what is known as an environmental land-use restriction that resulted from some historic releases in contamination that were identified approximately 10 to 15 years ago. This restricted area (approximately ten feet deep) encompasses an area beneath the southwest corner of the existing industrial building on the subject property and extends approximately 25 feet beyond the building to the west and the south. Cellco will not be performing any construction within this restricted area. Furthermore, as an additional precaution, the final utility trenching details including its depth relative to the depth of the DEEP dig-restricted area will be included in the D&M Plan.

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 25.4% of the FCC's General Public/Uncontrolled Maximum Permissible Exposure, as measured at the base of the tower. This is conservatively based on all antennas of a given sector pointing down to the ground and emitting maximum power. 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 emission; 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, operation, and maintenance 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 120-foot galvanized steel monopole telecommunications facility at the proposed site located at 15 Great Pasture Road, Danbury, Connecticut.