

STATE OF CONNECTICUT
CONNECTICUT SITING COUNCIL

IN RE: :
: :
APPLICATION OF CELLCO PARTNERSHIP : DOCKET NO. 361
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 :
NORFOLK ROAD, WINCHESTER, :
CONNECTICUT : AUGUST 7, 2008

**LATE-FILED EXHIBIT OF
CELLCO PARTNERSHIP D/B/A VERIZON WIRELESS**

Cellco Partnership d/b/a Verizon Wireless (“Cellco”) hereby provides the Connecticut Siting Council (“Council”) with the late-filed exhibit requested at the July 7, 2008 hearing in connection with the above-referenced Application.

On April 10, 2008, Cellco filed an application (“Application”) with the Council for a Certificate of Environmental Capability and Public Need (“Certificate”) to construct a 150-foot tower and related wireless telecommunications facility off Norfolk Road (“Property”) in Winchester, Connecticut (“Winchester Facility”). The proposed Winchester Facility would provide for much needed coverage along the heavily-traveled Route 44 and Route 183, as well as local roads in the northerly portion of Winchester.

The Council conducted an evidentiary and public hearing on the Application on July 7, 2008. At the public hearing, two property owners located on Colebrook Road raised concerns regarding the visibility of the proposed tower. In response to those concerns, the Council asked Cellco to consider moving the proposed facility to the west in an effort to reduce the visibility of the Winchester Facility from these residences. Because alternative tower locations further to the

west had not been evaluated, Cellco was unable to provide the Council with a complete analysis of the feasibility of relocating the proposed facility. Accordingly, the Council requested that Cellco provide a late-filed exhibit evaluating potential alternative locations for the Winchester Facility on the Property.

Based on a review of topographic maps, Cellco initially identified three potential alternative locations to the west of the proposed Winchester Facility. *See* Memorandum from Dean Gustafson at Vanasse Hangen Brustlin, Inc. (“VHB”) dated August 6, 2008 (“Gustafson Memo”) (attached at Tab 1). After investigating and evaluating these locations in the field, however, one location (identified as Alternative 3 on the map attached to the Gustafson Memo) was determined to be unsuitable due to steep grades and the presence of a seasonal, intermittent watercourse. The Alternative 3 site was rejected for these reasons. *See* Gustafson Memo. The two remaining alternative locations considered – one 300 feet to the west (“Alternative 1”) and one 500 feet to the west (“Alternative 2”) of the proposed Winchester Facility – were found to be suitable from a civil engineering perspective and would not impact wetlands or watercourses on the Property.

Next, the Alternative 1 and Alternative 2 sites were evaluated to determine if they would meet Cellco’s coverage objectives in the Winchester area. Following this evaluation, the Alternative 2 site was eliminated as a potential location because a tower, greater than 200 feet in height, would be required for Cellco to satisfy its coverage objective in the area. Once the Alternative 2 location was eliminated, Cellco’s radio frequency engineers evaluated coverage from the Alternative 1 location at various heights. Cellco determined that it could achieve the best coverage from a facility at the Alternative 1 location at a height of 180 feet. However, even with a facility at 180 feet at the Alternative 1 location, Cellco would still experience gaps in PCS

coverage on both Route 44 and Route 183, totaling approximately one quarter mile. *See* Propagation Maps attached at Tab 2. Cellco then evaluated the possibility of increasing the height of the tower at the Alternative 1 location to 200 feet in an attempt to fill these remaining PCS coverage gaps. Due to the severe topography in the area, even at 200 feet, these gaps in coverage would remain.¹ Cellco would not be able to achieve comparable coverage or fulfill its coverage objectives, therefore, in the Winchester area with a facility at the Alternative 1 location.

Nevertheless, Cellco evaluated the expected visibility of a 180-foot tower at the Alternative 1 location. *See* Memorandum from Michael Koperwhats at VHB dated July 30, 2008 (“Koperwhats Memo”) (attached at Tab 3). This analysis determined that a 180-foot tower at the Alternative 1 location would be visible from 37 acres in the study area – an increase in four (4) acres from the facility location proposed in the Docket No. 361 application. Koperwhats Memo at 2. Moreover, a 180-foot tall tower at the Alternative 1 location would still be visible from those residential properties along Colebrook Road and would, in fact, appear significantly taller above the surrounding tree canopy than the proposed Winchester tower location from these same residences. *Id.* Thus, relocating the Winchester Facility to the Alternative 1 location would not address the concerns raised by the two property owners on Colebrook Road and would actually increase the overall visibility of the Winchester Facility.

¹ Cellco determined that it would need a tower height of 225 feet at the Alternative 1 location to fill the remaining PCS coverage gaps along Routes 44 and 183.

In sum, relocating the Winchester Facility to the west would prevent Cellco from satisfying its coverage objectives in the area, would not address the visibility concerns raised at the hearing and would increase the overall visibility of the facility.

Respectfully submitted,
CELLCO PARTNERSHIP d/b/a VERIZON
WIRELESS

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Memorandum

To: Ms. Alexandria Carter
Verizon Wireless
99 East River Drive
East Hartford, CT 06108

Date: August 6, 2008

Project No.: 41240.29

From: Dean Gustafson
Professional Soil Scientist

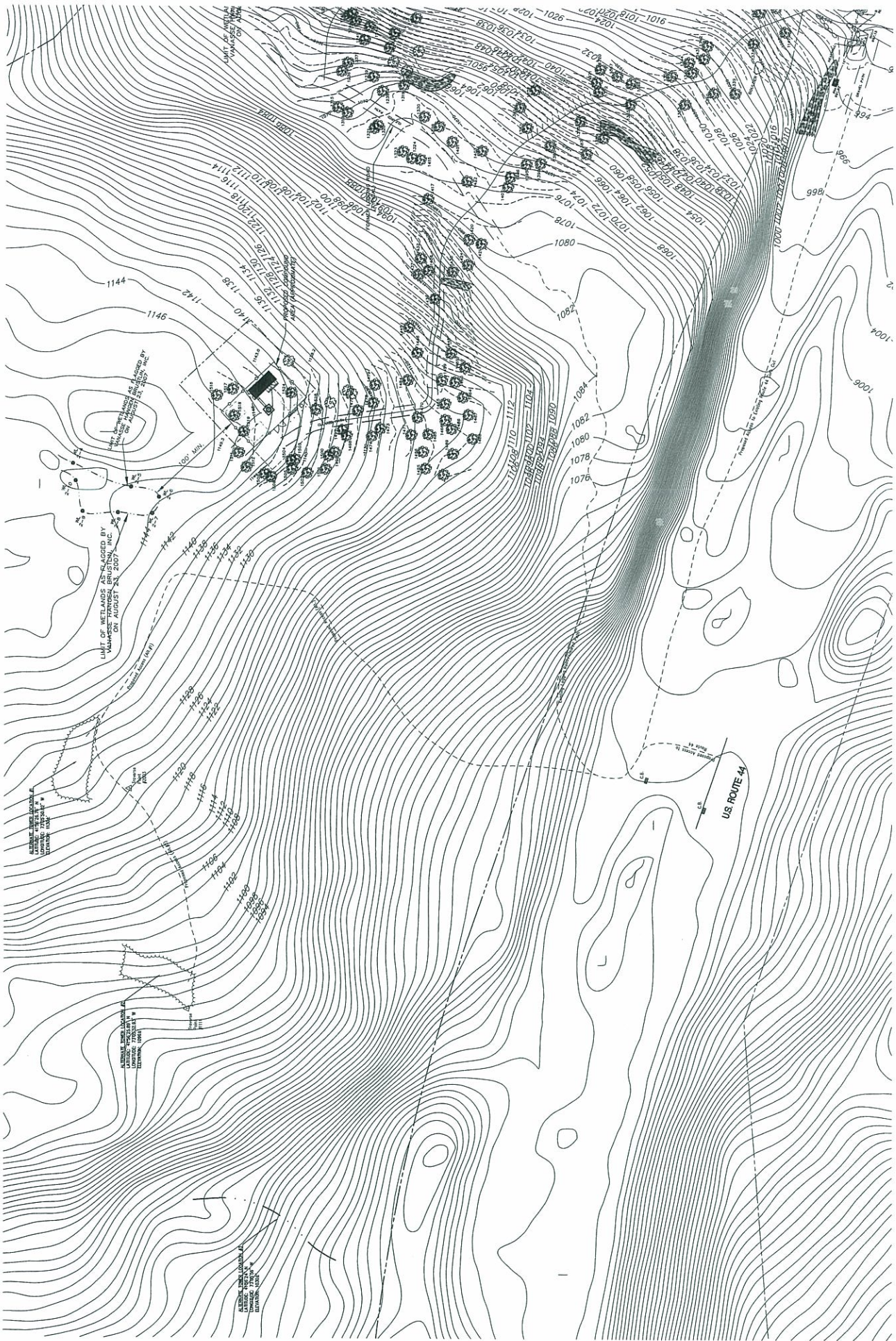
Re: Alternate Site Locations
Preliminary Wetland Inspection
Winchester PCS
Colebrook Road (Route 44)
Winchester, Connecticut

Cellco Partnership (dba Verizon Wireless) currently has a pending application before the Connecticut Siting Council (Docket No. 361) for a Certificate of Environmental Compatibility and Public Need for the construction of a wireless telecommunications facility ("Facility") to be located on an approximate 63-acre property off Route 44 in the Town of Winchester, Connecticut. Comments were received by property owners along State Route 183 during the July 8, 2008 Connecticut Siting Council hearing regarding the potential visibility associated with the proposed Facility. As a result, the Council requested that alternative locations of the Facility be explored to see if it would be feasible to move the proposed Facility further west away from the properties along Route 183.

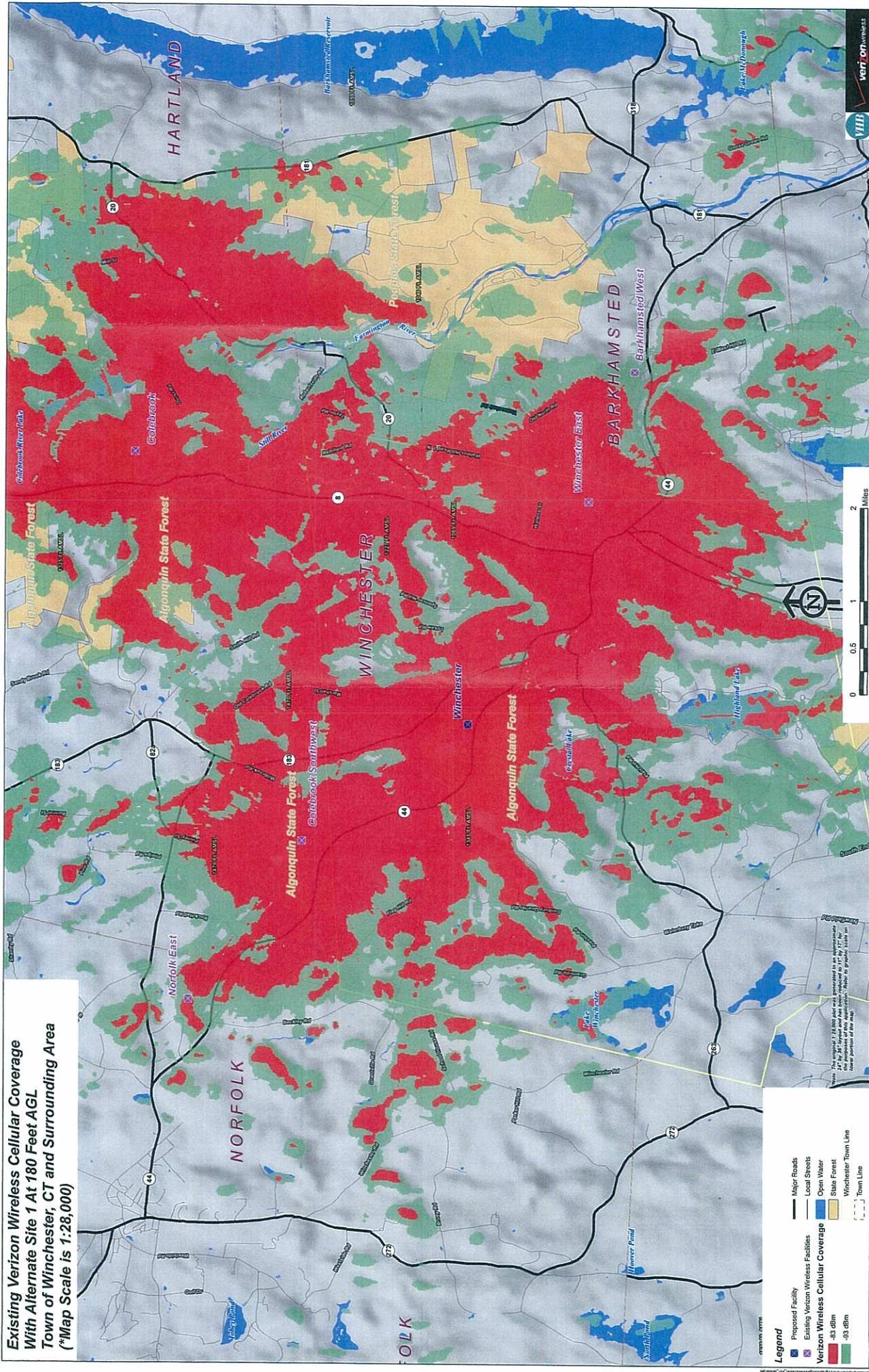
Three potential alternate Facility locations were inspected on July 21, 2008 by Dean Gustafson, Professional Soil Scientist with Vanasse Hangen Brustlin, Inc. (VHB) to determine if these alternate locations resulted in a potential impact to wetland or watercourse resources. Enclosed is an alternate candidates field sketch map, dated 7/21/08, depicting the three alternate tower locations with potential access routes.

No wetlands or watercourses were identified at or near the proposed alternate sites #1 or #2 or access route located west of the proposed Facility. The proposed access to these alternate sites would come within approximately 80 feet of a previously mapped wetland (located north of the proposed Facility), although this potential activity would not be considered an adverse impact to the nearby wetland. Therefore, alternate sites #1 and #2 would not result in an adverse impact to wetlands or watercourses. Alternate site #3, located down a steep hillside further west of site #2, appears to contain a seasonal intermittent watercourse feature that flows directly through the middle of this alternate site. Due to the steep topography surrounding alternate site #3, there is no alternative to relocate nearby in order to avoid impacting the intermittent watercourse. Therefore, alternate site #3 is not considered to be a viable candidate with respect to wetland/watercourse resource impacts.

Enclosure



**Existing Verizon Wireless Cellular Coverage
With Alternate Site 1 At 180 Feet AGL
Town of Winchester, CT and Surrounding Area
(*Map Scale is 1:28,000)**



- Legend**
- Proposed Facility
 - Existing Verizon Wireless Facilities
 - Verizon Wireless Cellular Coverage
 - 83 dBm
 - 93 dBm
 - Major Roads
 - Local Streets
 - Open Water
 - State Forest
 - Winchester Town Line

Verizon Wireless

0 0.5 1 2 Miles

Verizon Wireless

This map was prepared by a contractor for Verizon Wireless. The original 1:75,000 scale map was prepared by a contractor for Verizon Wireless. The 1:28,000 scale map was prepared by a contractor for Verizon Wireless. The 1:28,000 scale map was prepared by a contractor for Verizon Wireless.



Vanasse Hangen Brustlin, Inc.

To: Alexandria Carter
Verizon Wireless
99 East River Drive
East Hartford, CT 06108

Date: July 30, 2008

Project No.: 41240.29

From: Michael A. Koperwhats

Re: Comparative Viewshed Analysis
Proposed Verizon Wireless
Telecommunications Facility
Route 44
Winchester, Connecticut

As you are aware Cellco Partnership (dba Verizon Wireless) has a pending application before the Connecticut Siting Council (Docket No. 361) for a Certificate of Environmental Compatibility and Public Need for the construction of a wireless telecommunications facility ("Facility") to be located on an approximate 63-acre property off Route 44 in the Town of Winchester, Connecticut. The proposed Facility includes the installation of a 150-foot tall monopole with associated ground equipment to be located at its base. Both the proposed monopole and ground equipment would be situated within a fence-enclosed compound. The proposed project area is located at approximately 1,145 feet Above Mean Sea Level (AMSL).

Based on comments made by two nearby property owners during the July 8, 2008 Connecticut Siting Council hearing regarding the potential visibility associated with the proposed Facility, Verizon Wireless investigated the potential visibility of an alternate site location on the 63-acre host property. The alternate site is located approximately 400 feet to the northwest of the currently proposed Facility and stands at approximately 1,130 feet AMSL. A 180-foot tall monopole structure would be required at the alternate site location.

Vanasse Hangen Brustlin, Inc. (VHB) was asked by Verizon Wireless to evaluate the likely year-round visibility of a 180-foot monopole at the alternate location. In order to identify areas of potential year-round visibility associated with the alternate location, VHB employed a computer-based predictive model utilizing our standard methodology as specified in our *Visual Resource Evaluation Report (February 2008)* which was submitted as part of the application for the proposed Facility. Areas of potential visibility are determined based on various information entered into the computer model, including Facility height, its ground elevation, the surrounding topography and existing vegetation. Data incorporated into the predictive model includes a digital elevation model (DEM) and a digital forest layer for the Study Area. The DEM was derived from the United States Geological Survey (USGS) National Elevation Dataset (NED), a seamless, publicly available elevation dataset with an approximate 30-meter resolution. The forest layer was derived through on-screen digitizing in ArcView® GIS from 2006 digital orthophotos with a 1-foot pixel resolution.

Once the areas of likely year-round visibility for the alternate site were calculated, the results were compared to our original analysis for the proposed Facility which includes a 150-foot tall monopole.

Based on this evaluation, areas from where a 180-foot tall monopole located at the alternate site location may be visible above the tree canopy comprise approximately 37 acres within the 8,042-acre Study Area; year-round visibility associated with the Facility, as proposed in Docket No. 361, is expected to include roughly 33 acres. As depicted on the viewshed map (attached), the areas of likely year-round visibility are similar for the two locations. This includes select portions of the Route 44 traffic corridor within the immediate vicinity of the host property as well as a small area of visibility west of Colebrook Road (Route 183) located roughly 0.50 mile to the east/southeast of the two sites. In the conclusions of our February 2008 *Visual Resource Evaluation Report* VHB estimates that at least partial views of the proposed Facility may be achieved from approximately five residential properties located off Colebrook Road. Three of these residences are located roughly 0.50-mile to the east/southeast of the two sites while the remaining two residences are located nearly two miles away. Our analysis indicates that these five properties would also have views of the monopole should the alternate site be developed. However, given the location of the two sites and their respective ground elevations, it is our opinion that a 180-foot tall structure at the alternate site would stand significantly taller above the surrounding tree canopy in comparison to the proposed Facility from these locations.

Comparative Viewshed Map Proposed Verizon Wireless Telecommunications Facility And Potential Alternate Site Colebrook Road (Route 44) Winchester, Connecticut

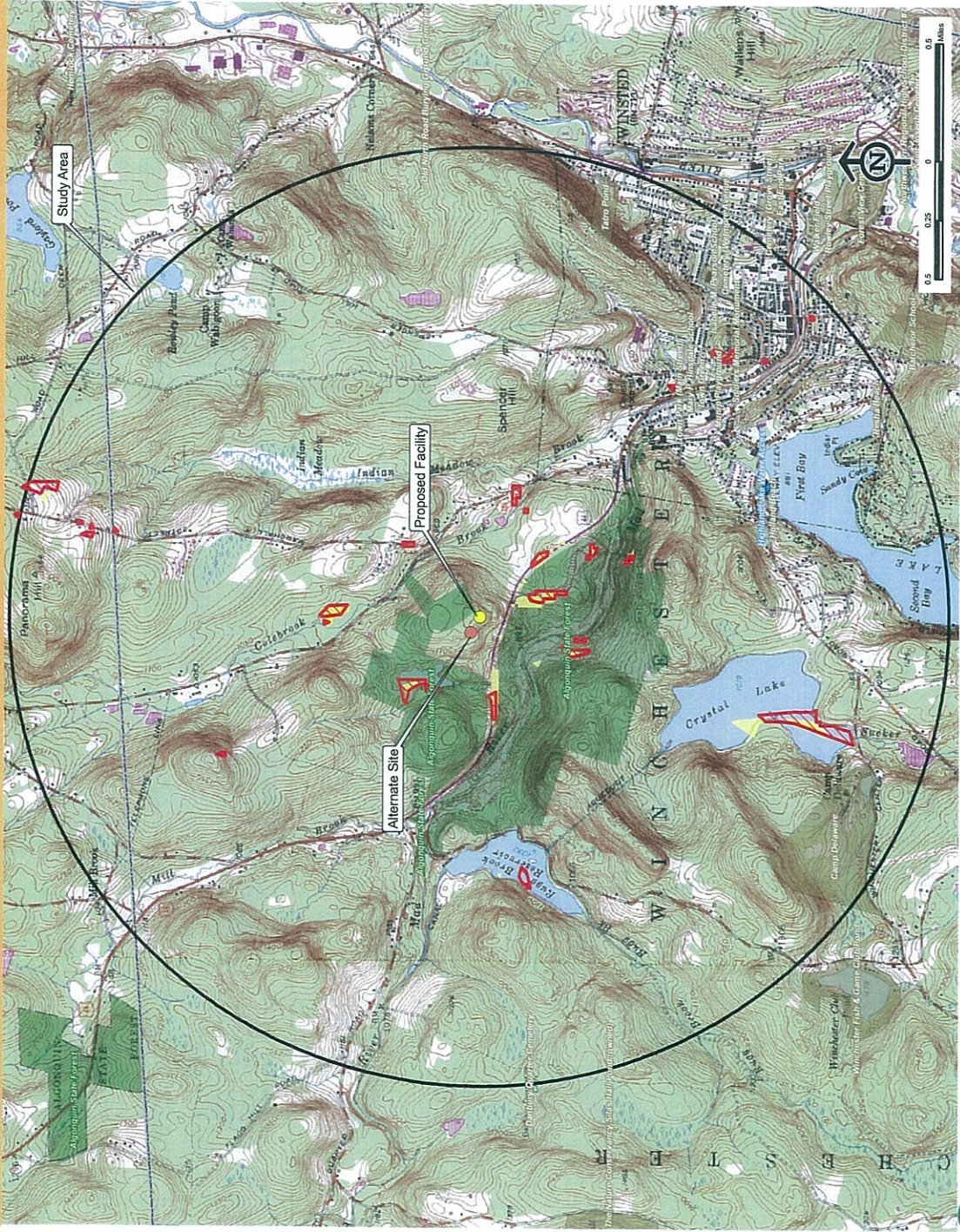
NOTE:

- Proposed Facility height is 150 feet AGL; Potential Alternate height is 180 feet AGL
- Existing tree canopy height estimated at 65 feet.
- Study Area consists of a two-mile radius surrounding the proposed Facility and includes 8,042 acres of land.

DATA SOURCES:

- Digital elevation model (DEM) derived from USGS National Elevation Dataset (NED) with a resolution of one arc-second (approximately 30 meters) produced by the USGS, 1925 - 1999
- Forest areas derived from 2006 digital orthophotos with 1-foot pixel resolution; digitized by VHB, 2007
- Base map comprised of Winsted (1984) and Norfolk (1969) USGS Quadrangle Maps
- Protected properties data layer provided CTDEP, May, 2007
- Results of Alternative Site analysis have not been confirmed by a balloon float.

Map Compiled July, 2008



Legend

Proposed Monopole (Includes select areas of visibility within approximately 500 feet around facility)	Protected Properties (CT DEP)
Potential Alternate Site (Includes select areas of visibility within approximately 500 feet around facility)	State Forest
Year-round Visibility - Proposed Facility (Approximately 33 Acres)	State Park
Year-round Visibility - Potential Alternate Site (Approximately 37 Acres)	DEP Owned Waterbody
Cemetery	State Park Scenic Reserve
Preservation	Historic Preserve
Conservation	Natural Area Preserve
Existing Preserved Open Space	Fish Hatchery
Recreation	Flood Control
General Recreation	Other
School	State Park Trail
Uncategorized	Water Access
	Wildlife Area
	Wildlife Sanctuary
	DEP Boat Launches
	Scenic Road (State and Local)
	Town Line
	Protected Properties (Federal)