

STATE OF CONNECTICUT  
CONNECTICUT SITING COUNCIL

IN RE: :  
: :  
APPLICATION OF CELLCO PARTNERSHIP : DOCKET NO. 360  
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 ON :  
PROPERTY OF THE FALLS VILLAGE :  
VOLUNTEER FIRE DEPARTMENT, INC., :  
188 ROUTE 7 SOUTH, FALLS VILLAGE, :  
CONNECTICUT : JUNE 16, 2008

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

On May 30, 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.

Also, on May 30, 2008, Cellco acquired the Alltel Communications CT-1 RSA cellular license for Litchfield County, Connecticut. If the proposed Falls Village Facility is approved, Cellco would install equipment and antennas that would provide service in both the cellular and PCS frequency bands.

Question No. 1

Did the Applicants receive return receipts for all adjacent landowners listed behind Tab 5 of the application? If not, was any additional effort made to make sure that notice was received by these property owners?

Response

Yes.

Question No. 2

Who is the owner of the property on Map 15 Lot 20? The Abutters Map behind Tab 1 of the application shows Penny Fisher owning the property, while the list of adjacent property owners behind Tab 5 of the application shows John W. Wandell owning the property.

Response

We have confirmed that, according to the Town of Canaan Assessor's records, the owner of Lot 20 is John W. Wandell.

Question No. 3

How many antennas would the Town and Falls Village Fire Department install on the proposed tower? To what height would the top of the antennas extend?

Response

We have not yet received information regarding the antenna needs of the Town or the Falls Village Volunteer Fire Department ("FVFD"). We will provide this information to the Council as soon as it is available.

Question No. 4

Has Cellco calculated the predicted power density with the addition of the potential Town's antennas?

Response

No. These calculations cannot be performed until the antenna and power output information is received.

Question No. 5

Discuss the Wireless Communications and Public Safety Act of 1999 (the 911 Act) and the Enhanced 911 Act. How does the proposed site comply with these Acts?

Response

The Wireless Communications and Public Safety Act of 1999 (the “WCPS Act”) was enacted to promote and enhance public safety by making 911 the universal emergency assistance number, by furthering deployment of wireless 911 capabilities and related functions, and by encouraging construction and operation of seamless, ubiquitous and reliable networks for wireless services.

The Enhanced 911 Act of 2004 (the “E-911 Act”) was enacted to facilitate the reallocation of spectrum from the government to commercial users; improve, enhance and promote Homeland Security, public safety, and citizen activated emergency response capabilities through enhanced 911 services; upgrade Public Safety Answering Point (PSAP) capabilities and related functions in receiving E-911 calls; and support the construction of a ubiquitous and reliable citizen activated system.

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.

Technology satisfying the Phase 1 and Phase 2 requirements has been incorporated into all existing Cellco facilities in Connecticut and will be installed in the proposed Falls Village Facility.

Question No. 6

Please provide more detail on the reason for rejecting the use of any of the CL&P transmission line poles off of Beebe Hill Road.

Response

As depicted on the Search Area Map, the CL&P transmission line falls outside the designated search ring and is located approximately 2,000 feet north of the proposed Falls Village Facility. Use of the CL&P poles, with antennas at the same overall height (AMSL) as the proposed Falls Village Facility, would likely provide comparable coverage to that from the proposed FVFD site.

As the Council is aware from discussions in prior dockets, Cellco is reluctant to utilize CL&P structures for a number of reasons. First, certain utility structures, which may work from an RF perspective, may be inaccessible due to topography or remoteness of the location. Second, carriers may need to obtain certain legal/property rights from the underlying landowner who may or may not be willing to lease space for the installation of ground-mounted equipment or shelters near the base of the CL&P tower or provide for access to the tower location. The Council is very familiar with the recent experience of Sprint Nextel related to this same transmission line running through a portion of property owned by Carl Bornemann. Third, due to the nature of the electric transmission business, CL&P will often impose extraordinary access restrictions on these transmission line structures, for understandable reasons. Those restrictions, however, will limit Cellco's ability to access the structure for construction and/or maintenance of its cell site. As

Cellco knows from recent experience at its Bethel North facility, delays in receiving an outage so that work on the CL&P structure may be completed can significantly delay the installation and operation of an approved facility. In the case of Bethel North, for example, the Siting Council approved Cellco's use of this CL&P structure on January 4, 2007. Due to a series of outage delays, cancellations and other events outside of Cellco's control, construction of the Bethel North facility has not been completed almost 1 ½ years later. This is not a criticism of CL&P, but an example of the natural business conflict between the needs of CL&P to provide for electric transmission service and the needs of Cellco to construct and maintain a network of cell sites that provide essential service to customers and emergency service providers. Finally, these same access issues present municipalities and emergency service providers with an insurmountable hurdle. Emergency service providers need to be able to access their antennas and equipment 24 hours a day, seven days a week, to maintain the integrity of their public safety communications system. A tower site located on the FVFD property offers a much more suitable location for the local emergency service providers.

Question No. 7

What is the height of the CL&P transmission structures near the proposed site?

Response

The nearest CL&P structures, located approximately 2,000 feet north of the proposed Falls Village Facility, is approximately 85 feet tall.

Question No. 8

Would installation of Cellco antennas at the top of, or increasing the height of, any nearby transmission line structures eliminate the need for the construction of the proposed site?

Response

If Cellco were to utilize one of these CL&P structures we assume, based on structure height and ground elevation, extension of the existing CL&P structure would be required to match the proposed antenna height (AMSL) and compensate for relocating its antennas approximately 2,000 feet north of the proposed Falls Village Facility.

The ground elevation along the CL&P transmission line referenced in Response to Council Question No. 7 above varies. Along Route 7, the ground elevation is comparable to that at the FVFD property. The ground elevation rises to the east of Route 7 and falls off to the west of Route 7. Existing topography in the area, particularly Beebe Hill, would restrict Cellco's ability to use any of the CL&P structures, except for those closest to Route 7.

Question No. 9

Has Cellco investigated the potential use of microcells, repeaters or distributed antenna systems to provide coverage to the existing gaps in Falls Village? Please describe the reason each of these technologies were rejected.

Response

No. The area that Cellco intends to cover from the Falls Village Facility, including significant portions of Route 7 and portions of Routes 126 and 112, is too large to reliably serve with microcells, repeaters or a distributed antenna system, especially at PCS frequencies.

Question No. 10

What are the dominate vegetation types at the host property? What is the dominate vegetation types surrounding the host property?

Response

The vegetation communities on the host property are common to post agricultural mid- to late-succession growth with the exception of areas disturbed as a result of recent clearing activities associated with the proposed development of the host property as a fire department and ambulance service center and a gravel pit. VHB identified the following vegetative community types on the host property: cleared area, young pine grove, gravel pit, and oak forest. The following vegetative communities were identified on adjoining properties: oak forest, sawmill yard and business development, residential yard, upland meadow, and cultivated field.

Question No. 11

Would Cellco design the proposed tower in accordance with the Electronic Industries Association Standard EIA/TIA-222-F?

Response

Pursuant to Section 3108 of the 2003 International Building Code, the tower will be designed to meet the requirements of EIA/TIA-222-F. An analysis will also be prepared in accordance to the requirements of the most current version of EIA/TIA-222-G. The more stringent of the two versions will be used for the final design of the Falls Village tower.

Question No. 12

How much grading and filling would be required for the construction of the proposed site?

Response

Access Drive:	20 cubic yards cut	75 cubic yards fill
Compound:	50 cubic yards cut	350 cubic yards fill
Total Net:	355 cubic yards fill	

Question No. 13

Is blasting expected to be necessary for the construction of the proposed facility?

Response

No.

Question No. 14

What is the distance of the nearest point of the proposed compound to the nearest point of the future FVFD building?

Response

The southeast corner of the Falls Village Facility compound is approximately 90 feet from the northwest corner of the proposed FVFD building. (See Application Tab 1 – Plan Sheet C-1).

Question No. 15

Would a yield point be designed into the proposed tower to keep the tower from falling on the future FVFD building? If so, at what height above ground level would the yield point be designed?

Response

A yield point could be designed into the FVFD tower at approximately 54 feet above ground level, if required by the Council.

Question No. 16

Provide the owner's name and the address of the property that contains the nearest residence.

Response

The nearest residence is located approximately 706 feet to the southeast of the FVFD tower. This residence is owned by John W. Wandell, 197 Route 7 South.

Question No. 17

What is the name, distance and direction of the closest public airfield from the proposed site?

Response

The nearest public landing area is a heliport located at the Sharon Hospital approximately 6.6 miles southwest of the proposed Falls Village Facility. The nearest airport is located 14.5 miles to the north in Great Barrington, Massachusetts.

Question No. 18

Please estimate the height of the proposed tower visible above the tree line for each of the photo simulations behind Tab 10 of the application.

Response

1. Six Rod Road at Route 7, looking northwest – This photo location is 0.07 mile from the proposed facility and sits at a ground elevation of approximately 656 feet AMSL. The intervening vegetation consists of mature deciduous trees that generally range from 60 feet to 75 feet in height. The viewshed model (Tab 10) indicates that roughly 50% of the tower structure (approximately 80 feet) would be visible from this location. Based on the results of the balloon float conducted by VHB as part of visual analysis, it appears that approximately 65 to 75 feet of the monopine would be visible above the surrounding tree canopy.

2. Beebe Hill Road at Six Rod Road, looking southwest – This photo location is 0.23 mile from the proposed facility and has a ground elevation of roughly 771 feet AMSL. The surrounding vegetation consists of mature deciduous trees that typically range in height from 60 feet to 75 feet with smaller trees and shrubs located along Beebe Hill Road. The existing vegetation in the general vicinity of the photo point provides adequate screening looking in the direction of the proposed facility. According to the viewshed map contained in Tab 10, this photo location is situated between an area where the upper 25% of the monopine is expected to be visible (approximately 40 feet; shown in yellow) and an area where roughly 50% of the monopine may be visible (shown in red). An intermittent gap in the existing vegetation along Beebe Hill Road affords an open southwesterly view. VHB estimates that approximately 70 feet to 75 feet of the proposed monopine would be visible about the surrounding tree canopy from this location. However, as evidenced from the photographic documentation and simulations (Tab 10) included in our visual analysis, the tower structure is set into a ridgeline and does appear to be significantly taller than the adjacent vegetation.
3. Beebe Hill Road north of Six Rod Road, looking southwest – This photo location is 0.23 mile from the proposed facility and has a ground elevation of roughly 764 feet AMSL. The surrounding vegetation consists of mature deciduous trees that typically range in height from 60 feet to 75 feet with smaller trees and shrubs located along Beebe Hill Road. The existing vegetation in the general vicinity of the photo point provides adequate screening looking in the direction of the proposed facility. An intermittent gap in the existing vegetation along Beebe Hill

Road affords a brief southwesterly view. The viewshed model contained in Tab 10 indicates that roughly 50% of the tower structure would be visible from this location. VHB estimates that approximately 75 feet to 80 feet of the proposed monopine would be visible above the surrounding tree canopy from this location.

4. Route 112 adjacent to house #531 - This photo location is 1.12 miles from the proposed facility and sits at roughly 539 feet AMSL. The surrounding vegetation consists of mature deciduous trees that typically range in height from 40 feet to 65 feet with smaller trees and shrubs located just north of Route 112. A small gap in the existing vegetation provides an intermittent view looking in the direction of the proposed facility. This view would not be a dominant feature as motorists and others traverse this segment of Route 112, a two lane arterial roadway. Also, as shown in the photographic documentation/simulation contained in Tab 10, this view would be obstructed by several existing trees and shrubs if one walked several feet to the east or west. The viewshed model (Tab 10) indicates potential views of the proposed monopine from this location would be limited to the upper 25% of the tower structure. VHB estimates that approximately 50 to 60 feet of the monopine would be visible above the surrounding tree canopy from this location.
5. Route 112 west of Route 7, looking northeast - This photo location is 1.03 miles from the proposed facility and has a ground elevation of roughly 540 feet AMSL. The intervening vegetation consists of deciduous trees that typically range in height from 40 feet to 65 feet. The viewshed model (Tab 10) indicates that the upper 25% of the tower structure would be visible from this location. Based on the results of the balloon conducted by VHB as part of visual analysis, it appears

that approximately 80 to 90 feet of the monopine would be visible above the surrounding tree canopy from the specific area from where the photograph was taken. The portion of the monopine that may extend above the surrounding tree canopy would be significantly reduced and/or minimized as one moves slightly north, east or west. Existing trees and shrubs would act to obstruct views south of Route 112. Overall, this view could be characterized as passing or intermittent. Similar to View 4, a small gap in the existing vegetation provides an intermittent view looking in the direction of the proposed facility. This view would be obstructed and/or eliminated by several existing trees and shrubs if one walked several feet to the east or west.

6. Route 112 at Route 7 traffic triangle, looking northeast - This photo location is 0.96 mile from the proposed facility and has a ground elevation of roughly 538 feet AMSL. The intervening vegetation consists of deciduous trees that typically range in height from 40 feet to 65 feet. The viewshed model contained in Tab 10 indicates that the upper 25% of the tower structure would be visible from this location. Based on the results of the balloon float conducted by VHB as part of visual analysis, it appears that approximately 65 to 75 feet of the monopine would be visible above the surrounding tree canopy from the specific location where the photograph was taken. Our predictive viewshed model calculates the visibility in a somewhat uniform manner and does not always account for small variations that may exist in the location, height and spacing of specific trees and other vegetation. Such small variations do not impact the overall conclusions of our analysis. In this particular photograph, existing vegetation north of Route 112 would reduce

the amount of the monopine that may extend above the tree canopy by slightly shifting the orientation of the photograph to a more northeasterly view. However, it is our policy to depict the most prominent view of the proposed facility.

7. Route 7 north of Route 112 – This photo location is 0.82 mile from the proposed facility and has a ground elevation of roughly 537 feet AMSL. The surrounding vegetation consists of mature deciduous trees that typically range in height from 60 feet to 75 feet. The existing vegetation in the general vicinity of the photo point provides adequate screening looking in the direction of the proposed facility.

According to the viewshed map contained in Tab 10, potential views of the proposed facility would be limited to the upper 25% of the tower structure. A small gap in the existing vegetation along Route 7 affords an intermittent view to the northeast. VHB estimates that approximately 40 feet to 50 feet of the proposed monopine would be momentarily in view from this segment of Route 7.

8. Semi-exposed outcrop along Mohawk Trail (CT Blue Blaze) west of lookout point, looking northwest - This photo location is 0.65 mile from the proposed facility and sits at a ground elevation of approximately 1,103 feet AMSL. The intervening vegetation consists of deciduous and evergreen trees that generally range from 60 feet to 75 feet in height. The viewshed model (Tab 10) indicates that views of the proposed facility would be limited to the upper 25% of the tower structure. Based on the results of the balloon float conducted by VHB as part of visual analysis, it appears that approximately 10 to 20 feet of the monopine would be visible through the surrounding tree canopy. Potential views would be mostly obstructed by existing vegetation.

9. Beebe Hill Road, looking northwest - This photo location is 0.35 mile from the proposed facility and has a ground elevation of roughly 743 feet AMSL. The surrounding vegetation consists of mature deciduous trees that typically range in height from 60 feet to 75 feet with smaller trees and shrubs located along Beebe Hill Road. The existing vegetation in the general vicinity of the photo point provides adequate screening looking in the direction of the proposed facility. According to the viewshed map contained in Tab 10, the proposed facility would be limited to the upper 25% of the tower structure. Based on the results of the balloon float conducted by VHB as part of visual analysis, it appears that approximately 20 to 25 feet of the monopine would be visible through the surrounding tree canopy. Potential views would be mostly obstructed by existing vegetation.

Question No. 19

What land use types would have year-round views of the proposed facility?

Response

Low density residential, agricultural and undeveloped land.

Question No. 20

From what streets would the proposed tower be seasonally visible?

Response

Cellco estimates that seasonal visibility may exist from portions of Route 7, Beebe Hill Road and Six Rod Road within ¼ mile of the FVFD site.

Question No. 21

Would Cellco need an additional site to provide coverage north of the proposed site?

Response

Yes. At both cellular and PCS frequencies, Cellco would need one additional facility to the north to provide continuous, reliable coverage along Route 7 between its existing North Canaan facility and the proposed Falls Village Facility. (See Application, Tab 7 – Coverage Plots showing existing and proposed PCS coverage and Coverage Plots behind Tab 1 of these responses showing existing and proposed cellular coverage in the Falls Village area).

Question No. 22

What is the existing signal level in the area of the proposed sites?

Response

The existing signal level in the area ranges from -86 dBm and -104 dBm at both PCS and cellular frequencies.

Question No. 23

Provide the structure types, antenna heights, addresses, direction and distances of all Cellco facilities that would directly interact with the proposed site.

Response

The proposed Falls Village Facility will interact with Cellco's Sharon North facility to the south and its North Canaan facility to the north. Cellco's Sharon North facility is a 130-foot "monopine" tree tower at 477 Route 7 in Sharon, Connecticut, approximately 2.4 miles to the south of the proposed Falls Village Facility. Cellco antennas are located at the 130-foot level on this tower.

Cellco's North Canaan facility is a 195-foot lattice tower at 38 Lower Road in North Canaan, Connecticut, approximately 5.13 miles northeast of the proposed Falls Village Facility. Cellco antennas are located at the 168-foot level on this tower.

Question No. 24

Would Cellco be willing to use a fuel cell at the proposed site?

Response

No. Cellco intends to use commercial electric service extending from existing CL&P service along Route 7 to power the FVFD tower site. Emergency power at the cell site will be supplied by a diesel-fueled back-up generator installed inside Cellco's equipment shelter.

Question No. 25

Does Cellco have any plans to install fuel cells at any existing or future sites in Connecticut?

Response

Not at this time.

Question No. 26

Provide a multi-signal level propagation plot (including the signal levels Cellco designs for), at a scale of 1:30,000, depicting coverage from the following:

- a) existing sites and proposed site at an antenna height of 140 feet above ground level.
- b) existing sites and proposed site at an antenna height of 130 feet above ground level.

Response

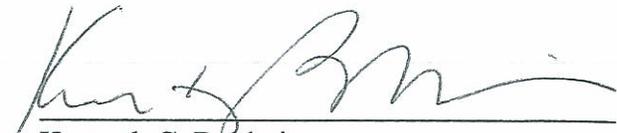
As discussed above, Cellco has recently acquired and expects to deploy both PCS and cellular service at the proposed Falls Village Facility. Included behind Tab 2 of these responses are coverage plots depicting coverage from the proposed Falls Village Facility at the heights requested at both PCS and cellular frequencies.

CERTIFICATE OF SERVICE

I hereby certify that on the 16<sup>th</sup> of June, 2008, a copy of the foregoing was mailed,  
postage prepaid, to:

Dina K. Jaeger  
167 Beebe Hill Road  
Falls Village, CT 06031

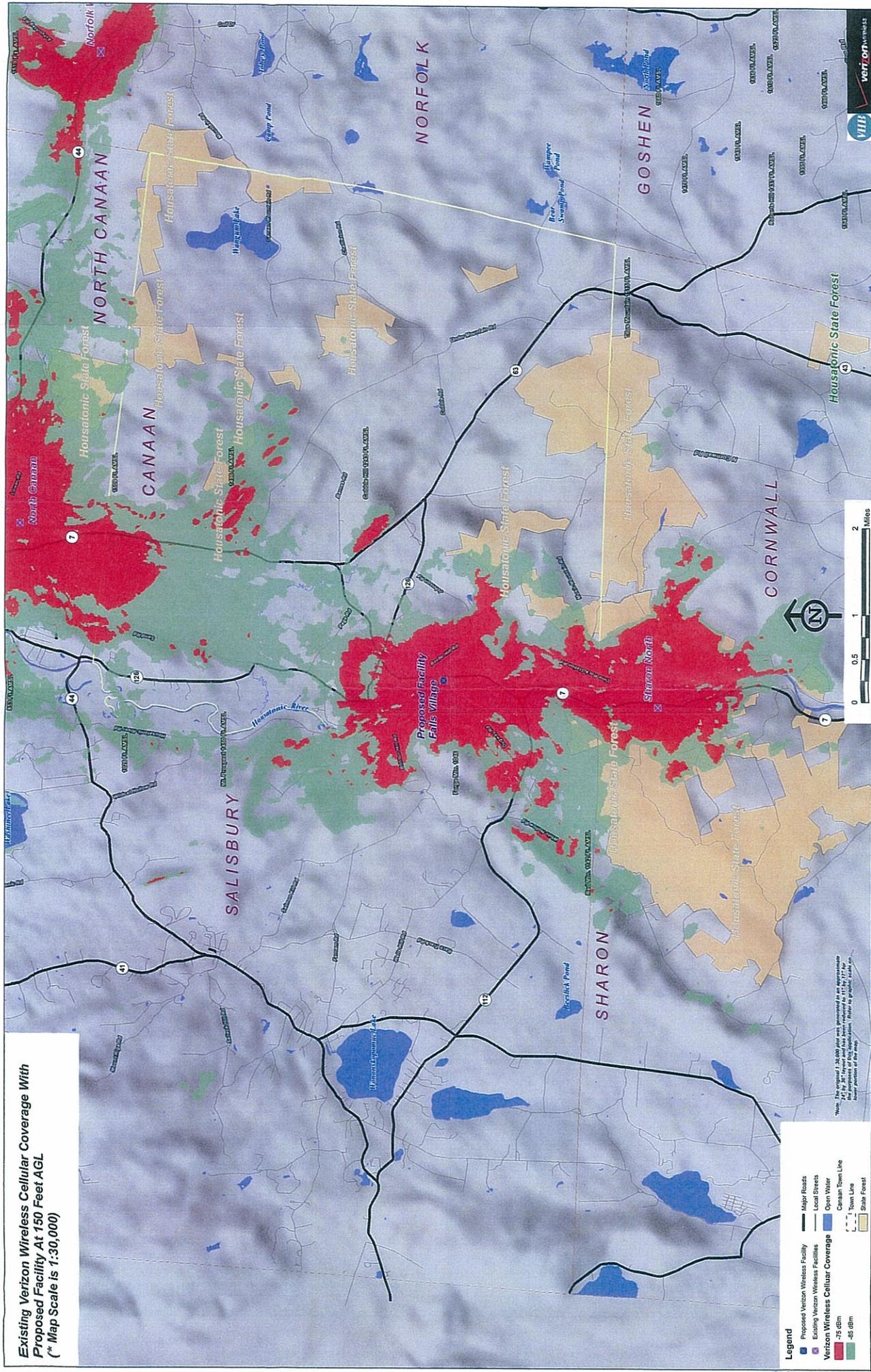
Robert H. Rout, Esq.  
160 Wells Hill Road  
Lakeville, CT 06039



Kenneth C. Baldwin



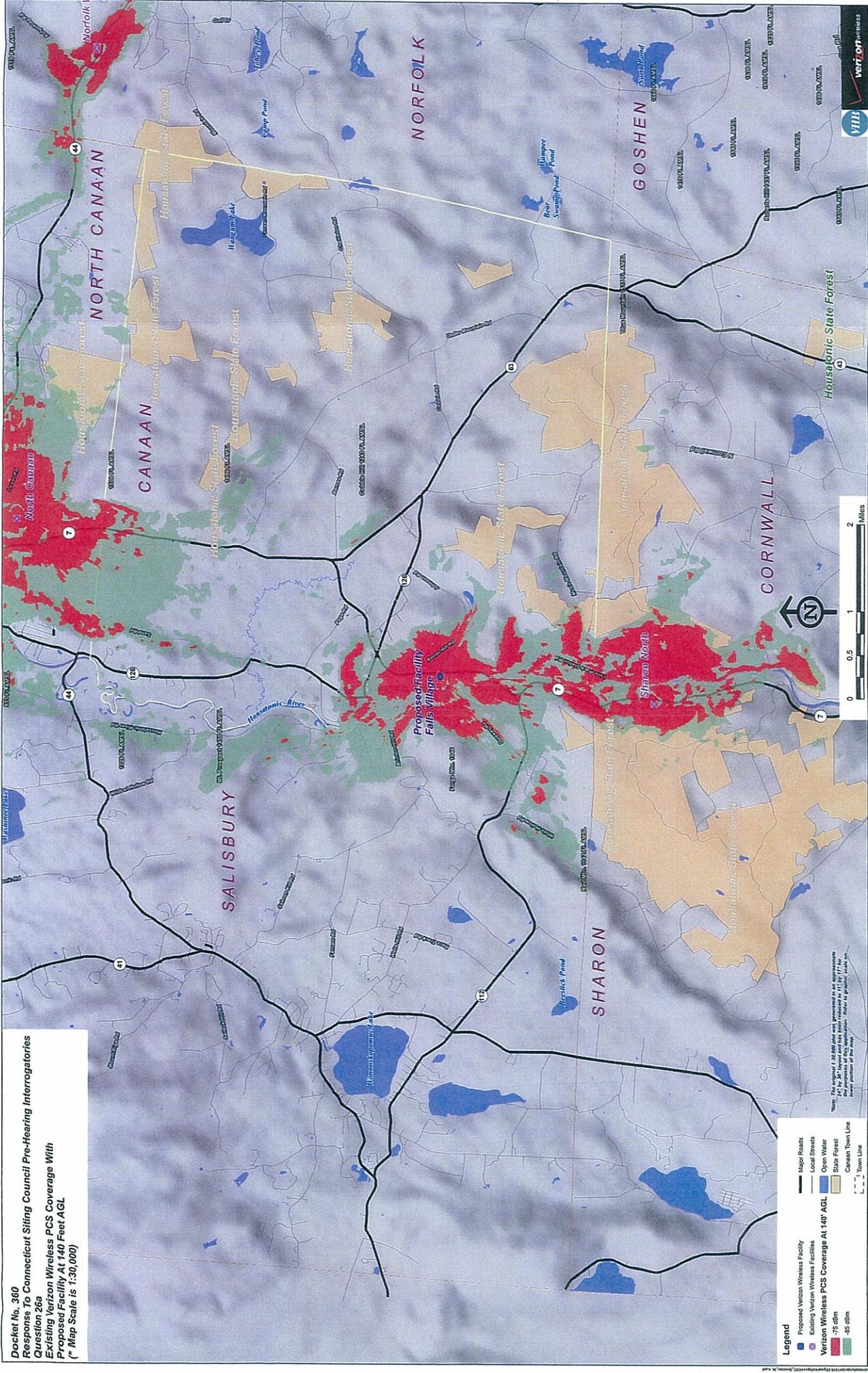
**Existing Verizon Wireless Cellular Coverage With Proposed Facility At 150 Feet AGL**  
 (\* Map Scale is 1:30,000)



\*Note: The data for this map was generated as an output from a model run by Verizon Wireless. The model run was performed as part of the environmental review process for this facility. Please refer to the map for more information.



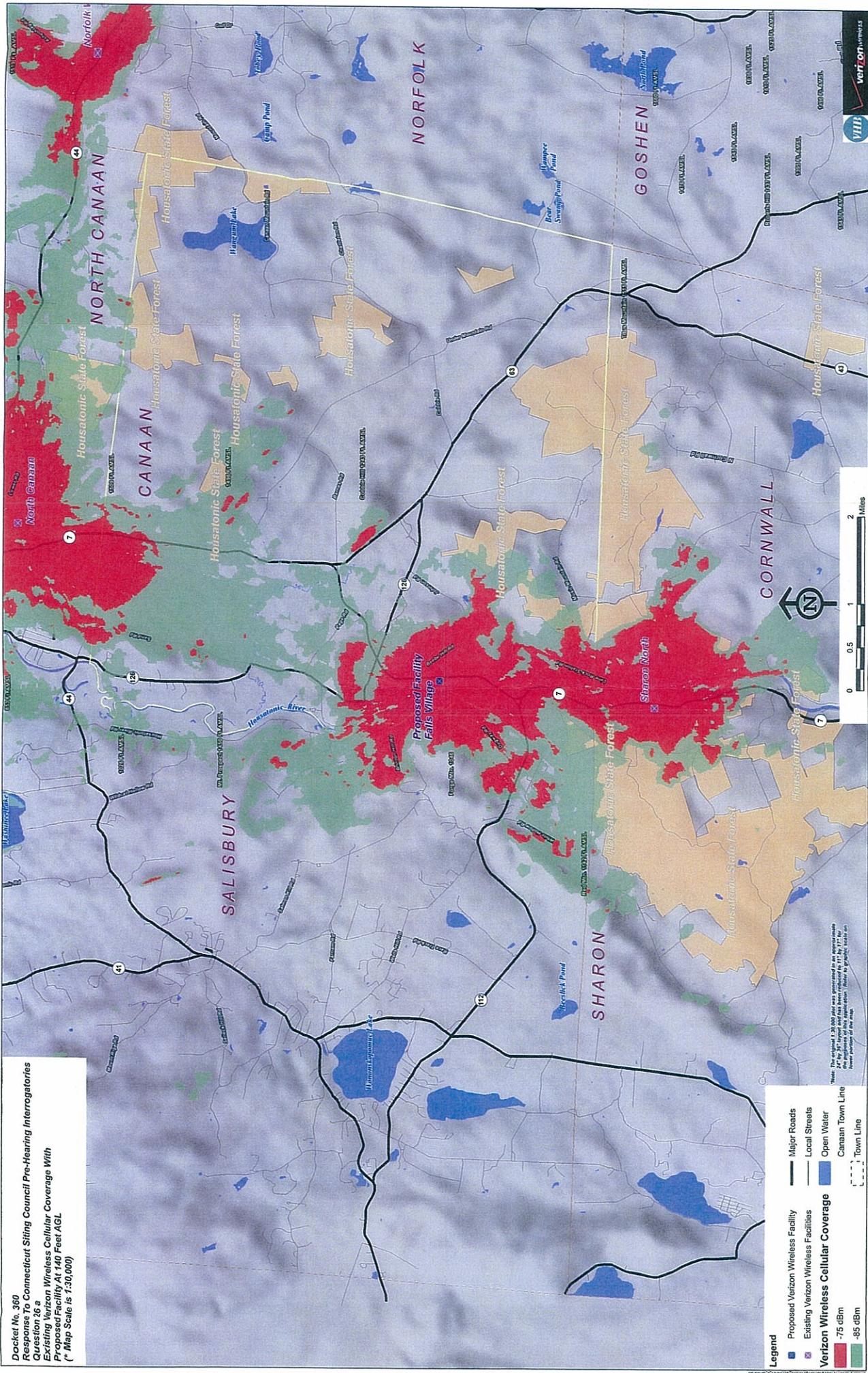
Docket No. 360  
 Responses To Connecticut Siting Council Pre-Hearing Interrogatories  
 Question 28a  
 Existing Verizon Wireless PCS Coverage With  
 Proposed Facility At 140 Feet AGL  
 (Map Scale is 1:30,000)



Note: The original 1:30,000 scale map was prepared in accordance with the requirements and purposes of 40a regulations. Refer to graphic scale for proper portions of the map.



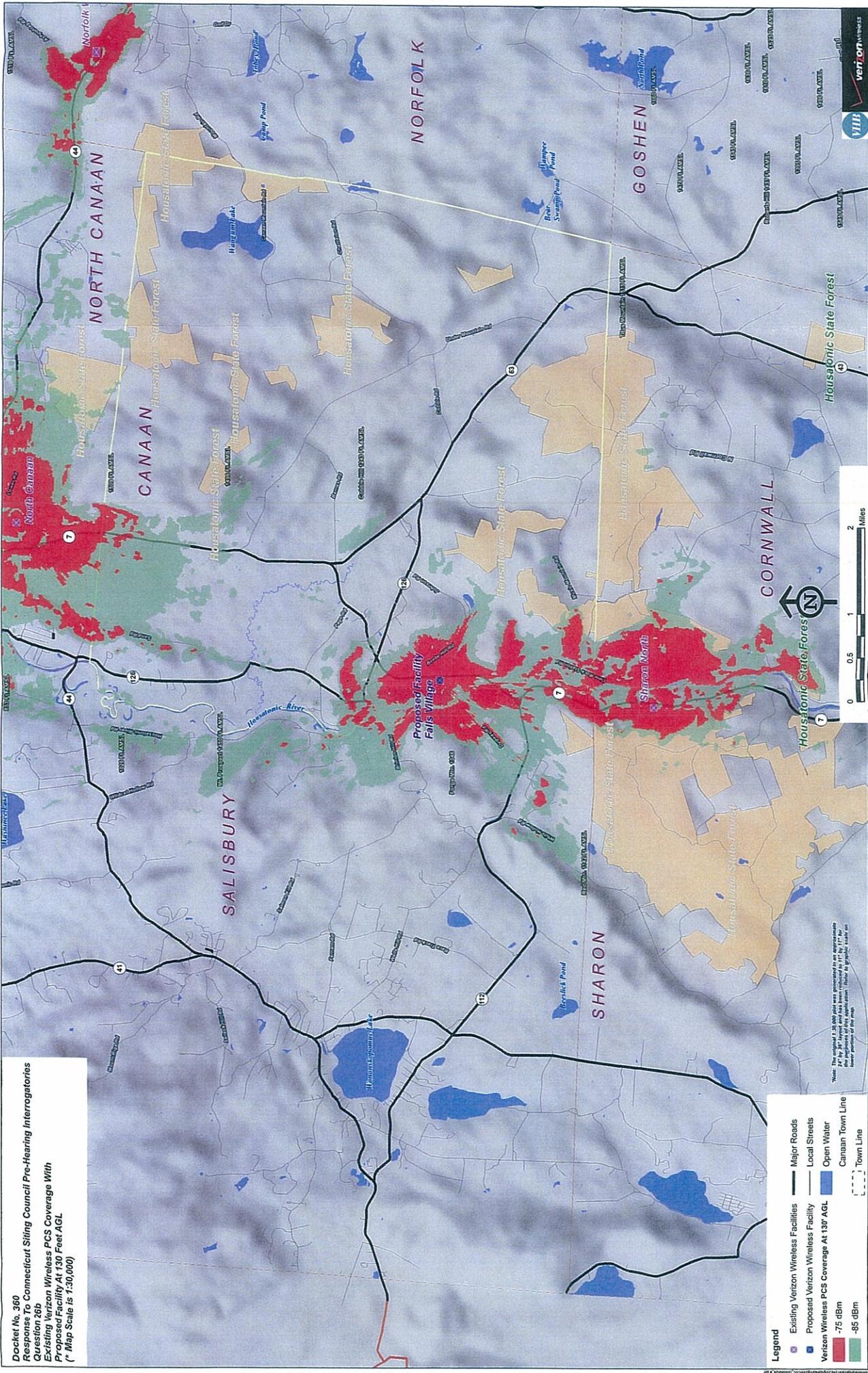
Docket No. 360  
 Response To Connecticut Siting Council Pre-Hearing Interrogatories  
 Question 26  
 Existing Verizon Wireless Cellular Coverage With  
 Proposed Facility At 140 Feet AGL  
 (" Map Scale is 1:30,000)



Note: The original 1:25,000 plan was generated as an aerial photo. The map is a vectorized version of the original plan. The map is not a true representation of the terrain. The map is a vectorized version of the original plan.

- Legend**
- Proposed Wireless Facility
  - Existing Wireless Facilities
  - Verizon Wireless Cellular Coverage
  - 75 dBm
  - 85 dBm
  - Major Roads
  - Local Streets
  - Open Water
  - Canaan Town Line
  - Town Line

Docket No. 360  
 Response to Connecticut Siting Council Pre-Hearing Interrogatories  
 Question 20  
 Existing Verizon Wireless PCS Coverage With  
 Proposed Facility At 130 Feet AGL  
 (\* Map Scale is 1:30,000)

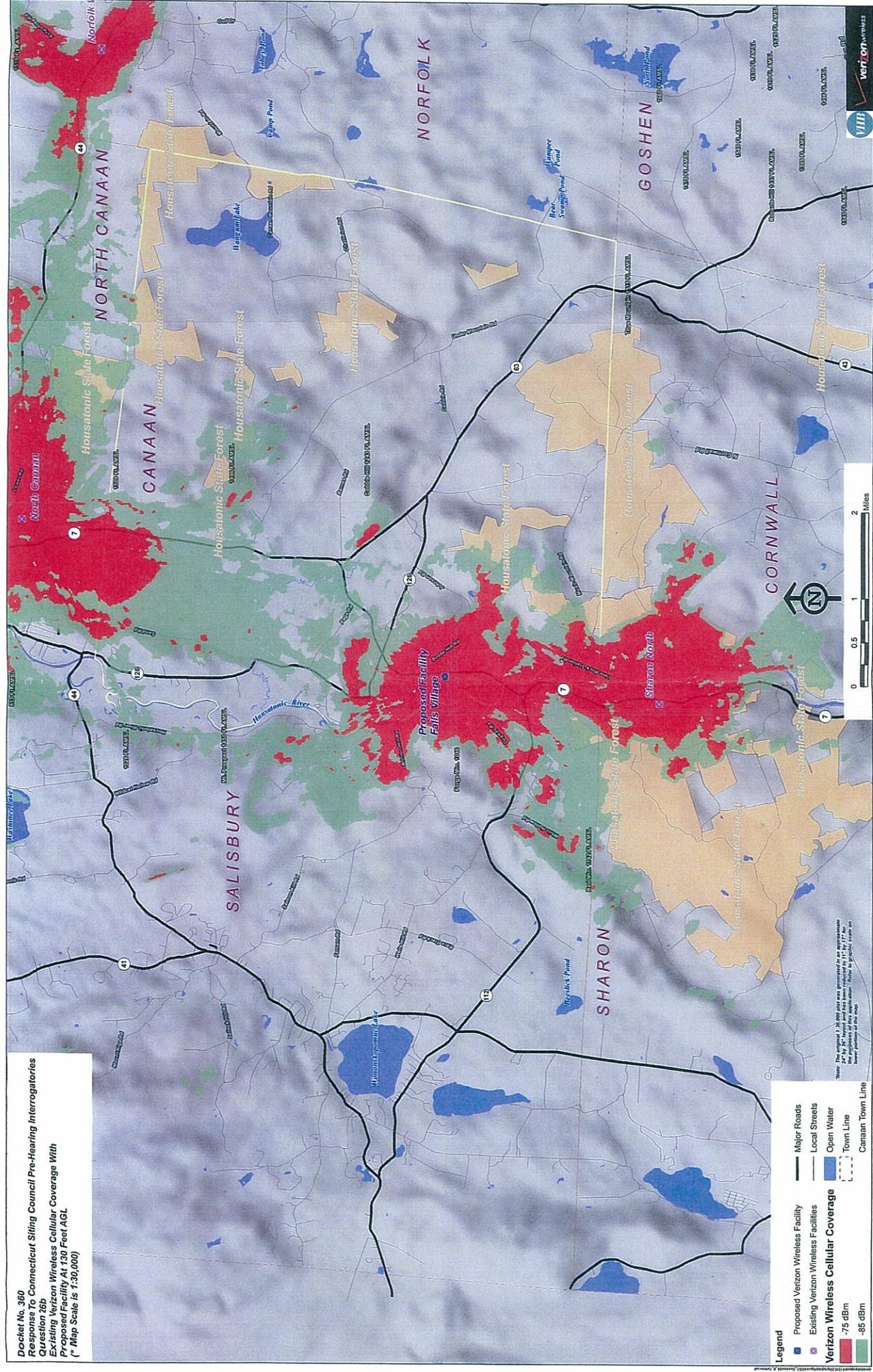


- Legend**
- Existing Verizon Wireless Facilities
  - Proposed Verizon Wireless Facility
  - Verizon Wireless PCS Coverage At 130' AGL
  - 75 dBm
  - 85 dBm
  - Major Roads
  - Local Streets
  - Open Water
  - Canaan Town Line
  - Town Line

\*Note: The original 1:30,000 foot was generated by an approved vendor using the parameters of the application. There is a potential for some lower portions of the map.



Docket No. 360  
 Responses To Connecticut Siting Council Pre-Hearing Interrogatories  
 Question 16b  
 Existing Verizon Wireless Cellular Coverage With  
 Proposed Facility At 130 Feet AGL  
 (\* Map Scale is 1:30,000)



**Legend**

- Proposed Verizon Wireless Facility
- Existing Verizon Wireless Facilities
- Verizon Wireless Cellular Coverage
- 75 dBm
- 85 dBm
- Major Roads
- Local Streets
- Open Water
- Town Line
- Canaan Town Line

Note: The proposed 130-foot tower was modeled to any adjacent areas that are not shown on the map. The map shows the proposed facility at 130 feet AGL. The map shows the proposed facility at 130 feet AGL. The map shows the proposed facility at 130 feet AGL.

