



# STATE OF CONNECTICUT

## CONNECTICUT SITING COUNCIL

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*Daniel F. Caruso*  
Chairman

February 9, 2009

TO: Parties and Intervenors

FROM: S. Derek Phelps, Executive Director

RE: **DOCKET NO. 360** - 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 188 Route 7 South, Falls Village (Canaan), Connecticut.

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As stated at the hearing on July 31, 2008, after the Council issues its draft findings of fact, parties and intervenors may identify errors or inconsistencies between the Council's draft findings of fact and the record; however, no new information, evidence, argument, or reply briefs will be considered by the Council.

In addition the Council has drafted a document entitled "Conclusions of Law" which is also included for review.

Parties and Intervenors may file written comments with the Connecticut Siting Council on the Draft Findings of Fact and Conclusions of Law issued on this docket by February 24, 2009.

SDP/CML/cm

Enclosure



**DOCKET NO. 360** - Verizon 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 188 Route 7 South, Falls Village (Canaan), }  
Connecticut.

Connecticut

Siting

Council

January 28, 2009

## **DRAFT Findings of Fact**

### **Introduction**

1. On March 28, 2008, Cellco Partnership d/b/a Verizon Wireless (Verizon), in accordance with provisions of Connecticut General Statutes (CGS) § 16-50g through 16-50aa, applied to the Connecticut Siting Council (Council) for the construction, operation, and maintenance of a wireless telecommunications facility at 188 Route 7 South in the Falls Village section of Canaan, Connecticut. (Verizon 1, p. 1)
2. Verizon is a Delaware Partnership with an administrative office in Connecticut. The Federal Communications Commission (FCC) has licensed Verizon to operate a wireless telecommunications system in the State of Connecticut. Operation of the wireless telecommunications systems and related activities are Verizon's sole business in the State of Connecticut. (Verizon 1, p. 4)
3. Verizon is licensed by the FCC to provide personal communications service (PCS) to Litchfield County, Connecticut. On May 30, 2008, Verizon acquired the Alltel Communication's cellular license for Litchfield County, Connecticut. Verizon has also acquired a license to provide service in the 700 MHz frequency band, which will be used to provide 4<sup>th</sup> Generation (4G) wireless service. (Verizon 1, p. 7, Tab 6; Verizon 6, Verizon 7, p. 1)
4. The party in this proceeding is the applicant. The intervenor is Dina Jaeger. (Transcript 1 – 3:00 p.m. [Tr. 1], p. 6)
5. The purpose of the proposed facility is to provide service along Route 7 and portions of Route 112 and Route 126, as well as local roads in the southwest portion of the Town of Canaan. (Verizon 1, pp. 1, 2)
6. Pursuant to CGS § 16-50m, the Council, after giving due notice thereof, held a public hearing on July 1, 2008, beginning at 3:00 p.m. and continuing at 7:00 p.m. at the Lee H. Kellogg School, 47 Main Street, Falls Village, Connecticut. (Tr. 1, p. 3; Transcript 2 – 7:10 p.m. [Tr. 2], p. 3)
7. The public hearing was continued on July 31, 2008 beginning at 11:00 a.m. at the office of the Connecticut Siting Council, 10 Franklin Square, New Britain, Connecticut. (Transcript 3 – 11:10 a.m. [Tr. 3], p. 3)
8. The Council and its staff conducted an inspection of the proposed site on July 1, 2008, beginning at 2:00 p.m. Verizon flew a red balloon at the site to simulate the height of the proposed tower. Weather conditions were very good with no winds until approximately 12:00 p.m., after which the wind increased to between three and seven miles an hour. The balloon was tethered at 157 feet. The balloon was aloft from 7:15 a.m. to 5:00 p.m. (Council's Hearing Notice dated May 30, 2008, Tr. 1, pp. 50-51)
9. On June 11, 2008, Verizon installed a sign in the front of the property of the proposed site, adjacent to Route 7, which notified the public of the proposed project and the July 1, 2008 public hearing. (Tr. 1, p. 51)

10. Pursuant to CGS § 16-501 (b), public notice of the application was published in the Register Citizen on March 24 and 25, 2008. (Verizon 1, p. 5)
11. Pursuant to CGS § 16-501(b), notice of the application was provided to all abutting property owners by certified mail. All adjacent landowners signed return receipts upon receipt of the notice. (Verizon 1, p. 5, Tab 5; Verizon 6, R. 1)
12. Pursuant to CGS § 16-501 (b), Verizon provided notice to all federal, state and local officials and agencies listed therein. (Verizon 1, p. 5, Tab 3)

#### United States Department of the Interior Comments

13. The United States Department of the Interior, National Park Service submitted a letter to the Council dated April 18, 2008. The National Park Service found that the proposed tower would not result in an adverse environmental impact on the Appalachian National Scenic Trail, provided that mitigating measures be incorporated as recommended by representatives of the Appalachian Mountain Club, the Appalachian Trail Conservancy and the National Park Service:
  - a. The Applicant purchases, delivers and plants approximately 25 white pine trees, with a minimum height of five feet, along the Appalachian Trail near Warren Turnpike as directed by the National Park Service representative.
  - b. The Applicant constructs a monopine, as proposed in the application.  
(Verizon 4, Letter from US Department of the Interior)
14. Verizon would comply with the recommendations of the Appalachian Mountain Club, the Appalachian Trail Conservancy and the National Park Service. (Verizon 5, Letter from Verizon)

#### State Agency Comments

15. Pursuant to CGS § 16-50j (h), on May 30, 2008, the following State agencies were solicited by the Council to submit written comments regarding the proposed facility; Department of Environmental Protection (DEP), Department of Public Health (DPH), Council on Environmental Quality (CEQ), Department of Public Utility Control (DPUC), Office of Policy and Management (OPM), Department of Economic and Community Development (DECD), and the Department of Transportation (DOT). On August 1, 2008, the previously mentioned state agencies as well as the Department of Agriculture (DOA) were solicited by the Council to submit written comments regarding the proposed facility. (Record)
16. The Council received responses from the DOT on June 24, 2008. DOT comments stated that any work within the Route 7 right-of-way would require an encroachment permit pursuant to Regulations of Connecticut State Agencies, § 13b-17-1. (record)
17. The following agencies did not respond with comment on the application: DEP, CEQ, DPUC, OPM, DPH, DOA, and DECD. (Record)

#### Municipal Consultation

18. On October 23, 2007, Verizon notified the Town of Canaan and met with First Selectman Patricia Allyn Mechare, providing copies of technical information regarding the proposed project. (Verizon 1, p. 19)
19. Verizon provided copies of the technical information regarding the proposed project to the Town of Salisbury First Selectman, Curtis G. Rand. (Verizon 1, p. 19)

20. In a letter dated April 22, 2008, the Town of Canaan Planning & Zoning Commission (P&Z) provided comments regarding the proposed facility. The P&Z stated that:
  - a. Any new tower or antenna that is regulated and approved by the Council is permitted by right. The tower setbacks for the proposed tower would be greater than 200 feet from each property boundary. In addition, the town's Zoning Regulations do not contain siting preferences for telecommunication facilities.
  - b. The town's Plan of Conservation and Development does not specifically reference telecommunications towers as a land use consistent or inconsistent with the general planning or conservation policies of the town. The Plan of Conservation and Development does recognize the need for a new firehouse to enhance public safety. The proposed telecommunications facility would further enhance public safety for the town.
  - c. Verizon indicated that the proposed facility would have no significant environmental impacts. (Council Admin. Notice, Municipal comments, 4)
21. On April 28, 2008, the Town of Canaan Board of Selectmen (Board) sent a letter to the Council regarding the proposed project. The letter expressed that the Board strongly supported Verizon's application due to the proposed facility's minimum impact on the surrounding area. The proposed facility would be in accordance with the general objectives of the town's Plan of Conservation and Development. The Board stated that the proposed facility would begin to close the gaps in wireless service where it is essential, along the Route 7 corridor. Verizon would provide space for the Falls Village Volunteer Fire Department (FVFD) to locate on the tower, which the Board considers a benefit to public safety for the area. (Council Admin. Notice, Municipal comments, 1)
22. In a letter received by the Council on May 30, 2008, the town P&Z recommended the proposed telecommunications tower be constructed as a monopole rather than an artificial tree based on a consensus that the artificial tree tower would not keep with the rural character and integrity of the town. (Council Admin. Notice, Municipal comments, 2)
23. The Town of Canaan Inland Wetlands/Conservation Commission (Commission) submitted comments to the Council in a letter dated June 5, 2008. The Commission found that there would be no intrusion upon any wetland or watercourse due to the construction or operation of the proposed project. The Commission is concerned with environmental impacts to the Housatonic Valley Regional High School, located approximately ½-mile from the proposed site. The Commission specifically expressed reservations regarding the possibility of attendees and staff of the school being exposed to "low-intensity, ultra-high frequency radiation." (Council Admin. Notice, Municipal comments, 3)
24. Town and FVFD antennas would be installed at the top of the tower and extend upward. The town and the FVFD have not yet provided information regarding their antenna needs to Verizon. (Verizon 1, p. 2; Verizon 6, R. 3)

#### General Public Need for Service

25. In 1996, the United States Congress recognized a nationwide need for high quality wireless telecommunications services, including cellular telephone service. Through the Federal Telecommunications Act of 1996, Congress seeks to promote competition, encourage technical innovations, and foster lower prices for telecommunications services. (Council Administrative Notice Item No. 7)
26. In issuing cellular licenses, the Federal government has preempted the determination of public need for cellular service by the states, and has established design standards to ensure technical integrity and nationwide compatibility among all systems. (Council Administrative Notice Item No. 7)

27. The Telecommunications Act of 1996 prohibits local and state entities from discriminating among providers of functionally equivalent services. (Council Administrative Notice Item No. 7)
28. The Telecommunications Act of 1996, a Federal law passed by the United States Congress, prohibits any state or local entity 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. This Act also blocks the Council from prohibiting or acting with the effect of prohibiting the provision of personal wireless service. (Council Administrative Notice Item No. 7)
29. In an effort to ensure the benefits of wireless technologies to all Americans, Congress enacted the Wireless Communications and Public Safety Act of 1999 (the 911 Act). The purpose of this legislation was to promote public safety through the deployment of a seamless, nationwide emergency communications infrastructure that includes wireless communications services. (Verizon 6, R. 5)
30. Through the enhanced 911 Act of 2004 (E-911 Act), the FCC requires carriers to provide public safety facilities with information including the latitude and longitude of the caller. The development of new technologies must support E-911 services. (Verizon 6, R. 5)
31. Verizon has incorporated the E-911 requirements into all existing Verizon facilities in Connecticut and the appropriate equipment would be installed at the proposed facility. (Verizon 6, R. 5)

#### Site Selection

32. Verizon established a search ring for the target service area in May of 2006. The search ring consists of an oval area immediately west of Route 7 near the intersection with Six Rod Road in the Falls Village section of Canaan. (Verizon 1, Tab 9)
33. In the fall of 2006, Verizon representatives contacted First Selectman Mechare to discuss the availability of town-owned property for the construction of a telecommunications facility. First Selectman Mechare requested that Verizon investigate the potential use of the town-owned parcel immediately south of the FVFD, which the Canaan Highway Department uses for truck and material storage. Verizon's investigation of the Highway Department parcel resulted in rejection of that site because elevation declines to the south and west and would, therefore, require a taller tower. (Verizon 1, Tab 9)
34. Verizon met with the First Selectman again regarding the use of the FVFD property and negotiated a lease for the property. (Verizon 1, Tab 9)
35. There is one existing tower located within two-miles of the search area. This facility is a monopine located at 477 Route 7 in Sharon. Verizon has antennas located at the 130-foot level of this 130-foot tower. (Verizon 1, Tab 9)
36. The Connecticut Light and Power Company (CL&P) poles along Beebe Hill Road are approximately 85 feet tall and the nearest are located approximately 2,000 feet north of the proposed site. Although the CL&P poles are outside of the designated search ring, installation of Verizon antennas at a height equivalent to the height and ground elevation of the proposed tower would likely provide comparable coverage to the proposed site. (Verizon 6, R. 6, 7, 8)

37. The potential use of the CL&P poles for wireless telecommunications antennas was rejected because:
- Access to some utility structures may be difficult due to topography or remoteness of the location.
  - Carriers may need to obtain certain legal/property rights from the underlying landowner for access to the structure and installation of equipment at the base of the structure.
  - CL&P may impose access restrictions on carriers regarding the use of these structures, including limiting the ability to access the structure for construction and/or maintenance of its cell site.
  - CL&P's access restrictions would affect municipal and emergency service providers, which require access to their antennas and equipment on a continuous basis.  
(Verizon 6, R. 6)
38. Microcells and repeaters are not viable technological alternatives for providing coverage to the identified coverage gap due to the size of the existing coverage gaps along Route 7, and portions of Route 126 and Route 112. (Verizon 6, R. 9)

#### Site Description

39. The proposed site is located on a 7.15-acre parcel at 188 Route 7 South in Falls Village. The town-owned property is the future home of the FVFD firehouse. Figure 1 of this document is an aerial photograph depicting the location of the proposed site. Figure 2 of this document is a site plan for the proposed site. (Verizon 1, p. 2)
40. The parcel is zoned Residential/Agricultural. The proposed site is within the Housatonic River Overlay Zone-Outer Corridor. The Canaan Zoning Regulations do not contain preferences for siting telecommunications facilities. Nor do the town's Telecommunications Facilities regulations establish specific setbacks for the proposed tower or related equipment shelter specifically for towers. (Verizon 1, pp. 2, 17, 18)
41. Section 6.6 of the Town's Zoning Regulations allows "any new tower or antenna regulated by and approved by the Connecticut Siting Council." (Verizon 1, p. 17; Zoning Regulations)
42. The proposed tower would be located in the center portion of the property at an elevation of approximately 655 feet above mean sea level. The site is wooded with an area cleared for a fire department building and associated parking areas. (Verizon 1, Tab 10)
43. The proposed facility would include a 150-foot monopole, disguised as a pine tree, within a 100-foot by 100-foot leased area. The top of the simulated branches would extend to 157 feet above ground level (agl). The proposed tower would accommodate the antennas of four carriers as well as town and FVFD antennas. Verizon would construct the tower in accordance with the American National Standards Institute TIA/EIA-222-F "Structural Standards for Steel Antenna Towers and Antenna Support Structures." (Verizon 1, p. 2, 10, Tab 1; Verizon 6, R. 11)
44. The diameter at the base of the proposed tower would range from 50 to 72 inches, tapering to a diameter of 24 inches at the top of the tower. Branches on the proposed faux pine tree would start at approximately 85 feet agl. The bottom branches would total approximately 45 feet in width and taper to approximately 5 feet in width at the top of the monopole. (Verizon 1, Tab 1; Tr. 1, p. 48)
45. Verizon would install six PCS antennas and six cellular antennas with a centerline height of 150 feet agl. The top of Verizon's antennas would be approximately 153 feet agl. (Verizon 1, Tab 1, Tab 8; Verizon 7, p. 1)

46. A 50-foot by 75-foot compound, enclosed by an eight-foot tall security fence, would be established at the base of the tower. Verizon would install equipment within a 12-foot by 30-foot shelter within the compound. Verizon proposes to install a diesel-fueled generator within a segregated generator room within the shelter for use during power outages and for maintenance. Refer to Figure 2 of this document. (Verizon 1, p. 3, Tab 1)
47. Construction of the access drive would include 20 cubic yards of cut and 75 cubic yards of fill and the compound would require 50 cubic yards of cut and 350 cubic yards of fill. Construction of the proposed site would result in a total of 355 cubic yards of fill. (Verizon 6, R. 12)
48. Rather than bringing fill in for the proposed site, Verizon would be willing to investigate the potential to increase the amount of cut at the site and move it to the area that would need fill. Increasing the amount of cut at the proposed site may require rock removal and an increased removal of trees. (Tr. 3, pp. 151-152)
49. Verizon would apply for an encroachment permit with the DOT for access to the proposed site from Route 7. (Tr. 1, p. 54)
50. Access to the proposed site would extend from Route 7 over a new gravel driveway for a distance of approximately 308 feet. Following construction of the FVFD firehouse, the same access road to the site would extend through the firehouse parking area. (Verizon 1, p. 2, Tab 1)
51. Utilities would be installed underground from Route 7 to the proposed site along the access drive. (Verizon 1, Tab 1)
52. Construction of the proposed site is not expected to require blasting. (Verizon 6, R. 13)
53. The proposed tower would be approximately 90 feet northwest of the nearest corner of the future FVFD building. Verizon could design a yield point into the proposed tower at approximately 54 feet agl, if ordered by the Council. (Verizon 6, R. 14, 15)
54. The tower setback radius would remain within the host property boundaries. Distance from the proposed tower to all property lines exceeds 157 feet. (Verizon 1, Tab 1)
55. There are six residences within a 1,000-foot radius of the proposed site. The nearest residence, owned by Ralph and Dorothy Marshall, is located at 202 Route 7 South, approximately 635 feet to south of the proposed site. (Verizon 1, p. 13; Verizon 6, R. 16)
56. Intervenor Dina Jaeger's residence is located approximately 1,290 feet east of the proposed tower. (Verizon 1, Tab 1)
57. Land use surrounding the proposed site consists of undeveloped woodlands and agricultural land to the west; agricultural and low-density residential areas to the east; the Town Highway Department property and low-density residential areas to the south; and commercial and light industrial uses to the north. (Verizon 1, Tab 1)



58. The estimated construction cost of the proposed facility, including Verizon's antennas and radio equipment, is:

Cell site radio equipment	\$450,000
Tower, coax and antenna	150,000
Power systems	20,000
Equipment building	50,000
Miscellaneous	95,000
<b>Total</b>	<b>765,000</b>

(Verizon 1, p. 21)

### Environmental Considerations

59. According to the State Historic Preservation Office, the proposed project would have no adverse effect on cultural resources eligible for or listed on the National Register of Historic Places with the condition that:
- Verizon continue coordination with the National Park Service regarding views of the tower from portions of the Appalachian Trail.
  - If antennas on the tower are not in use for six consecutive months, antennas and equipment shall be removed by the facility owner within 90 days of such six-month period. Upon removal, the property shall be restored to its original state.  
(Verizon 1, Tab 11)
60. There are no known federally listed or proposed, threatened or endangered species or critical habitat that occur at the host property. (Verizon 1, p. 14)
61. Federal or State Endangered or Threatened or State Special Concern species that are known to occur outside of the host property but within a 984 foot (300 meter) radius of the proposed site include the Endangered plant species *Ribes triste* (Swamp Red Currant), the Threatened plant species *Petasites frigidus var. palmatus* (Sweet Coltsfoot) and the *Passerculus sandwichensis* (Savannah Sparrow) a state Special Concern bird species. (Jaeger 15)
62. The State-listed Special Concern Species *Passerculus sandwichensis* (savannah sparrow) has been known to occur in this portion of Canaan; however, the proposed site is unlikely to affect the bird species due to the primarily wooded vegetation on the property. The savannah sparrow uses grassland areas. The DEP recommended the minimization of tower lighting and lighting of equipment shelters and metering areas to the greatest extent possible. (Verizon 1, Tab 11)
63. The State-listed Endangered species *Lota Lota* (burbot) is a fish species that has been recorded at the Hollenbeck River, which is greater than two miles from the proposed site. The proposed facility would not affect this endangered species. (Verizon 1, Tab 11)

64. The United States Department of Interior, Fish and Wildlife Service (FWS), Division of Migratory Bird Management provides “Guidance on the Siting, Construction, Operation and Decommissioning of Communications Towers” in accordance with the Migratory Bird Treaty Act. The following is the Service’s recommendations for the siting of telecommunications facilities.

<b>Recommendation</b>	<b>Verizon’s proposed facility</b>
Encourage collocation on existing communications towers or other structures	Verizon seeks collocation wherever possible but it is not an option as an alternative to the proposed facility.
New towers encouraged to be no more than 199 feet agl, use construction techniques that do not include guy wires and be unlighted if FAA regulations permit.	Proposed tower would be less than 199 feet agl.
If multiple towers, consider cumulative impacts to migratory birds and threatened and endangered species, as well as the impact of each individual tower.	Not Applicable
If possible, site new towers within clusters of towers. Discourage the siting of towers near wetlands, other known bird concentration areas, in known migratory or daily movement flyways, or in habitat of threatened or endangered species. Also, towers should not be sited within areas of high incidence of fog, mist and low ceilings	Not Applicable
If a tower in excess of 199 feet agl must be constructed, the minimum amount of pilot warning and obstruction avoidance lighting required by the FAA should be installed.	The proposed tower would be less than 199 feet agl
Towers using guy wires that are proposed within known raptor or waterbird concentration areas or daily movement routes, or in major daytime migratory bird movement routes or stopover sites should have visual markers on the wires to prevent collisions.	The proposed tower is a monopole and no guy wires are proposed.
Towers should be sited, designed and constructed to avoid or minimize habitat loss within and adjacent to the tower footprint. Access roads and fencing should be minimized to reduce or prevent habitat fragmentation and disturbance.	The site footprint would be 50 feet by 75 feet. The removal of six trees would be required for construction.
An alternative site should be sought if significant numbers of breeding, feeding or roosting birds are known to inhabit the proposed construction area. If this is not possible, seasonal restrictions on construction may be advisable.	Not Applicable
Towers should be designed to accommodate at least two additional carriers antennas	The proposed tower is designed to support three additional carriers as well as town and FVFD antennas.
Security lighting for on-ground equipment should be down-shielded.	Security lighting would be down-shielded.
Service personnel from the Communication Tower Working Group should be allowed access to the tower site under construction or proposed for construction.	
Towers no longer in use should be removed within 12 months of cessation of use.	Could be ordered by the Council

(Verizon 8, R. 10; Tr. 3, pp. 158-160, 162)

65. The "Briefing Paper on the Need for Research into the Cumulative Impacts of Communication Towers on Migratory Birds and Other Wildlife in the United States" (Briefing Paper) by the Division of Migratory Bird Management, U.S. Fish & Wildlife Service discusses the need to study the impacts of communication towers on migratory birds, from collisions as well as from radiation. The FWS acknowledges that the potential effects of non-ionizing, non-thermal tower radiation on birds are virtually unknown, including at levels below the maximum safe exposure levels previously determined for humans. (Jaeger 51)
66. The Briefing Paper discussed that, in 2000, the Communication Tower Working Group developed a nationwide tower research protocol to assess impacts on birds from tower collisions. That study did not go forward because the Working Group never acquired funding. The FWS suggests that the same type of study could be conducted to assess impacts of radiation on breeding birds. (Jaeger 51)
67. Vegetation at the proposed site consists of post agricultural mid to late-succession growth with the exception of areas previously cleared by the property owner for the development of a fire department and ambulance service center and a gravel pit. Trees existing on the host property consist predominately of pine and oak. Approximately seven trees would be removed for the construction of the proposed site and access road. (Verizon 1, Tab 1; Verizon 6, R. 10)
68. Properties surrounding the host property include oak forest, sawmill yard and business development, residential, upland meadow and cultivated field. (Verizon 6, R. 10)
69. No wetlands are located within 200 feet of the proposed site. An intermittent watercourse was identified approximately 240 feet south of the proposed compound. An additional intermittent watercourse was identified approximately 260 feet north of the proposed compound. Construction of the proposed site is not expected to adversely affect either intermittent watercourse. (Verizon 1, p. 18)
70. The closest public airfield to the proposed site is at the Sharon Hospital approximately 6.6 miles southwest of the proposed site. The nearest private airport is located in Great Barrington, Massachusetts, approximately 14.5 miles north of the proposed site. (Verizon 1, Tab 13; Verizon 6, R. 17)
71. The maximum power density from the radio frequency emissions of Verizon's proposed antennas would be 18.8% of the standard for Maximum Permissible Exposure, as adopted by the FCC, at the base of the proposed tower. This calculation was based on methodology prescribed by the FCC Office of Engineering and Technology Bulletin No. 65E, Edition 97-01 (August 1997) that assumes all antennas would be pointed at the base of the tower and all channels would be operating simultaneously. (Verizon 1, p. 15; Verizon 7, p. 2)
72. At a distance of 1,290 feet from the proposed antennas, the worst-case total radio frequency emissions of Verizon's proposed antennas would be 0.25% of the standard for Maximum Permissible Exposure, as adopted by the FCC. (Verizon 10, p. 2, attachment 2; Tr. 3, pp. 113-114)
73. The Council has reviewed the studies introduced by the Intervenor. Exhibit 51 is the U.S. FWS Briefing Paper, which has been discussed above. Exhibit 7 is a study on mice and the Council finds that it does not provide credible evidence that radiofrequency (RF) emissions kill mice, birds or other wildlife. Exhibit 6 regarding White Storks does not establish that RF emissions directly kill such storks. Exhibit 5 is a study regarding House Sparrows and does not demonstrate that RF emissions directly kill such birds. The same is true of Exhibit 4. Exhibits 1, 2 and 3 do not demonstrate that RF emissions directly kill the studied birds. (Jaeger 1; Jaeger 2; Jaeger 3; Jaeger 4; Jaeger 5; Jaeger 6; Jaeger 7; Jaeger 51)

Visibility

74. The proposed tower would be visible year-round from approximately 24 acres within a two-mile radius of the site (refer to Figure 3 of this document). The tower would be seasonally visible from an additional approximately 46 acres within a two-mile radius of the site. (Verizon 1, Tab 10)
75. Visibility of the proposed tower from specific locations within a two-mile radius of the site is presented in the table below:

Location	Visible	Approx. Portion of Tower Visible	Approx. Distance from Tower
1. Intersection of Six Rod Road and Route 7	Yes	65 to 75 feet – above trees	0.07 miles southeast
2. Intersection of Beebe Hill Road and Six Rod Road	Yes	70 to 75 feet – above trees	0.23 miles northeast
3. Beebe Hill Road (north of Six Rod Road)	Yes	75 to 80 feet – above trees	0.23 miles northeast
4. Route 112 (adjacent to #531)	Yes	50 to 60 feet – above trees	1.12 miles southwest
5. Route 112 (west of Route 7)	Yes	80 to 90 feet – above trees	1.03 miles southwest
6. Traffic triangle at Route 112 and Route 7	Yes	65 to 75 feet – above trees	0.96 miles southwest
7. Route 7 (north of Route 112)	Yes	40 to 50 feet – above trees	0.82 miles southwest
8. Outcrop along Mohawk Trail	Yes	10 to 20 feet – above trees	0.65 miles southeast
9. Beebe Hill Road	Yes	20 to 25 feet – above trees (with trees as background)	0.35 miles southeast
10. Appalachian Trail over Sharon Mountain	No	-	2.11 miles southwest
11. Appalachian Trail on northern shoulder of Sharon Mountain	No	-	1.93 miles southwest
12. Warren Turnpike/Appalachian Trail at Housatonic Valley Regional High School	No	-	0.53 miles southwest
13. Appalachian Trail east of Warren Turnpike	No	-	0.2 miles southwest

(Verizon 1, Tab 10; Verizon 6, R. 18)

76. The proposed tower would be visible year-round from portions of Six Rod Road and Beebe Hill Road, an approximately 0.5 mile segment of Route 112 west of Route 7 and a portion of Route 7 north of Route 112. (Verizon 1, Tab 10)
77. Seasonal views of the proposed tower are expected from four additional properties along portions of Route 7, Beebe Hill Road and Six Rod Road within ¼ mile of the proposed site. (Verizon 1, Tab 10; Verizon 6, R. 20)
78. The proposed tower would be visible year-round from approximately five residential properties including three residences in the Beebe Hill Road/Six Rod Road area and two residences along Route 112. (Verizon 1, Tab 10)

79. The proposed tower would be visible from an outcrop along Mohawk Trail west of Lookout Point. In addition, a segment of the Appalachian Trail that parallels Route 7 would have a year-round view of the proposed tower. (Verizon 1; Tab 10)
80. Visual impact of the tower on the Appalachian National Scenic Trail would be mitigated with measures recommended by the United States Department of the Interior, National Park Service as stated in Finding number 13. (Verizon 4, Letter from US Department of the Interior)
81. The proposed tower would be visible from the Housatonic Valley Regional High School athletic fields. (Verizon 1, Tab 10)
82. The proposed monopine design of the proposed tower could minimize visual impact to the surrounding community. (Verizon 1, Tab 10)

**Existing and Proposed Wireless Coverage – Verizon**  
**Public Need for the proposed site**

83. Verizon operates in the FCC's Block F, which is associated with PCS frequencies of 1890 to 1895 MHz and 1970 and 1975 MHz. Verizon recently acquired Alltel Communication's cellular license (for the 850 MHz frequency range) and would install equipment and antennas at the proposed site that would provide service in both cellular and PCS frequency bands. The signal level service design for the Falls Village section of Canaan is -85 dBm and -75 dBm for in-vehicle and in-building coverage, respectively. (Verizon 1, Tab 6, Tab 7; Verizon 6; Tr. 1, p. 54)
84. Verizon does not intend to install antennas on the proposed tower to provide service within the 700 MHz frequency at this time. (Verizon 7, p. 2)
85. Verizon uses both PCS and cellular frequencies to provide both voice and data services, in general. In Litchfield County, Verizon proposes to use both PCS and cellular frequencies for voice services and PCS frequencies for data services. (Tr. 1, pp. 56-57)
86. The existing signal level in the area of the proposed site ranges from -86 dBm to -104 dBm, at both PCS and cellular frequencies. (Verizon 6, R. 22)
87. A coverage gap exists in Verizon's PCS and cellular coverage between the existing 130-foot tree tower at 477 Route 7 in Sharon and the 195-foot tower off Lower Road in North Canaan. Figure 4 of this document depicts existing PCS coverage and Figure 6 depicts existing cellular coverage. (Verizon 1, p. 2)
88. At the Council's July 1, 2008 public hearing, a public comment session provides an opportunity for limited appearance statements. Such statements are not under oath or subject to cross-examination. During the public hearing in Falls Village, three of the people that provided comments stated that they have cell phone coverage. Lee Ann Lasher stated that she has a pay-as-you-go cell phone and has "perfectly fine coverage in that location." Jeffery Lehman lives at 220 Route 7 South and stated that he has "perfect cell coverage at my house" as well as the Mountainside Café, Torrington Savings Bank. Kim Allen stated that she gets cell phone coverage within ¼ mile of her house, which is at 4 Brewster Road. None of the people that stated they have coverage within Falls Village mentioned what carrier they are using and none was called as a witness in this proceeding. (Tr. 2, pp. 13, 15-17)
89. The proposed facility would provide approximately 2.6 miles of reliable PCS coverage to Route 7, 1.1 miles to Route 112, and 1.2 miles to Route 126. The overall PCS footprint of coverage from the

proposed tower would be 2.92 square miles. Figure 5 of this document depicts existing coverage and PCS coverage from the proposed site. (Verizon 1, p. 2)

90. The proposed facility would provide approximately 3.45 miles of reliable cellular coverage along Route 7, 1.25 miles along Route 112, and 1.3 miles along Route 126. The overall cellular footprint of coverage from the proposed tower would be 10.6 square miles. Figure 7 of this document depicts existing coverage and cellular coverage from the proposed site. (Verizon 7, p. 2)
91. A coverage footprint from a telecommunications facility will increase and decrease in size based on the number of users on a particular site at a particular time. (Tr. 3, p. 87)

92. Verizon antennas on the proposed tower would interact with:

Address	Tower Height	Verizon Antenna Height	Distance & Direction
477 Route 7, Sharon	130 feet	130 feet	2.4 miles south
38 Lower Road, North Canaan	195 feet	168 feet	5.13 miles northeast

(Verizon 6, R. 23)

93. Verizon determines public need for a facility based upon factors including dropped calls and ineffective attempts data, customer complaints and marketing input. On the Verizon system, a call is lost due to less than reliable signal strength within, or at the edge of, a coverage footprint from a facility. Facilities without hand-off capability typically will have higher lost call rates compared to a coverage continuity. (Tr. 3, pp. 138, 139; Verizon, Late-filed exhibit dated August 11, 2008)
94. An ineffective attempt occurs when a call, either initiated or received by a customer, fails due to unreliable signal strength. Some ineffective attempts are not included in the data collected by Verizon because coverage or capacity issues in the area may not allow a call to reach a cell site, and therefore is not counted. (Tr. 3, pp. 144, 146; Verizon, Late-filed exhibit dated August 11, 2008)
95. Verizon monitors dropped call and ineffective attempt data for each of its existing sites with a goal of maintaining a standard of less than 1% for dropped calls and ineffective attempts from each cell site. The two nearest sites to the proposed site experience a dropped call rate of 5.6% and ineffective attempt rate of 2.7%. In addition, there may be more ineffective attempts that have not been counted due to a signal in the area that is too weak to initiate that call. (Verizon, Late-filed Exhibit dated August 11, 2008)
96. In addition to the proposed site, Verizon would require a site to the north to provide coverage along Route 7. (Verizon 6, R. 2)



**Figure 1.** Aerial photograph of the proposed site and surrounding area in Falls Village, CT. (Verizon 1, Tab 1)

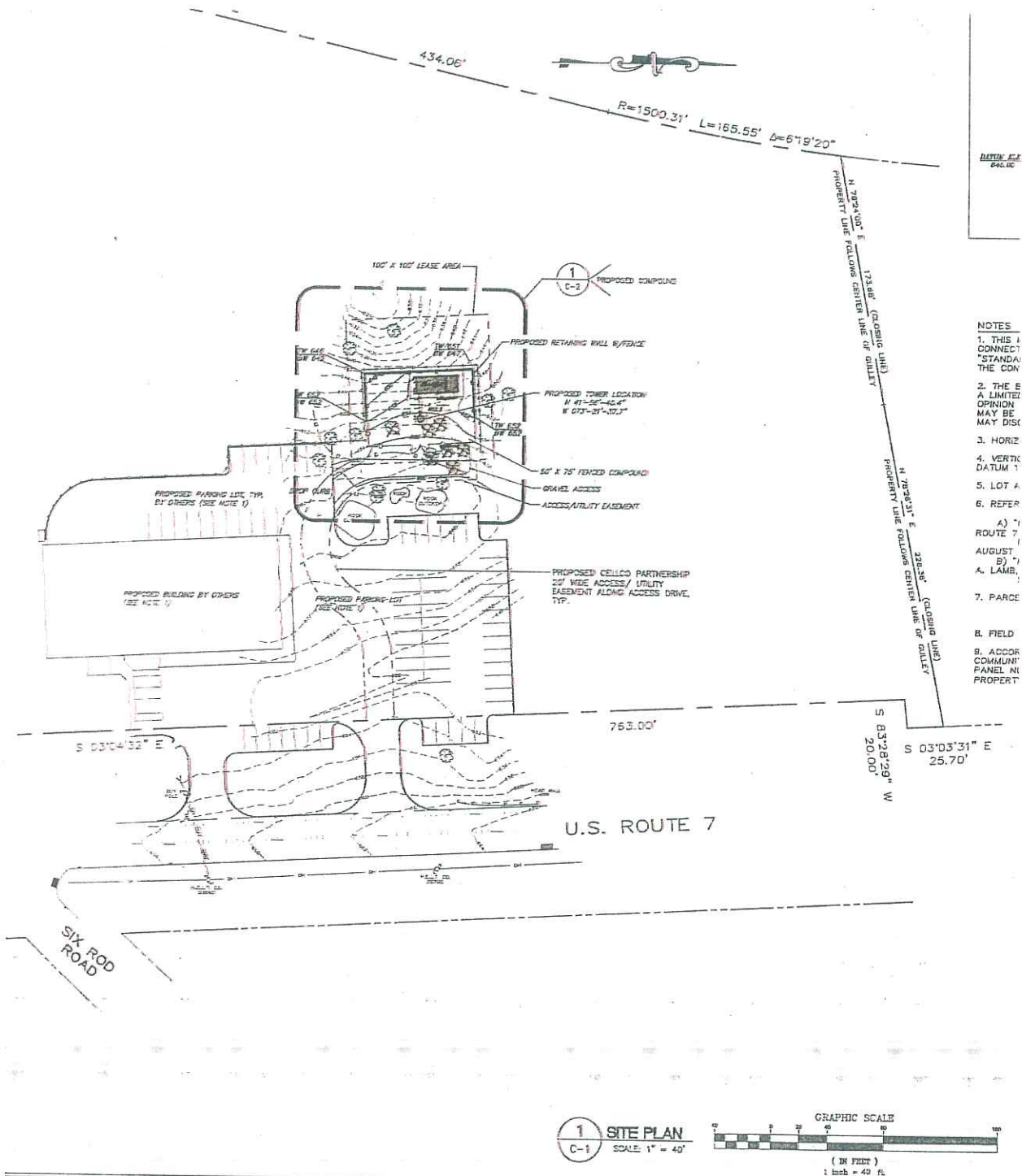


Figure 2. Site plan for proposed site. (Verizon 1, Tab 1)





Figure 3. Viewshed analysis of a 157-foot monopine at the proposed site. (Verizon 1, Tab 10)

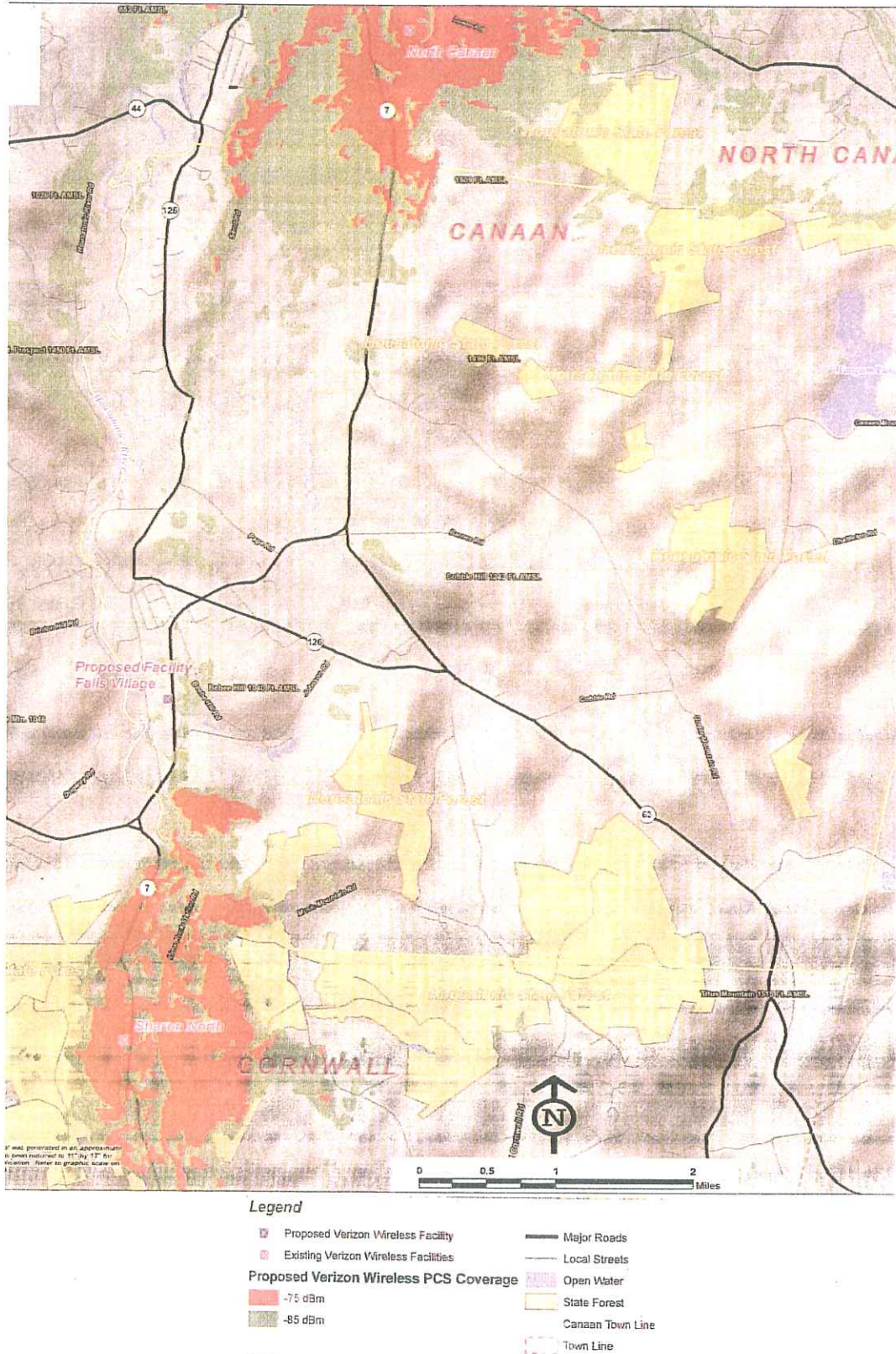
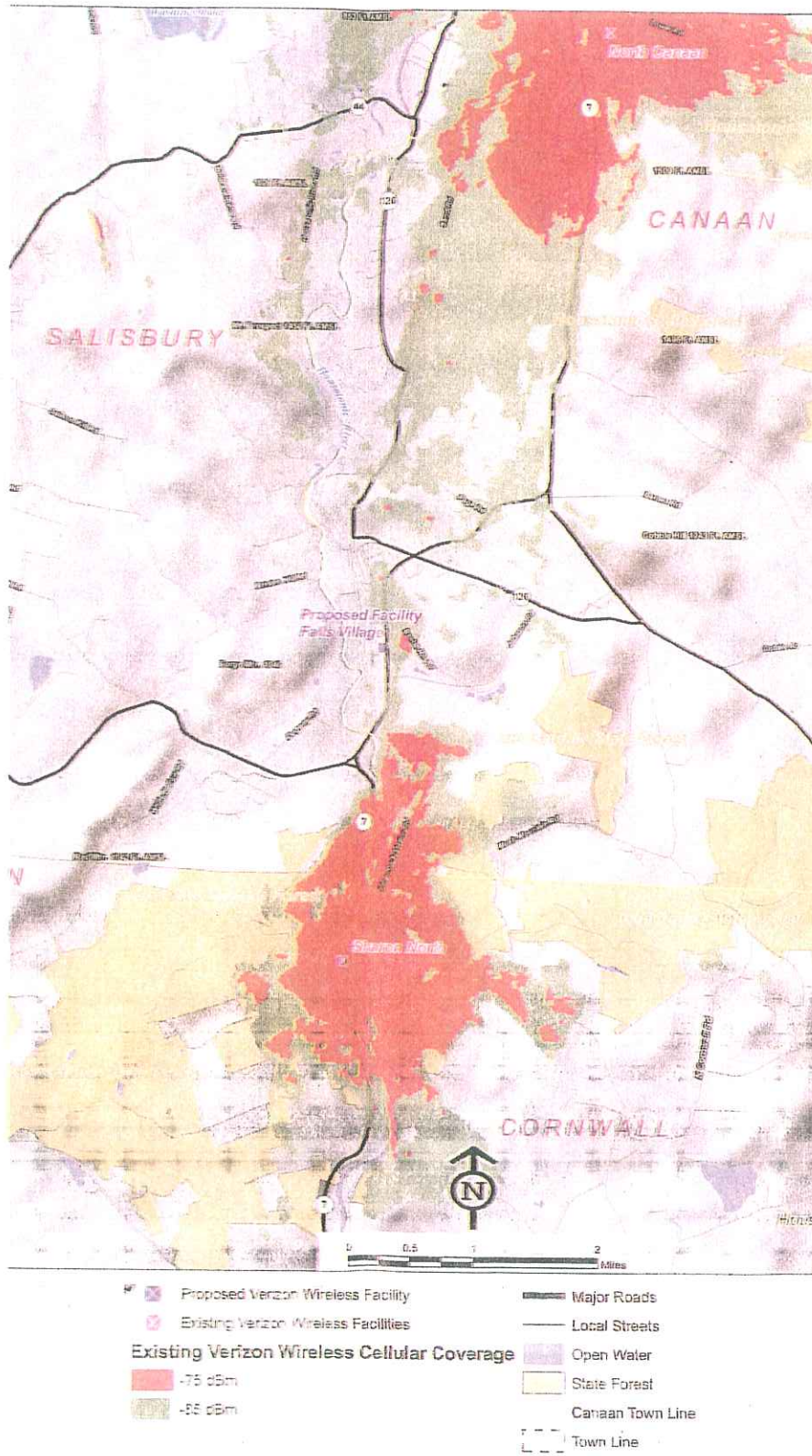


Figure 4. Verizon's existing PCS coverage in the area surrounding the proposed site. (Verizon 1, Tab 7)



**Figure 5.** Verizon's existing PCS coverage and PCS coverage from the proposed site at 150 feet a.g.l. (Verizon 1, Tab 7)



**Figure 6.** Verizon's existing cellular coverage in the area surrounding the proposed site. (Verizon 7, Tab 2)

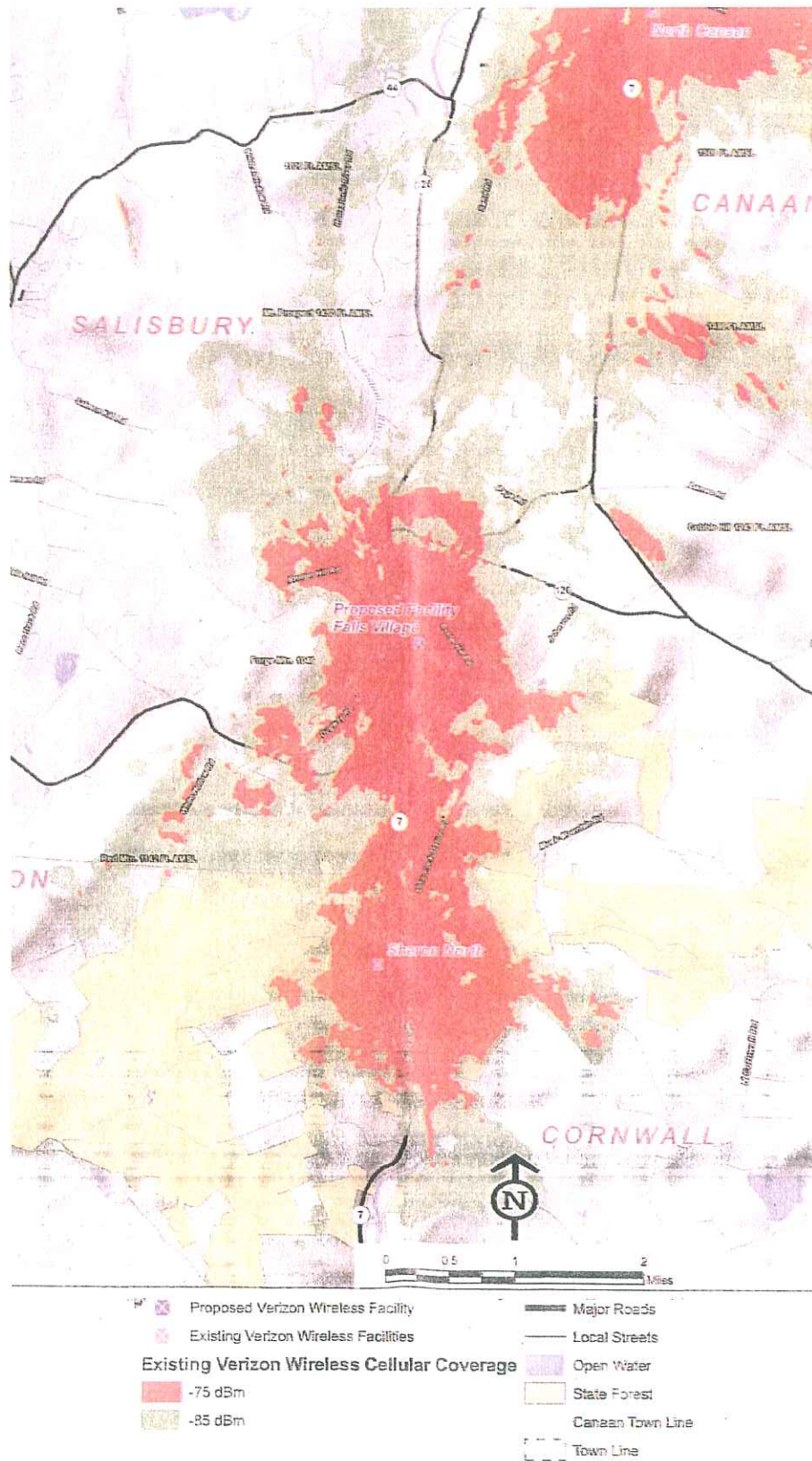


Figure 7. Verizon's existing cellular coverage and cellular coverage from the proposed site at 150 feet agl. (Verizon 7, Tab 2)



**DOCKET NO. 360** - Verizon 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 188 Route 7 South, Falls Village (Canaan), }  
Connecticut.

Connecticut

Siting

Council

February 4, 2009

### **DRAFT Conclusions of Law**

#### **1. The applicant has presented the Council with sufficient evidence of “public need.”**

- C.G.S. §16-50p(a)(3) states, in part, “...the Council shall not grant a certificate {for a telecommunications facility}... unless it shall find and determine: ... a public need for the facility and the basis for the need.”
- “Public need” is only defined under C.G.S. §16-50p(h) as it applies to energy facilities, such as electric transmission lines, but is otherwise not defined in the general statutes.
- The Council has consistently defined “need” as a gap in service for which the applicant seeks to provide coverage and not according to the existence of service in the subject area provided by another carrier. To hold otherwise would create a monopoly for the first carrier which would be anti-competitive and detrimental to the Connecticut residents in terms of rates and service.
- It is the well established practice of the court to accord great deference to the construction given a statute by the agency charged with its enforcement. *State Board of Labor Relations v. Freedom of Information Commission*, 244 Conn. 487 (1998). An agency’s practical construction and “time-tested” interpretation of a statute is “high evidence of what the law is.” *Anderson v. Ludgin*, 175 Conn. 545 (1978).
- The applicant has presented credible evidence that there is a significant gap in service that cannot be remedied by less intrusive means (Findings of Fact Nos. 83-96). Therefore, there is a public need for the proposed facility.
- The Telecommunications Act (TCA) states, in part, “The regulation of the placement, construction and modification of personal wireless service facilities by any State or local government or instrumentality thereof— shall not unreasonably discriminate among providers of functionally equivalent services; and shall not prohibit or have the effect of prohibiting the provision of personal wireless services.” 47 U.S.C. §332(c)(7)(B)(i).
- The purpose of the TCA is to promote competition, encourage technical innovations and foster lower prices for telecommunications services (Findings of Fact No. 25). Generally, under the TCA, Congress has clearly expressed a “need” for wireless communications. Therefore, granting the application would be consistent with the TCA.
- However, denial of an application on the basis of adequate coverage that is provided by a different carrier would in effect be anti-competitive and violate the purpose of the TCA. *APT Pittsburgh Limited Partnership v. Penn Township*, 196 F.3d 449 (3<sup>rd</sup> Cir. 1999) held that 47 U.S.C. §332 (c)(7)(B)(i) is violated when the area the new facility will serve is not already served by another provider, which is unpersuasive, whereas *Second Generation Properties, L.P. v. Town of Pelham*, 313 F.3d 620 (1<sup>st</sup> Cir. 2002) held that 47 U.S.C. §332 (c)(7)(B)(i) is violated when a town prohibits a carrier from providing service based on the fact that another carrier already provides service in that area.





- The Second Circuit held that 47 U.S.C. §332 (c)(7)(B)(i) only allows a state to deny an application to construct a new facility if (1) the area in which the facility is proposed is already sufficiently serviced by a wireless service provider, and (2) the proposed facility is substantially more intrusive than existing cell sites by virtue of its structure, placement or cumulative impact. *Sprint Spectrum, L.P. v. Willoth*, 176 F.3d 630 (2<sup>nd</sup> Cir. 1999).

**2. The applicant has complied with the municipal consultation requirements under C.G.S. §16-50l.**

- C.G.S. §16-50l states, in part, "... at least sixty days prior to the filing of an application with the council, the applicant *shall* consult with the municipality in which the facility may be located... Such consultation with the municipality *shall* include, but not be limited to, good faith efforts to meet with the *chief elected official* of the municipality..." The municipality *may* conduct public hearings and meetings as it deems necessary for it to advise the applicant of its recommendations concerning the facility."(Emphasis added).
- Under C.G.S. §7-12a, entitled "First selectman to be chief executive officer and ex-officio member of town boards, commissions and committees" states: "Unless otherwise provided by law, the first selectman, in each town for which its board of selectmen is the executive authority, shall be the chief executive officer of such town and shall be an ex-officio member, without vote, of all town boards, commissions and committees; provided nothing herein shall be construed to affect any special act which gives the first selectman the power to vote on such boards, commissions and committees."
- The applicant met with the Town of Canaan's chief elected official, First Selectman, Patricia Allyn Mechare on October 23, 2007 (Findings of Fact No. 18). The applicant also provided copies of the technical information regarding the proposed project to the Town of Salisbury's chief elected official, First Selectman, Curtis G. Rand. Therefore, the applicant met the municipal consultation requirements under C.G.S. § 16-50l.

**3. The TCA preempts the Council from considering non-thermal effects of radio frequency (RF) emissions on human health when those emissions comply with the levels established by the FCC.**

- 47 U.S.C. § 332 (c)(7)(B)(iv) states, "No state or local government or instrumentality thereof may regulate the placement, construction and modification of personal wireless facilities on the basis of the *environmental effects* of radio frequency emissions to the extent that such facilities comply with the Commission's regulations concerning such emissions." (Emphasis added).
- "Environmental effect" is defined under the FCC's regulations, 47 C.F.R. § 1.1307(b) as human exposure to radio frequency emissions above certain levels, and *Sprint Spectrum L.P. v. Mills*, 283 F. 3d 404 (2<sup>nd</sup> Cir. 2003) held that 47 U.S.C. §332(c)(7)(iv) preempts state and local governments from regulating the placement, construction or modification of personal wireless service facilities on the basis of health effects of RF radiation where the facilities would operate within levels determined by the FCC to be safe.
- Neither the TCA nor the cases interpreting it distinguish between thermal and non-thermal effects of RF emissions.
- The Supreme Court stated that the purpose of the TCA was "to promote competition and higher quality in American telecommunications services" and to reduce the impediments



imposed by local governments upon the installation of facilities for wireless communications towers.” *City of Rancho Palos Verdes v. Abrams*, 544 U.S.113 (2005).

- Therefore, the plain meaning of 47 U.S.C. §332(c)(7)(iv) preempts the Council from assessing the safety and environmental concerns of thermal or non-thermal effects of RF emissions on human health when those emissions are in compliance with the permissible limits set forth in the FCC regulations and this interpretation comports with the express intent of Congress.

**4. The TCA preempts the Council from considering effects of radio frequency (RF) emissions on wildlife when those emissions comply with the levels established by the FCC.**

- 47 U.S.C. § 332 (c)(7)(B)(iv) states, “No state or local government or instrumentality thereof may regulate the placement, construction and modification of personal wireless facilities on the basis of the *environmental effects* of radio frequency emissions to the extent that such facilities comply with the Commission’s regulations concerning such emissions.” (Emphasis added).
- “Environmental effect” is defined under FCC’s regulations, 47 C.F.R. § 1.1307(a)(3) as “an effect on threatened or endangered species or designated critical habitats.”
- The Supreme Court stated that the purpose of the TCA was “to promote competition and higher quality in American telecommunications services” and to reduce the impediments imposed by local governments upon the installation of facilities for wireless communications towers. *City of Rancho Palos Verdes v. Abrams*, 544 U.S. 113 (2005).
- Therefore, the plain meaning of 47 U.S.C. §332(c)(7)(iv) preempts the Council from assessing the safety and environmental concerns of the effects of RF emissions on wildlife when those emissions are in compliance with the permissible limits set forth in the FCC regulations and this interpretation comports with the express intent of Congress.

**5. The TCA, when read together with the Migratory Bird Treaty Act (MBTA) and the Bald and Golden Eagle Protection Act (BGEPA), preempts the Council from considering effects of RF emissions and other harmful effects of telecommunications towers on birds covered by these acts.**

- The MBTA states, “...it shall be unlawful at any time, by any means or in any manner, to pursue, hunt, take, capture, kill, attempt to take, capture or kill... any migratory bird.”
- The BGEPA states, “Whoever... without being permitted to do so as hereinafter provided, shall knowingly, or with wanton disregard for the consequences of his act take, possess... any bald eagle commonly known as the American eagle, or any golden eagle... shall be fined not more than \$5000 or imprisoned not more than one year or both...”
- The U.S. Fish and Wildlife Service (FWS) Division of Migratory Bird Management maintains guidelines in accordance with the MBTA as to recommendations for the siting of telecommunications facilities (Findings of Fact No. 64).
- *Newton County Wildlife Association v. U.S. FWS*, 113 F.3d 110 (8<sup>th</sup> Cir. 1997) held that the MBTA’s prohibition applies only to direct conduct that takes or kills birds rather than indirect or incidental takes or kills. However, *U.S. v. FMC Corporation*, 572 F. 2d 902 (2<sup>nd</sup> Cir. 1978) held that MBTA’s prohibition applies to incidental killings, such as bird deaths due to ingestion of toxic chemicals pumped into a pond next to a pesticide plant.



- Bird deaths associated with RF emissions from telecommunications towers are incidental and it is well established that the FCC regulates RF emissions levels through the TCA, which is silent as to its application to migratory birds and bald and golden eagles.
- The MBTA was promulgated in 1918; the TCA was promulgated in 1996.
- “If a treaty and a federal statute conflict, the one last in date will control the other.” *Breard v. Greene*, 523 U.S. 371 (1998). “An Act of Congress is on full parity with a treaty and a subsequent statute renders the treaty null to the extent of the conflict.” *Safety National Casualty Corp. v. Certain Underwriters at Lloyd’s*, 543 F.3d 744 (5<sup>th</sup> Cir. 2008); *Stephens v. Am. Int’l Ins. Co.*, 66 F.3d 41 (2<sup>nd</sup> Cir. 1995).
- There is, however, a provision of the TCA, Title VI, Section 601(c) of P.L. 104-104 that states that the TCA “shall not be construed to modify, impair or supersede Federal, State or local law unless expressly so provided...”
- Federal case law demands that whenever possible, statutes are to be construed harmoniously and not to produce conflict. *Morton v. Mancari*, 417 U.S. 535 (1974).
- Extending the holding of the FMC case produces a conflict between the bird protection statutes and the TCA that could circumvent the purpose of the TCA’s preemptive provisions. Harmonizing these statutes requires the Council to limit FMC’s holding to the specific type of situation described in that case and rule that the MBTA and BGEPA do not apply to the approval of cell towers.

