

STATE OF CONNECTICUT
CONNECTICUT SITING COUNCIL

IN RE: :
: :
APPLICATION OF CELLCO PARTNERSHIP : DOCKET NO. 350
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 IN THE : :
TOWN OF WOODSTOCK, CONNECTICUT : JANUARY 8, 2008

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

On December 18, 2007, 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 the Cellco's responses.

Question No. 1

What were the results of Cellco Partnership d/b/a Verizon Wireless' (Verizon Wireless) notice to abutting property owners? Did Verizon Wireless receive certified mail receipts from all abutters? If not, how many receipts were not returned? Did Verizon Wireless make any additional attempts to notify property owners from whom it might not have received return receipts?

Response

Cellco received certified mail receipts back from all but one abutting landowner. The notice to Susan Waterhouse, 869 Route 198 in Woodstock, was returned marked "unclaimed". Notice to Ms. Waterhouse was resent by regular mail.

Question No. 2

What is Verizon Wireless' existing signal strength in the area that would be covered by this facility?

Response

Cellco's existing wireless signal strength in the northwest area of Woodstock ranges between -86 dBm and -115 dBm in the area that would be covered by the proposed facility.

Question No. 3

What is the minimum signal level Verizon Wireless would consider acceptable for service in the vicinity of the proposed site?

Response

Cellco's minimum signal threshold is -85 dBm.

Question No. 4

What is the minimum signal level that Verizon Wireless requires in order to provide adequate in-vehicle coverage? What is the minimum signal level that Verizon Wireless requires in order to provide adequate in-building coverage?

Response

Cellco's signal coverage threshold is -85 dBm for in-vehicle coverage and -75 dBm for in-building coverage.

Question No. 5

Provide a topographical map identifying the "site search ring" and the scale. When was the search ring initiated?

Response

Cellco established the Woodstock NW search area in September of 2006. A copy of the search ring map is included behind Tab 1.

Question No. 6

Identify the distance, direction, structure heights, antenna heights, and addresses of adjacent facilities with which the proposed facility would hand off traffic.

Response

Cellco's Woodstock NW facility will interact with Cellco's existing Union West facility located approximately 4.1 miles to the northwest; the proposed Woodstock North facility located approximately 2.4 miles to the north; and existing Woodstock/Coatney Hill Road facility located approximately 3.3 miles to the east.

Question No. 7

On Tab 7 of Verizon Wireless' Application for a Certificate of Environmental Compatibility and Public Need (Application), coverage plots are provided to show the existing coverage and the coverage with the proposed antennas centered at 137'. Provide cellular and PCS coverage plots (using the same scale provided) assuming the antennas are located at 127' and 117', respectively.

Response

Coverage plots requested are included behind Tab 2. Coverage at the various heights is quantified in the table below.

<u>Proposed Coverage at 137'</u>	<u>Cellular</u>	<u>PCS</u>
Route 198	3.3 miles	2.4 miles
Route 197	4.7 miles	2.8 miles
Route 171	2.5 miles	0 miles
Overall	10.2 square miles	3.5 square miles

<u>Proposed Coverage at 127'</u>	<u>Cellular</u>	<u>PCS</u>
Route 198	2.74 miles	2.32 miles
Route 197	4.26 miles	2.56 miles
Route 171	2.17 miles	0 miles
Overall	8.9 square miles	2.62 square miles

<u>Proposed Coverage at 117'</u>	<u>Cellular</u>	<u>PCS</u>
Route 198	2.66 miles	2.1 miles
Route 197	3.89 miles	2.16 miles
Route 171	1.9 miles	0 miles
Overall	8.1 square miles	2.3 square miles

Question No. 8

Approximately how long (in miles) are the existing cellular and PCS coverage gaps on Route 198, Route 197, and Route 171?

Response

	<u>Cellular Coverage Gap</u>	<u>PCS Coverage Gap</u>
Route 198	10.25 miles	12.1 miles
Route 197	4.54 miles	8.44 miles
Route 171	7.21 miles	7.81 miles

The large coverage gap along Route 198 extends from the Massachusetts state line to the area south of the intersection of Routes 198 and 171. Cellco intends to fill most of this gap with the Woodstock NW and proposed Woodstock North facilities.

Question No. 9

Are microcells or repeaters viable options for addressing the coverage gap?

Response

No. The area that Cellco anticipates to cover from the proposed Woodstock NW facility including coverage along Routes 197, 198 and 171, is too large to reliably and adequately serve with microcells or repeaters.

Question No. 10

Could Verizon Wireless use flush-mounting for its proposed antennas? How would coverage and capacity be affected by the flush-mounted configuration?

Response

Cellco could use flush-mounted antennas at the proposed cell site. If required to do so, however, Cellco would need to increase the centerline of its antennas from 137 feet to 147 feet in order to provide coverage comparable to that achieved from the tower site as proposed. By going to flush-mounted antennas, Cellco would experience loss in signal strength of up to 3 dB.

Question No. 11

Provide the following information for Verizon Wireless antennas that would be installed on this tower: number of channels per sector for each antenna system that would be installed on the proposed tower, watts ERP per channel for each antenna system, frequency at which each antenna system would operate, and height at which Verizon Wireless antennas would be installed.

Response

PCS Antennas

<u>Alpha Sector – 137 Ft.</u>	<u>Beta Sector – 137 Ft.</u>	<u>Gamma Sector – 137 Ft.</u>
Antenna Type: LPA – 185080/12CF	Antenna Type: LPA – 185080/12CF	Antenna Type: LPA – 185080/12CF
Frequency: 1970-1975 MHz	Frequency: 1970-1975 MHz	Frequency: 1970-1975 MHz
No. Channels: 6	No. Channels: 6	No. Channels: 6
ERP/Channel: 485 W Max	ERP/Channel: 485 W Max	ERP/Channel: 485 W Max

Cellular Antennas

<u>Alpha Sector – 137 Ft.</u>	<u>Beta Sector – 137 Ft.</u>	<u>Gamma Sector – 137 Ft.</u>
Antenna Type: LPA – 80080/6CF	Antenna Type: LPA – 80080/6CF	Antenna Type: LPA – 80080/6CF
Frequency: 869.88-878.49, 890.73 MHz	Frequency: 869.88-878.49, 890.73 MHz	Frequency: 869.88-878.49, 890.73 MHz
No. Channels: 9	No. Channels: 9	No. Channels: 9
ERP/Channel: 200 W Max	ERP/Channel: 200 W Max	ERP/Channel: 200 W Max

Question No. 12

Is the cellular frequency band primarily a voice transmitting system?

Response

Yes. Cellco's cellular frequencies in the Woodstock area are used primarily, but not exclusively as a part of its voice transmitting system.

Question No. 13

Is the PCS frequency band primarily a data transmitting system?

Response

Yes. Cellco's PCS frequencies in the Woodstock area are used primarily, but not exclusively for its data transmitting system.

Question No. 14

Describe PCS functions by today's criteria, its interface with cellular, and the potential future use.

Response

As discussed in prior dockets, in Connecticut today, PCS frequencies function primarily but not exclusively as a data carrier. In Fairfield County, for example, where Cellco provides both cellular and PCS service, similar to Windham County, voice traffic may in some places exceed the capacity of the existing cellular system. In these instances, voice traffic will utilize available spectrum at PCS frequencies. In Windham County, demand for wireless voice service is not expected to exceed the existing capacity of Cellco's cellular system. It is therefore anticipated that, for the foreseeable future, voice channels will remain on the cellular frequency bands and data services will remain on the PCS frequency bands. As use of the system increases in the future, available frequencies will be adapted as necessary.

Question No. 15

Calculate the amounts of cut and fill that would be required to develop this facility.

Response

Cut: Approximately 1030 cubic yards.

Fill: Approximately 275 cubic yards.

Question No. 16

How many trees with a diameter greater than six inches breast height would be removed during the development of the proposed access road and compound at the proposed site?

Response

Cellco anticipates the need to remove approximately 380 trees with a diameter greater than six inches at breast height to develop the proposed access road and site compound.

Question No. 17

Would any blasting be required at the proposed site?

Response

Until the final geotechnical survey is completed, at the time of development of the D&M Plan, Cellco will not know whether blasting will be required to construct the facility. However, based on existing site conditions, we do not anticipate the need for blasting.

Question No. 18

Would the proposed facility be E911 capable?

Response

Yes.

Question No. 19

Has the Applicant considered using a fuel cell for backup power at this site? Does Verizon Wireless have fuel cells at other Connecticut sites?

Response

Cellco does not currently utilize fuel cells as back-up power at any of its existing Connecticut cell sites, nor is it proposing to use a fuel cell as back-up power in Woodstock, Connecticut.

Question No. 20

Describe the form and function of a “level spreader” as depicted behind Tab 1, on Drawing S-1 of the Application.

Response

A “level spreader” is a device used to reduce the depth and velocity of concentrated runoff so that stormwater is released uniformly as sheet flow onto stable areas. Level spreaders usually consisting of a excavated depression with a broad stable discharge point at zero grade across a slope.

Question No. 21

Clarify the discrepancy of the location of the proposed access drive on a map behind Tab 12 and Tab 1, Drawing S-1.

Response

At the time of the wetland site inspection in June of 2007, final plans for the access road including a more precise routing of the access road, had not been developed. The plan included as a part of the wetlands report behind Attachment 12 and also as a part of the lease exhibit behind Attachment 14 of the Application depict a conceptual access road location. The final access road design as depicted in Drawing S-1 behind Attachment 1 of the Application illustrates an engineered road design taking into consideration the location of existing logging roads that runs through the subject parcel, site topography, and wetland impacts.

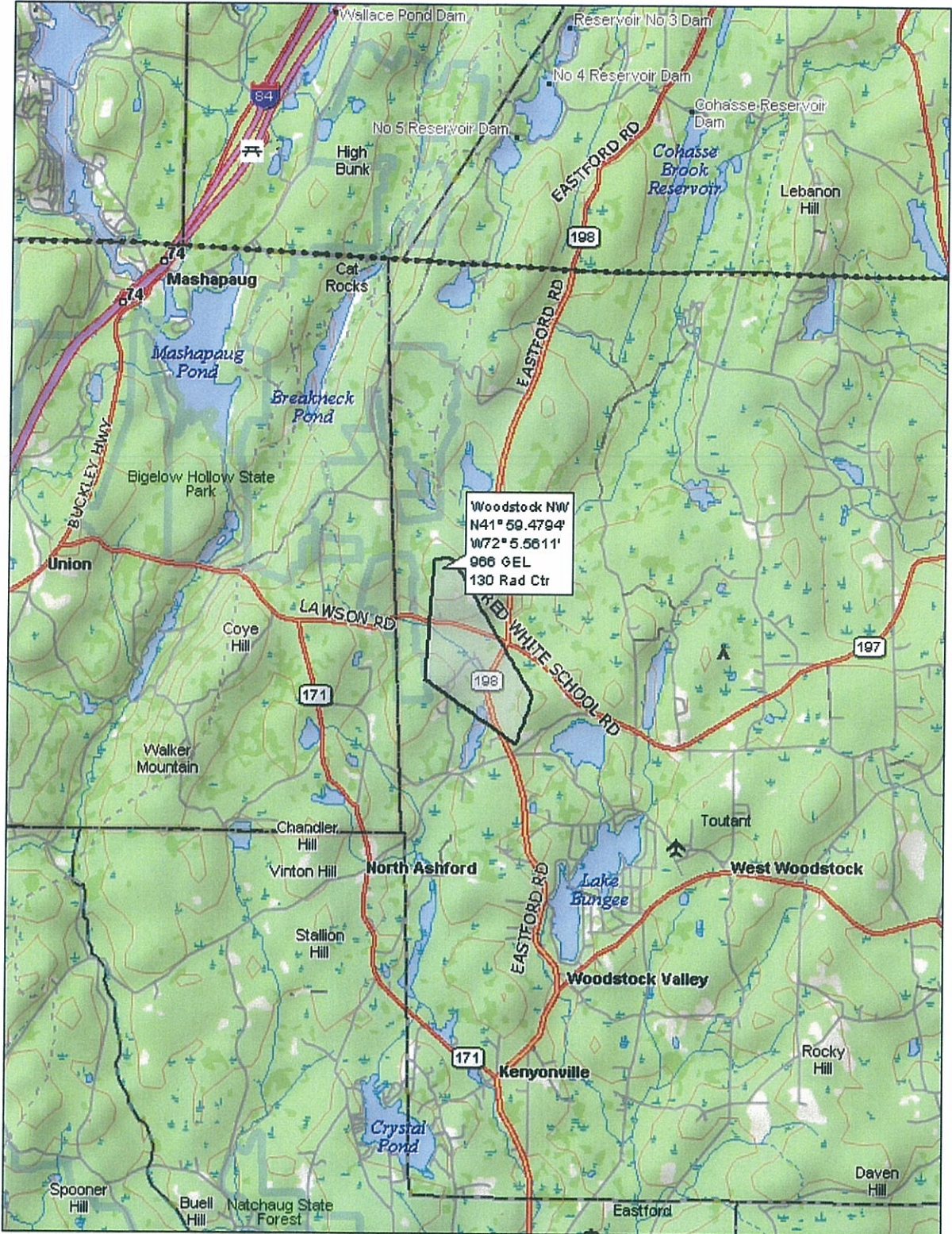
Question No. 22

Were other alternate access roads contemplated? If yes, provide documentation of location.

Response

The property maintains a number of existing logging roads. Cellco explored the use of several of these existing roads extending from Black Pond Road toward the proposed cell site location. By using a portion of one or more of these existing logging roads, Cellco can reduce the overall environmental impact to the cell site, especially where the existing road crosses the on-site wetland area. Once beyond the wetland area, however, the access road needed to extend off existing roadways to access the cell site.

Cellco did explore an option to access to the cell site from Old Turnpike Road through an adjacent parcel owned by the landlord. This adjacent parcel is the location of the landlords residence. The landowner would not permit access to the cell site from Old Turnpike Road through this adjacent parcel.



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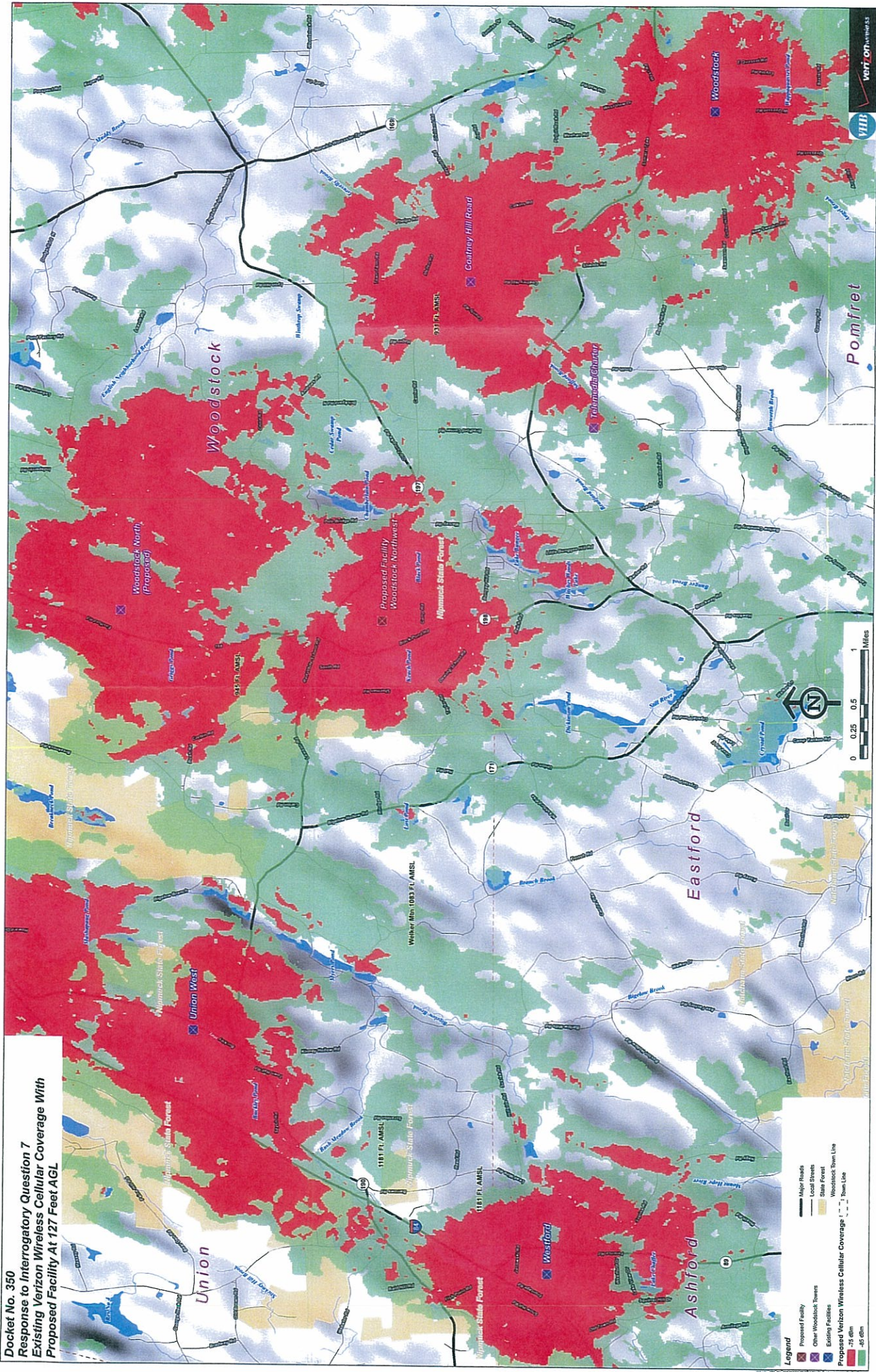
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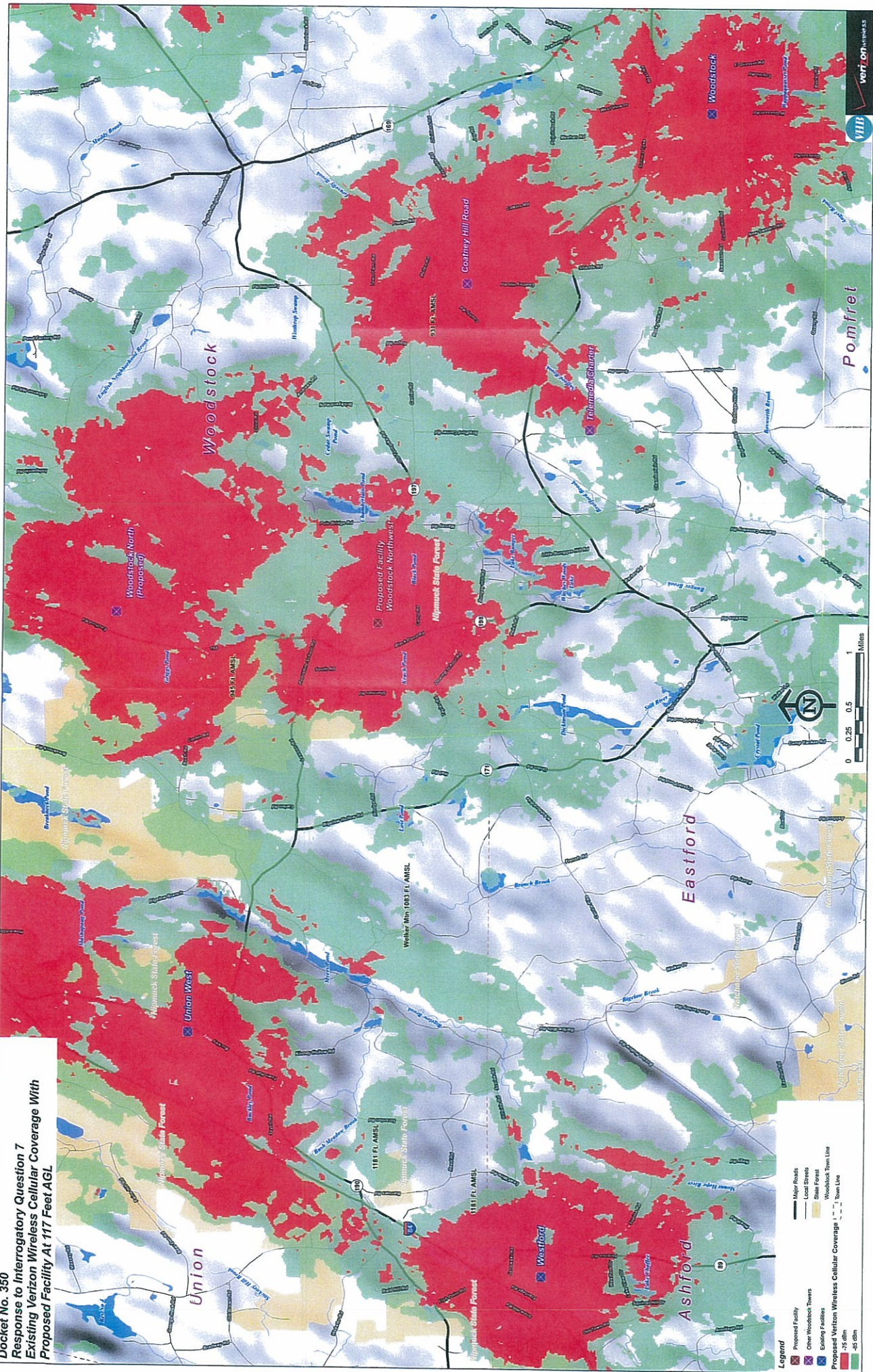
Docket No. 350
 Response to Interrogatory Question 7
 Existing Verizon Wireless Cellular Coverage With
 Proposed Facility At 127 Feet AGL



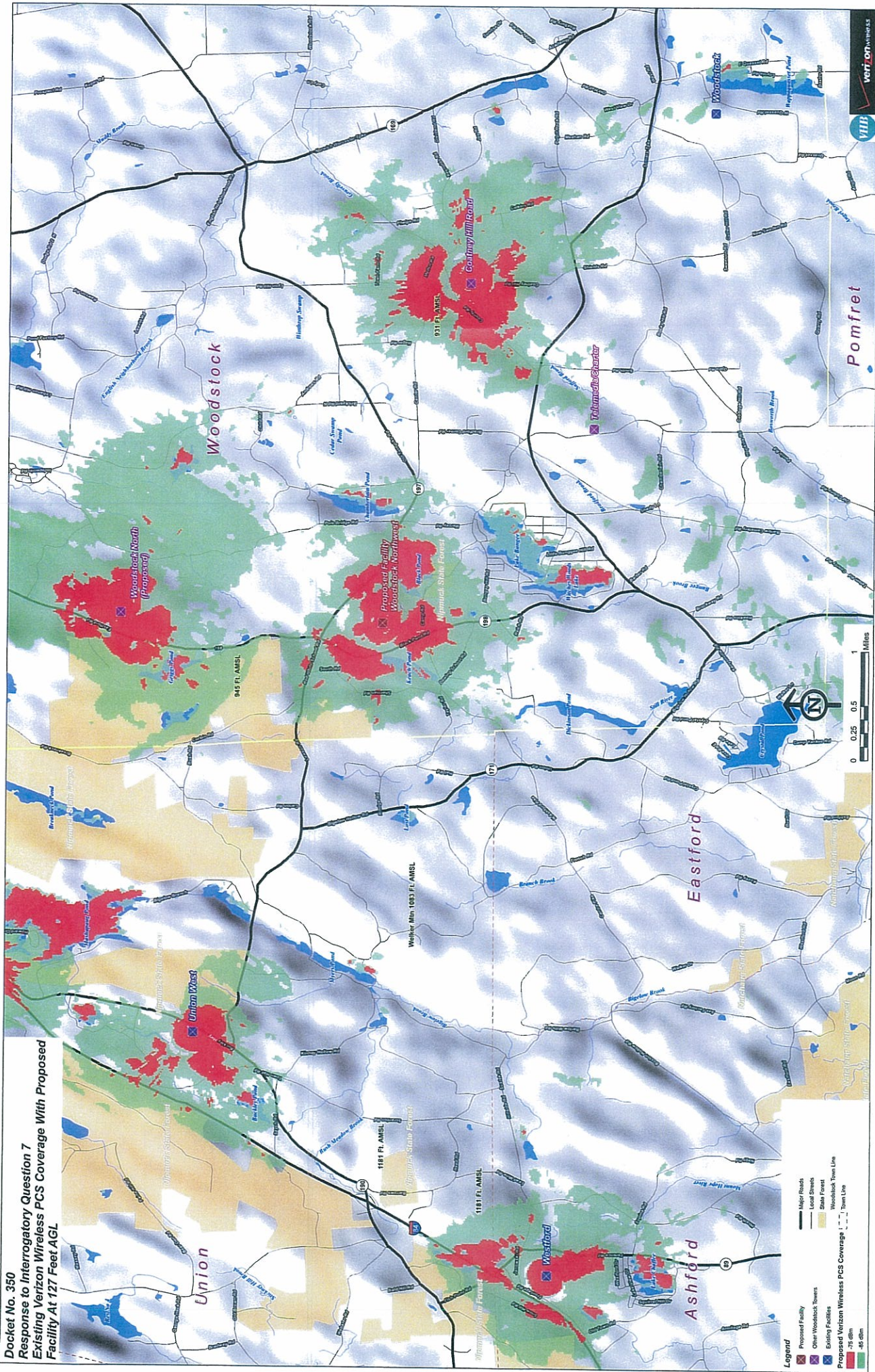
Legend

- Proposed Facility
- Other Woodstock Towers
- Existing Facilities
- Proposed Verizon Wireless Cellular Coverage at 127 Feet AGL
- Woodstock Town Line
- State Forest
- Major Roads
- Local Streets
- Scale
- North Arrow
- 0 0.25 0.5 1 Miles
- 75 dBm
- 85 dBm

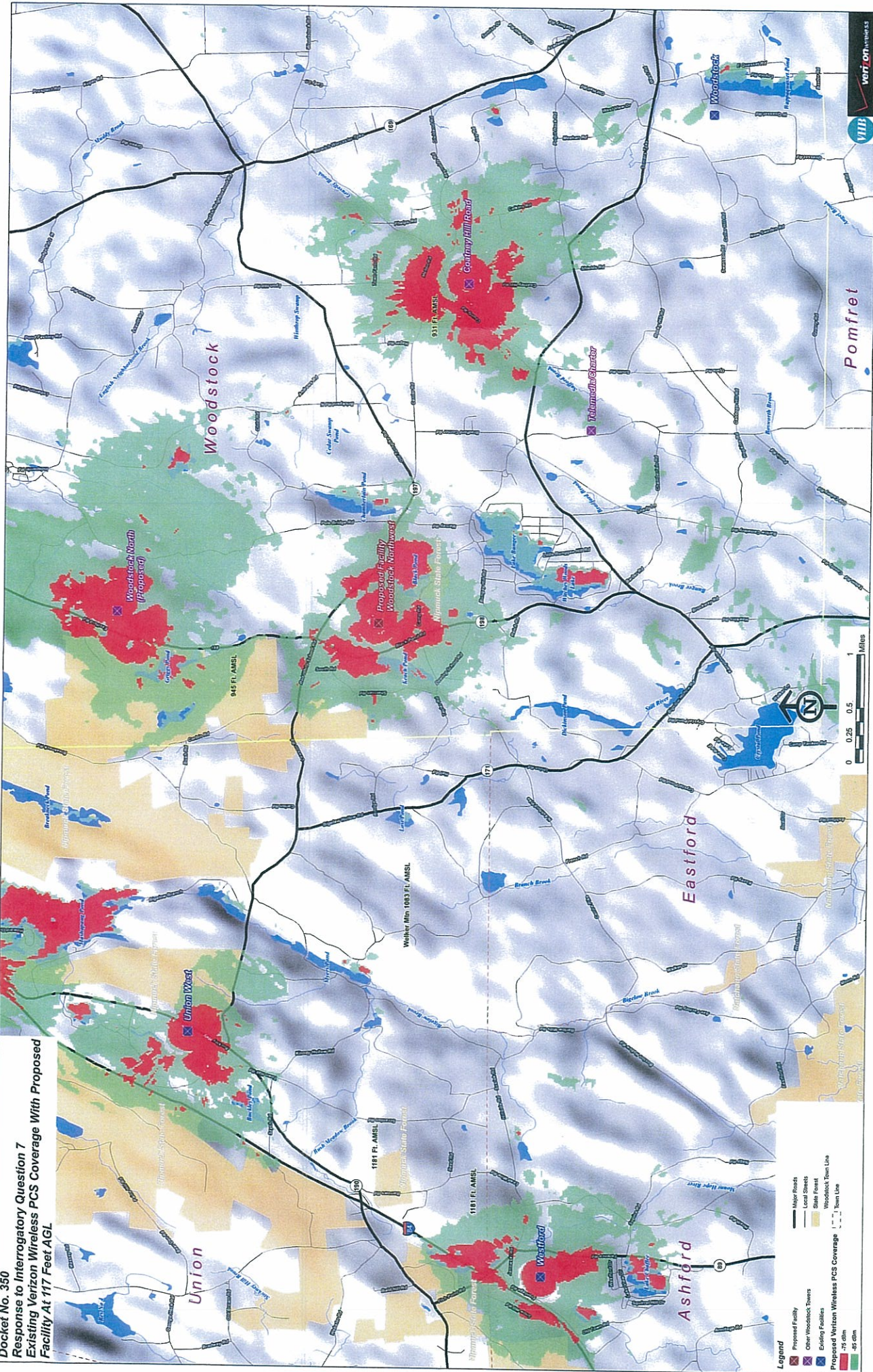
Docket No. 350
Response to Interrogatory Question 7
Existing Verizon Wireless Cellular Coverage With
Proposed Facility At 117 Feet AGL



Docket No. 350
 Response to Interrogatory Question 7
 Existing Verizon Wireless PCS Coverage With Proposed
 Facility At 127 Feet AGL



Docket No. 350
Response to Interrogatory Question 7
Existing Verizon Wireless PCS Coverage With Proposed
Facility At 117 Feet AGL



- Legend**
- Proposed Facility
 - Other Woodstock Towers
 - Existing Facilities
 - Proposed Verizon Wireless PCS Coverage
 - 75 dBm
 - 45 dBm
 - Major Roads
 - Local Streets
 - State Road
 - Woodstock Town Line
 - 175' Town Line

Verizon Wireless

0 0.25 0.5 1 Miles

North Arrow

117' AGL

Verizon Wireless