STATE OF CONNECTICUT CONNECTICUT SITING COUNCIL

IN RE:

APPLICATION OF CELLCO PARTNERSHIP

D/B/A VERIZON WIRELESS FOR A

CERTIFICATE OF ENVIRONMENTAL

COMPATIBILITY AND PUBLIC NEED FOR

THE CONSTRUCTION, MAINTENANCE

AND OPERATION OF A WIRELESS

TELECOMMUNICATIONS FACILITY OFF

CHEDMAN BOAD WOODSTOCK

SHERMAN ROAD, WOODSTOCK,

CONNECTICUT

DOCKET NO. 369

DECEMBER 23, 2008

RESPONSES OF CELLCO PARTNERSHIP D/B/A VERIZON WIRELESS TO CONNECTICUT SITING COUNCIL PRE-HEARING INTERROGATORIES, SET ONE

On December 8, 2008, the Connecticut Siting Council ("Council") issued Pre-Hearing Interrogatories to the Applicant, Cellco Partnership d/b/a Verizon Wireless ("Cellco"), relating to the above-captioned docket. Below are Cellco's responses.

Question No. 1

When was the search ring first initiated for a tower in this area?

Response

The Woodstock NW search ring was initiated in September 2006.

Question No. 2

Is the proposed tower site within 2,500 feet of the Town of Union?

Response

Yes.

Question No. 3

Describe the land uses surrounding the proposed tower site.

HART1-1516312-1

Response

Generally, the area can be described as a low density residential area. The residential uses are located to the north along Route 197 and east along Sherman Road of the landlord's 39-acre property. Portions of the Nipmuck State Forest abut the landlord's property to the west and south.

Question No. 4

Has Cellco considered repeaters and/or microcells to serve the proposed coverage area?

Were either found to be viable alternatives to a proposed tower?

Response

No. The area that Cellco intends to cover from the Woodstock NW Facility, including significant portions of Routes198, 197 and 171, is too large to reliably serve with microcells or repeaters, especially at PCS frequencies. Neither is a viable alternative to the proposed Woodstock NW facility.

Question No. 5

Would the backup generator's diesel fuel tank be located inside the equipment shelter?

Describe containment of fuel and/or oil in the event of a spill.

Response

Yes. The generator unit maintains a 275 gallon "belly" tank as an integral part of the generator unit. The generator and fuel tank will be maintained in a segregated 10' x 12' generator room within Cellco's 12' x 30' equipment shelter. The fuel tank is double-walled and maintains leak detection alarms. As a third level of spill containment, the floor of the generator room is depressed several inches below the threshold of the entrance doorway creating a bowl-like effect. The generator room floor as designed is capable of containing 120% of the volume of

all generator fluids (fuel, lubricants, etc.) in the unlikely event of a complete generator failure.

Leak detection alarms are also built into the floor of the generator room.

Question No. 6

Has Cellco considered using a fuel cell as a backup power source for the proposed facility? Explain.

Response

No. Backup power at the Woodstock NW Facility would be provided by a series of batteries and a diesel-fueled backup generator installed inside the equipment shelter. These back-up power systems have proven to be a reliable and cost effective means of providing backup power to Cellco's telecommunication facilities across Connecticut. The use of fuel cells for backup power remains under review and consideration by Cellco, however, the deployment of such systems has not yet been authorized for this or any cell site in Connecticut.

Question No. 7

Provide the distance and direction from the proposed site to the existing sites that the proposed tower would interact with.

Response

Union West -3.2 miles northwest of the proposed facility.

Woodstock North -2.5 miles north of the proposed facility.

Coatney Hill Road – 4.1 miles east of the proposed facility.

Question No. 8

Would flush-mounted antennas or antennas attached to the tower via T-arms provide the required coverage? Would either configuration result in reduced coverage and/or necessitate greater antenna height?

Response

To be clear, when we discuss the use of "flush-mounts" or "T-arms" we are simply describing a means of physically attaching the antennas to a tower at a particular height. Similar to the low-profile antenna platform described in this application, the use of T-arms would allow for the installation of Cellco's standard full-array of twelve to fifteen antennas, all at the same height on the tower. Cellco would prefer the use of a low profile platform simply because such an installation allows for easier maintenance of the antennas. The use of T-arms would also be acceptable.

Flush-mounted antennas refers to antenna that are attached directly to the monopole tower. Due to the relatively small diameter of the structure, Cellco could only install three flush-mounted antennas at any particular height. As Cellco has discussed in prior dockets, the use of flush-mount antennas result in a coverage loss of 3-4 dB from a particular facility and the shrinking of that facility's coverage footprint. As the coverage footprint shrinks, gaps open along heavily-traveled roadways in the area around the tower. Cellco's ability to provide reliable service to a particular target area becomes much more of a challenge. To compensate for this loss, Cellco would need to increase overall centerline height of its antennas and would need to utilize three levels on the tower, one each for its 1700 MHz, 850 MHz and 700 MHz systems, thereby eliminating tower sharing opportunities.

Question No. 9

Provide the number of watts effective radiated power (ERP) and the transmit frequencies for Cellco's proposed cellular and PCS service at the proposed facility.

Response

| Alpha Sector – 140 Ft. | Beta Sector – 140 Ft. | Gamma Sector – 140 Ft. |
|--------------------------------------|--------------------------------|--------------------------------------|
| Antenna Type: | Antenna Type: | Antenna Type: |
| LPA-80080/6CF (cellular) | LPA-80080/6CF (cellular) | LPA-80080/6CF (cellular) |
| LPA-185080/12CF (PCS) | LPA-185080/12CF (PCS) | LPA-185080/12CF (PCS) |
| Frequency: | Frequency: | Frequency: |
| 850 MHz (cellular) | 850 MHz (cellular) | 850 MHz (cellular) |
| 1970-1975 MHz and | 1970-1975 MHz and | 1970-1975 MHz and |
| 1975-1980 MHz (PCS) | 1975-1980 MHz (PCS) | 1975-1980 MHz (PCS) |
| No. Channels: 9 Cellular 6 PCS | No. Channels: 9 Cellular 6 PCS | No. Channels: 9 Cellular 6 PCS |
| ERP/Channel: | ERP/Channel: | ERP/Channel: |
| 365 W Max (Cellular) | 365 W Max (Cellular) | 365 W Max (Cellular) |
| 495 W Max (PCS) | 495 W Max (PCS) | 495 W Max (PCS) |

Question No. 10

Would the proposed facility be E-911 compliant? Explain.

Response

Yes. To be E-911 compliant, the Cellco facility must be equipped to provide services generally described in the Wireless Communications and Public Safety Act of 1999 and the Enhanced 911 Act in 2004. These services are designed to promote citizen activated emergency response capabilities; upgrades to Public Safety Answering Point ("PSAP") capabilities; and related functions in receiving Enhanced-911 ("E-911") calls.

The FCC has divided the implementation of the E-911 program into two parts. Under Phase 1, carriers had to provide a local PSAP with the telephone number of the originator of a

911 call and the location of the cell site or base station transmitting the call. Under Phase 2, carriers had to begin to provide PSAP's with more precise information including the latitude and longitude of the caller. The FCC requires the technology used for E-911 services to meet certain accuracy standards, the development of new technologies to support E-911 services, as well as coordination among public safety agencies, wireless carriers, technology vendors, equipment manufacturers and wireline carriers. The proposed Woodstock NW Facility will be capable of providing both Phase 1 and Phase 2 services from the time the facility is activated.

Question No. 11

Calculate the amounts of cut and fill required to develop the proposed tower site and access drive.

Response

Cut - 349 c.y.

Fill - 57 c.y.

Question No. 12

Would any construction take place within the local regulated upland review area?

Response

The Town of Woodstock Inland Wetlands and Watercourses Agency ("IWWA") regulates activities within one hundred (100) feet measured horizontally from the boundary of any wetland. Two wetland areas were identified in the southeasterly portion of the 39-acre subject parcel near Sherman Road and south of an existing gravel road on the property. Cellco will use this existing gravel road to access the Woodstock NW Facility. A portion of the existing access road was constructed within approximately 20 feet of Wetland Area 1 (See Plan Sheet C-1, Wetland Flags WF1-01 – WF1-26), located immediately west of Sherman Road, and within 50

feet of Wetland Area 2 (See Plan Sheet C1, Wetland Flags WF2-01 – WF2-10) approximately 400 feet west of Sherman Road. The Woodstock NW Facility itself is located approximately 720 feet north of the nearest wetland area (Wetland Area 2). The existing access road on the Property is well established. Cellco does not anticipate the need for any significant repairs or upgrades to the road to construct or access the facility.

If road repair or maintenance work is necessary on the existing gravel road near these wetland areas, it would, in all likelihood, occur within the 100-foot upland review and be subject to Council review. (Woodstock IWWA Regulations are pre-empted by the Council pursuant to Conn. Gen. Stat. § 16-50x). New construction activity associated with the Woodstock NW Facility including site compound improvements and a short driveway extension, would be located well outside of the locally designated upland review area. If any repair work is required on the gravel road, within 100 feet of either Wetlands 1 or 2, appropriate erosion and sedimentation control measures (e.g., silt fence; hay bales; etc.) will be installed to protect these wetland resources.

Question No. 13

Provide cellular and PCS coverage plots using the same scale provided assuming the tower is 130 feet tall (with 127 foot antenna centerline height) and 120 feet tall (with 117 feet antenna centerline height), respectively.

Response

The plots requested at attached behind <u>Tab 1</u>.

Question No. 14

List any hiking trails within a 2-mile radius of the proposed facility and comment on the expected visibility of the proposed tower from such trails.

Response

The Nipmuck Trail, part of the Blue-Blazed Hiking Trail System of eastern Connecticut, extends in a general south to north direction in the Town of Union, in the westerly portion of the Study Area, depicted on the Viewshed Map behind Tab 10 of the application. The closest portion of the trail is approximately 1.75 miles from the proposed Woodstock NW Facility. No views of the proposed tower are anticipated from any portion of the Nipmuck Trail at any time of year. Likewise, views are not anticipated, year-round or seasonally, from a series of informal trails located within portions of the Nipmuck State Forest to the north and west, and portions of the Yale Forest to the west of the Nipmuck Forest. Many of these trails are associated primarily with ponds and are located at relatively low ground elevations. Intervening topography and/or dense forest between these sites and the Woodstock NW Facility would serve to block potential lines of sight from these trails.







