STATE OF CONNECTICUT
SITING COUNCIL

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| CELLCO PARTNERSHIP<br>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 | : | DOCKET NO. 360 |



**POST-HEARING BRIEF SUBMITTED ON BEHALF OF INTERVENOR DINA JAEGER**

## INTRODUCTION

This post-hearing memorandum of law is submitted on behalf of Intervenor Dina Jaeger to set forth the legal grounds for denying Cellco's application and to address the specific issues requested by the Siting Council in the letter from Chairman Caruso dated August 14, 2008.

For the Council's convenience, bracketed numbers following subheadings throughout this brief refer to paragraph numbers in the Council's August 14, 2008 letter.

### Summary of Argument

**I. NO PUBLIC NEED.** No sufficient public need has been established for erecting a cell tower at the proposed location, as required by state law.

(a) The sole evidentiary showing of need is computerized data on Verizon "dropped" and "inaffective attempt" calls, which are de minimus in quantity and unspecified as to location;

(b) Applicant has not demonstrated that there are no alternative sites available that would be less intrusive or less harmful to the environment; and

(c) Applicant has not demonstrated why co-locating or roaming arrangements are not feasible with one of the four existing providers who presently serve the area.

**II. INADEQUATE MUNICIPAL CONSULTATION.** The mandatory "municipal consultation" for this application was inadequate and defective.

**III. NO PRUDENT AVOIDANCE.** The Siting Council is not preempted by FCC regulations from establishing a "prudent avoidance" buffer zone to protect schools and residences from potential health threats caused by non-thermal biological effects from long-term RF radiation. The Council is duty bound to protect the public.

**IV. HARM TO MIGRATORY BIRDS.** Under the Supreme Court holding in State of Missouri v. Holland, [252 U.S. 416, 433 (1920)] and the express savings clause of the Telecommunications Act of 1996, federal and international law protecting migratory birds supersede conflicting provisions of the Telecommunications Act. Based on existing scientific evidence, together with the applicant's tacit concurrence that close to 200 protected species of migratory birds -- including the bald eagle -- have been observed in the proposed coverage area, operation of a cell tower at the proposed location would violate the International Migratory Bird Treaty, the Migratory Bird Treaty Act and the Bald Eagle Protection Act by:

(a) interfering with the birds' natural navigation system after dark, causing tower strikes and fatalities;

(b) preventing bird nesting and reproduction in the tower vicinity; and

(c) destroying bird habitats and food sources.

The Application must be denied on each and all of these grounds.

## POINT I

## CELLCO HAS FAILED TO INTRODUCE SUBSTANTIAL EVIDENCE ESTABLISHING A PUBLIC NEED FOR THE PROPOSED CELL TOWER ON ROUTE 7. TO THE CONTRARY, CELLCO'S EVIDENCE ESTABLISHES THAT THE AREA IS ALREADY SATURATED WITH COVERAGE BY FOUR OTHER CARRIERS

(CSC Legal Issue Numbers 1 and 10)

**Standard the CSC Must Apply** [1]

Connecticut General Statutes Section 16-50p provides the criteria that the Siting Council must follow for granting or denying an application in a certification proceeding:

(1) Whether the applicant has established public need for the facility;

(2) Whether the applicant has identified all adverse environmental impacts and conflicts with state policy and established that they are not sufficient to deny the application.

Cellco has failed to satisfy either of these criteria.

**The Statute**

Key provisions of the statute are as follows:

> **Sec. 16-50p. Certification proceeding decisions: Timing, opinion, factors considered. Telecommunications and community antenna television facilities: Additional factors considered, conditions. Modification of location. Amendment proceeding decisions. Service and notice. "Public need" defined.**
>
> (a)(1) In a certification proceeding, the council shall render a decision upon the record either granting or denying the application as filed, or granting it upon such terms, conditions, limitations or modifications of the construction or operation of the facility as the council may deem appropriate. * * *
>
> (3) The council shall file, with its order, an opinion stating in full its reasons for the decision. The council shall not grant a certificate, either as proposed or as modified by the council, unless it shall find and determine:
>
> (A) Except as provided in subsection (c) of this section, public need for the facility and the basis of the need;
>
> (B) The nature of the probable environmental impact of the facility alone and cumulatively with other existing facilities, including a specification of every significant

adverse effect, including, but not limited to, electromagnetic fields that, whether alone or cumulatively with other effects, on, and conflict with the policies of the state concerning, the natural environment, ecological balance, public health and safety, scenic, historic and recreational values, forests and parks, air and water purity and fish, aquaculture and wildlife;

(C) Why the adverse effects or conflicts referred to in subparagraph (B) of this subdivision are not sufficient reason to deny the application; * * *

(b) (1) Prior to granting an applicant's certificate for a facility described in subdivision (5) or (6) of section 16-50i, the council shall examine, in addition to its consideration of subdivisions (1) to (5), inclusive, of subsection (a) of this section: (A) The feasibility of requiring an applicant to share an existing facility, as defined in subsection (b) of section 16-50aa, within a technically derived search area of the site of the proposed facility, provided such shared use is technically, legally, environmentally and economically feasible and meets public safety concerns, (B) whether such facility, if constructed, may be shared with any public or private entity which provides telecommunications or community antenna television service to the public, provided such shared use is technically, legally, environmentally and economically feasible at fair market rates, meets public safety concerns, and the parties' interests have been considered and (C) whether the proposed facility would be located in an area of the state which the council, in consultation with the Department of Environmental Protection and any affected municipalities, finds to be a relatively undisturbed area that possesses scenic quality of local, regional or state-wide significance. The council may deny an application for a certificate if it determines that (i) shared use under the provisions of subparagraph (A) of this subdivision is feasible, (ii) the applicant would not cooperate relative to the future shared use of the proposed facility, or (iii) the proposed facility would substantially affect the scenic quality of its location and no public safety concerns require that the proposed facility be constructed in such a location. * * *

(Emphasis added.)

**Public Need Standard, Sharing and Roaming** [1] [10]

The foregoing Connecticut statutory law requires that a provider must --

(a) establish that there is a public need for the facility;

(b) establish the basis of that need;

(c) establish that the public need cannot be filled by sharing an existing facility.

Here the evidence of public need is marginal at best -- based on computer data showing a de minimus number of inaffective attempts and dropped calls. (Restrepo Affidavit.) Such data is wholly unspecified as to place of occurrence and could have happened anyplace in the

adjoining coverage areas. Even if such data met the substantial evidence requirement, the Applicant has produced no evidence that it is unable to share facilities (or enter into roaming arrangements) with one of the four other providers who already provide wireless service in the alleged gap in Cellco coverage.

Furthermore, the Applicant has not made a bona fide attempt at showing that there are no other sites available to fill the gap which will minimize the level of RF emissions in residential areas, private and public schools, day care facilities, youth camps and public playgrounds.

**Scenic Grounds for Denial of Application**

Section 16-50p(b)(1) also authorizes denial of an application where the proposed facility would "substantially" affect the scenic quality of its location, which in this case is directly alongside the Ethan Allen Highway, designated by the General Assembly as an historic scenic route under Connecticut's Scenic Road program. (IJ55) Disguising the tower as an artificial pine tree would not constitute protection of the scenic character of the area.

**Co-location and Roaming Alternative**

Given the extensive existing wireless coverage of Falls Village by four other providers, the Cellco Application is fatally defective for its failure to explain why any gap in Cellco coverage along Route 7 cannot be filled by co-locating on one of these providers' existing facilities, or pursuant to the FCC's existing manual roaming requirement.

The FCC has explained present roaming requirements in its Notice of Proposed Rulemaking on Automatic and Manual Roaming Obligations (FCC 00-361) (at p. 4). It appears that there is no good reason why Cellco/Verizon customers cannot have "seamless" coverage along Route 7 through an appropriate roaming arrangement:

> 7. In July 2000, the Commission generally affirmed the manual roaming requirement in the *Manual Roaming Order on Reconsideration*, while modifying the definition of which

CMRS providers were "covered" as well as extending the rule's application to certain data providers. Thus the manual roaming requirement, as amended, applies to all cellular, broadband PCS, and SMR providers that offer real-time, two-way switched voice or data service that is interconnected with the public switched network and utilizes an in-network switching facility that enables the provider to reuse frequencies and accomplish seamless hand-offs of subscriber calls.

Roaming options for wireless subscribers are explained in the FCC's publication "Consumer Facts," Understanding Wireless Coverage Areas (available at www.fcc.gov/cgb/consumerfacts/cellcoverage.html), a copy of which is attached hereto as Appendix A.

**Protecting Connecticut's Environment**

The Council was expressly created for the purpose of protecting Connecticut's environment:

> Sec. 16-50g. Legislative finding and purpose. The legislature finds that power generating plants and transmission lines for electricity and fuels, community antenna television towers and telecommunication towers have had a significant impact on the environment and ecology of the state of Connecticut; and that continued operation and development of such power plants, lines and towers, if not properly planned and controlled, could adversely affect the quality of the environment and the ecological, scenic, historic and recreational values of the state. The purposes of this chapter are: To provide for the balancing of the need for adequate and reliable public utility services at the lowest reasonable cost to consumers with the need to protect the environment and ecology of the state and to minimize damage to scenic, historic, and recreational values; to provide environmental quality standards and criteria for the location, design, construction and operation of facilities for the furnishing of public utility services at least as stringent as the federal environmental quality standards and criteria, and technically sufficient to assure the welfare and protection of the people of the state; to encourage research to develop new and improved methods of generating, storing and transmitting electricity and fuel and of transmitting and receiving television and telecommunications with minimal damage to the environment and other values described above; to promote energy security; to promote the sharing of towers for fair consideration wherever technically, legally, environmentally and economically feasible to avoid the unnecessary proliferation of towers in the state particularly where installation of such towers would adversely impact class I and II watershed lands, and aquifers; to require annual forecasts of the demand for electric power, together with identification and advance planning of the facilities needed to supply that demand and to facilitate local, regional, state-wide and interstate planning to implement the foregoing purposes.

C.G.S. Chapter 277a Public Utility Environmental Standards Act, §16-50g. (Emphasis added.)

The Second Circuit's decision in Sprint Spectrum v. Willoth held that a state agency has a duty under state law to minimize the impact of the erection of a proposed cell tower. Sprint Spectrum v. Willoth, 176 F.3d 630 (2d Cir. 1999)

Following that decision, the Third Circuit stated in APT Pittsburgh Limited Partnership v. Penn Township:

> In order to show a violation of subsection 332 (c)(7)(B)(i)(II) under Willoth, an unsuccessful provider applicant must show two things. First, the provider must show that its facility will fill an existing significant gap in the ability of remote users to access the national telephone network. In this context, the relevant gap, if any, is a gap in the service available to remote users. Not all gaps in a particular provider's service will involve a gap in the service available to remote users. The provider's showing on this issue will thus have to include evidence that the area the new facility will serve is not already served by another provider. [Fn omitted.]
>
> Second, the provider applicant must also show that the manner in which it proposes to fill the significant gap in service is the least intrusive on the values that the denial sought to serve. This will require a showing that a good faith effort has been made to identify and evaluate less intrusive alternatives, e.g., that the provider has considered less sensitive sites, alternative system designs, alternative tower designs, placement of antennae on existing structures, etc.
>
> APT Pittsburgh Limited Partnership v. Penn Township, 196 F.3d 449, 480 (3d Cir. 1999) (Emphasis added.)

Cellco has failed to present a range of less intrusive alternatives to the Route 7 site and why they would not be adequate substitutes for the proposed site in terms of filling the alleged gap in service.

## POINT II

## CELLCO'S PURPORTED "MUNICIPAL CONSULTATION" VIOLATED THE PLAIN PURPOSE OF THE STATUTE AND DEPRIVED TOWN RESIDENTS OF A PUBLIC TOWN MEETING AND OPPORTUNITY TO DISCUSS AND VOTE ON WHETHER TO APPROVE THE FVVFD'S LEASE WITH CELLCO AND OTHER CARRIERS

(CSC Legal Issue Numbers 2, 7 and 8)

**Municipal Consultation as Provided by C.G.S. §16-50l** [2]

The Siting Council's statutory mandate for "municipal consultation" is defined by C.G.S. 16-50l as:

> **Sec. 16-50*l*. Application for certificate. Notice. Application or resolution for amendment of certificate.** (a)(1) To initiate a certification proceeding, an applicant for a certificate shall file with the council an application, in such form as the council may prescribe, accompanied by a filing fee of not more than twenty-five thousand dollars, which fee shall be established in accordance with section 16-50t, and a municipal participation fee of twenty-five thousand dollars to be deposited in the account established pursuant to section 16-50bb, except that an application for a facility described in subdivision (5) or (6) of subsection (a) of section 16-50i shall not pay such municipal participation fee. An application shall contain such information as the applicant may consider relevant and the council or any department or agency of the state exercising environmental controls may by regulation require, including the following information: * * *
>
> (e) Except as provided in subsection (e) of section 16a-7c, 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 and with any other municipality required to be served with a copy of the application under subdivision (1) of subsection (b) of this section concerning the proposed and alternative sites of the facility. For a facility described in subdivisions (1) to (4), inclusive, of subsection (a) of section 16-50i, the applicant shall submit to the Connecticut Energy Advisory Board the same information that it provides to a municipality pursuant to this subsection on the same day of the consultation with the municipality. 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. At the time of the consultation, the applicant shall provide the chief elected official with any technical reports concerning the public need, the site selection process and the environmental effects of the proposed facility. The municipality may conduct public hearings and meetings as it deems necessary for it to advise the applicant of its recommendations concerning the proposed facility. Within sixty days of the initial consultation, the municipality shall issue its recommendations to the applicant. No later than fifteen days after submitting an application to the council, the applicant shall provide to the council all materials provided to the municipality and a summary of the

consultations with the municipality including all recommendations issued by the municipality.

(Emphasis added.)

The nature of municipal consultation cannot properly be considered without review of what constitutes municipal leadership and representation, as defined in C.G.S. §7-10, ff.

Under C.G.S. §7-12a, the First Selectman is defined as "the chief executive officer of such town and shall be an ex-officio member, without vote, of all town boards, commissions and committees;" (emphasis added.).

In terms of the legal authority over town business, the First Selectman has no unilateral power and is not "the municipality." This is underscored by C.G.S. §7-83 requiring that all financial liability undertaken by the Town must be "signed by majority of the selectmen," (emphasis added) and that any "order not so signed" does not carry the authority of the Town and therefore may not be paid.

According to its representatives' testimony, Verizon met with the First Selectman in late October, 2007. However, when a member of the Board of Selectmen asked about the status of the proposed tower the following month, he was told by the First Selectman that "the CT Siting Council has not yet forwarded anything to us in writing regarding the proposed towers." (IJ76)

If, as Cellco testified, its October visit was intended to be a due and proper statutory "municipal consultation," there was no meeting of the minds and the purported "consultation" was an error of law. The First Selectman was left with the impression that only the Siting Council could effect a formal move on the part of the application.

If, on the other hand, the First Selectman failed to disclose the "municipal consultation" with Cellco to her fellow Selectmen when asked, the "consultation" was equally defective, because the impression was given to the full Board of Selectmen that some other participation by

the Council itself was required. Either way, the "municipal consultation" was an error of law and constitutes a fatal defect under the statutory requirements of C.G.S. §16-50l.

In any event, the applicant's attempted "consultation" was defective under the requirements of §16-50l because (a) it offered no "technical reports concerning the public need," and (b) it fell short in disclosing "the environmental effects of the proposed facility," and (c) whether through fault of town executives or Cellco, the purported "consultation" prevented "conduct [of] public hearings and meetings" or even the process by which the Town might have been permitted to "deem[]" such meetings "necessary for it to advise the applicant of its recommendations concerning the proposed facility." (C.G.S. 16-50l, supra.) As such, the required "municipal consultation" was a nullity, and the application must fail on this ground alone.

Furthermore Cellco should have been aware that consultation with the First Selectman alone cannot constitute a consensus of the Board of Selectmen of the Town of Canaan where one of three Selectmen called for an opportunity for public comment. (IJ76)

Thus, the issue of proper municipal consultation, affecting liability to and interests of the entire Town of Canaan, may not rest on a single meeting by the Applicant with the First Selectman of Canaan. It especially may not rest on a single meeting with the First Selectman where another Selectman (C. Lewis) has expressly requested opportunity for public comment and consideration of the proposed tower. (IJ76)

While the Application contains a letter purportedly conveying the Town Board of Selectmen's consensus, (Town of Canaan Letter, April 28, 2008) there is nothing to indicate the Board of Selectmen's actual decision, determination or action, as required under the Connecticut General Statutes. The letter was signed by one Selectman, not by three, and there are no meeting

minutes recording the deliberation of the sentiments of the letter. In fact, the statutorily required meeting minutes of such discussion from the Town of Canaan "Special Board of Selectmen's Meeting" held on Wednesday, April 23, 2008 state "There was discussion regarding the Board of Selectmen's input to the Siting Council in relation to the proposed telecommunications tower at 188 Route 7 South on the Falls Village Volunteer Fire Department land." No record of the substance of the discussion is made. The minutes mention that the First Selectman "was directed to write a letter of support to be reviewed individually by members of the Board before it was sent." This might have met with the recording criteria of state law if it had recorded the individual review, or if it had recorded the nature of the "support." It did neither. Rather, neither the letter nor the minutes of the meeting recorded the full Board's due deliberation, or the "municipal consultation," or -- most significantly -- any public disclosure, comment or approval. (IJ 61)

Seen in the best light, this was a matter of convenience and expediency. But the number of state statutes it violated in terms of public information, deliberation and disclosure are manifold.

However it came about, the meeting considered by Cellco to be its "municipal consultation" that started the running of the 60-day clock, was apparently never disclosed to the appropriate Town boards and commissions, and all the sequelae that are the natural consequences of public disclosure in a participatory democracy were foreclosed and prevented.

Proper municipal consultation is not a mere formality. It is obvious from the large attendance at the public session of the Council's hearing on Docket Number 360 held in Falls Village on July 1, 2008, that many townspeople are deeply concerned about the issues surrounding the cell tower application, and that a Town Meeting should have been called and a

vote taken before any town approval was issued. For a state agency to by-pass the November, 2007 request for public participation by Town of Canaan leadership is to compound the First Selectman's assertion that "the CT Siting Council has not yet forwarded anything to us in writing regarding the proposed towers," an assertion that foreclosed public participation.

Where a member of the Board of Selectman (as here) expresses the need for public comment, the proper procedure is to hold a town meeting. Annual town meetings are required under state law "for the transaction of business proper to come before such meeting," but "Special town meetings may be convened when the selectmen deem it necessary."

> **Sec. 7-1. Annual and special town meetings. Holding of meetings outside town.** (a) Except as otherwise provided by law, there shall be held in each town, annually, a town meeting for the transaction of business proper to come before such meeting, which meeting shall be designated as the annual town meeting. Special town meetings may be convened when the selectmen deem it necessary, and they shall warn a special town meeting on application of twenty inhabitants qualified to vote in town meetings, such meeting to be held within twenty-one days after receiving such application. Any town meeting may be adjourned from time to time as the interest of the town requires. (b) Where any town's public buildings do not contain adequate space for holding annual or special town meetings, any such town may hold any such meeting outside the boundaries of the town, provided such meetings are held at the nearest practical locations to the town.
>
> (Emphasis added.)

Here, the members of the Board of Selectmen were led to believe by the First Selectman that no paperwork on the Cellco Application had been received, with the result that no town meeting was ever called for public comment and consideration of the tower proposal, of alternative sites, or of environmental harm. This was a violation of democratic process and a fatal statutory defect in the certification process.

Avoidance of public comment on a controversial requested by an elected official representing the interests of the Town of Canaan was a denial of due process to the citizens of the Town, especially where the desirability of holding such a meeting ("when the selectmen

deem it necessary" (C.G.S. §7-1)) is both self-evident and also was expressly proposed in the town record, as here.

The Siting Council should not condone and sanction such avoidance of a full and open opportunity on the town level for public comment and consideration of the Cellco application.

**A "Municipality" Means the Town, Not Just an Individual Officer**

C.G.S. Chapter 98 "Municipal Powers" defines "municipality":

> **Sec. 7-148. Scope of municipal powers.** (a) **Definitions.** Whenever used in this section, "municipality" means any town, city or borough, consolidated town and city or consolidated town and borough.

A First Selectman is not a "town, city or borough." His or her duties are limited. "[T]he 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;" (C.G.S. §7-12a., emphasis added.) Under Connecticut law, the municipality is represented by the Board of Selectman, a majority of which is required to transact official town business.

The fact that the "municipal consultation" described in 16-50l includes "good faith efforts to meet with the chief elected official of the municipality" does not itself satisfy the statutory requirements of legally sufficient consultation with the legal authority of the town (defined under C.G.S. §§7-12a, 7-83, 7-1 7-12, and 7-148).

It is the Town, and not a single Selectman, that has the power under the Tenth Amendment, amplified by C.G.S. §7-148, to protect the public health and safety by providing for "the health of the inhabitants of the municipality and do all things necessary or desirable to secure and promote the public health." and to "[p]rovide for the protection and improvement of the environment" (Emphasis added.) That section holds, in pertinent part:

**Sec. 7-148. Scope of municipal powers.** (a) **Definitions.** Whenever used in this section, "municipality" means any town, city or borough, consolidated town and city or consolidated town and borough. * * *

(c) **Powers.** Any municipality shall have the power to do any of the following, in addition to all powers granted to municipalities under the Constitution and general statutes: * * *

(7)(H) **Public health and safety.*** * *
(xi) Provide for the health of the inhabitants of the municipality and do all things necessary or desirable to secure and promote the public health;

(8) **The environment.**
(A) Provide for the protection and improvement of the environment including, but not limited to, coastal areas, wetlands and areas adjacent to waterways in a manner not inconsistent with the general statutes; * * * .

It is to be noted that to accomplish the provision of §§7-148(c)(7)(xi) and (c)(8)(A), the "Town" is to "Regulate." Such regulation must be by ordinance, and ordinances require the participation of the full Board. Additionally, according to C.G.S. §7-12b, the Board will keep records of all meetings.

**Sec. 7-12b. Record of meetings.** The boards of selectmen shall keep an accurate record of all minutes of their meetings which shall be available for public inspection at reasonable times.

The instant Application contains a letter purportedly relating a consensus of three members of the Town of Canaan Board of Selectmen (Town of Canaan Letter, April 28, 2008), but no meeting minutes exist that document a Board vote authorizing and concurring in the sentiments of the letter. Rather, minutes exist (IJ76) that suggest hesitation and a need for public input.

## POINT III

**THE PROPOSED CELL TOWER WILL PRESENT AN UNREASONABLE RISK OF HARM FOR INTERVENOR'S SMALL CHILDREN AND OTHERS SIMILARLY SITUATED BY SITING THE TOWER ANTENNA IN DIRECT LINE-OF-SIGHT WITH THE JAEGER MINOR CHILDREN'S BEDROOMS TO TRANSMIT A CONTINUOUS "RELIABLE SIGNAL" THAT WILL BOMBARD THE CHILDREN 24 HOURS A DAY, 7 DAYS A WEEK, 365 DAYS A YEAR. APPLICANT HAS INTRODUCED NO SUBSTANTIAL EVIDENCE SHOWING THAT THIS CAN BE DONE WITHOUT NEGATIVE IMPACT ON THE CHILDREN AS WELL AS OTHER NEARBY RESIDENTS.**

The FCC candidly acknowledges that more RF radiation research is being done in Europe than in the U.S. [see page 23, infra.]. The Council is therefore urged to consider the results of the following European studies:

> In 2005 a scientific study in Austria of a random cross-section of inhabitants living near cell towers ("base stations") showed that people living for more than one year near the towers experienced headaches, vertigo, palpitations, tremors, hot flashes, sweating, loss of appetite, loss of energy, exhaustion, tiredness, difficulties in concentration, and stress. (IJ34)
>
> In 2003 a scientific study in France of a random cross-section of inhabitants living near cell towers ("base stations") showed that persons living close to cell towers experienced nausea, loss of appetite, visual disturbances and difficulty in moving. Those living within 100 meters of base stations experienced irritability, depressive tendencies, difficulties in concentration, loss of memory, dizziness, and lowering of libido. For persons living in the zone of 100 to 200 meters from base stations, the symptoms experienced included headaches, sleep disruption, feelings of discomfort and skin problems. Beyond 200 meters, the principle symptom was fatigue. (IJ35)
>
> A group of doctors in Bavaria, Germany, reported observations of patients living in the vicinity of cell towers ("base stations") experienced the following symptoms: sleep disturbance, tiredness, headache, restlessness, lethargy, irritability, inability to concentrate, forgetfulness, depression, impaired hearing, dizziness, nose bleeds, visual disturbances, joint and muscle pains, palpitations, increased blood pressure, hormone disturbances, nocturnal sweating and nausea. (IJ36)
>
> In 2003, in a double-blind study conducted in the Netherlands of subjective complaints of persons exposed to wireless signals, found a statistically significant relation between wireless signal and cognitive impairment including anxiety, inadequacy, reaction time, visual selection, and found such effects in all samples. (IJ37)

In 2003 a scientific study in Spain of persons exposed to wireless signals for more than six hours a day, seven days a week, at power levels far below safety guidelines experienced symptoms such as fatigue, irritability, headache, nausea, appetite loss, discomfort, gait difficulty, sleep disturbance, depression, difficulty in concentration, memory loss, dizziness, skin alterations, visual dysfunction, auditory dysfunction and cardiovascular alterations. (IJ38)

In 2004 a scientific study in Sweden concluded that there was an increase in malignant melanomas of the skin related to pulsed signals from FM broadcasting antennas in Sweden, Norway and Denmark attributed to impairment of the skin repair mechanism by electronic radiation. (IJ39)

In 2000 as a result of scientific studies in the United Kingdom, the Department of Health recommended a "precautionary approach," to the placement of base stations "until more research findings become available." (IJ40)

In 2004 the International Association of Firefighters (IAFF) reported that some firefighters with cell towers currently located on their stations are experiencing symptoms that "put our first responders at risk." The IAFF specifically referred to headaches, slow response and clouded ability to make decisions caused by "a sort of brain fog" they attributed to the presence of these cell towers. At their 2004 annual convention, the IAFF members passed a resolution to study the health effects of cell towers on fire stations and urged a moratorium on the placement of new cell towers on fire stations until the completion of the study. (IJ41)

In 2006 a group of scientists meeting at Benevento, Italy adopted a resolution urging a "precautionary approach" to the exposure of people to EMF and RF radiation. The resolution specifically stated: "Based on our review of the science, biological effects can occur from exposures to both extremely low frequency fields (ELF EMF) and radiation freqency fields (RF EMF)." The scientists added that "epidemiological and laboratory studies that show increased risks for cancers and other diseases from occupational exposures to EMF cannot be ignored." (IJ43)

In 2007, The Sunday Times in the United Kingdom reported that study of sites around mobile phone masts show "high incidences of cancer, brain haemorrhages, and high blood pressure within a radius of 400 yards of mobile phone masts." The news report stated "a quarter of the 30 staff at a special school within sight of the 90 ft high mast have developed tumors since 2000, while another quarter have suffered significant health problems." (IJ44)

A statement filed by the EMR Policy Institute in this proceeding under date of August 25, 2008 attaches a report on a study conducted at the request of the Federal Agency for radiation protection in Germany based on data of approximately 1,000 patients showing that the proportion of newly developing cancer cases was significantly higher among those patients who had lived during the past ten years at a distance of up to 400 metres from a cellular transmitter site, compared to patients living further away. The patients

> living within 400 metres tended to develop cancers at a younger age, and the risk of developing cancer for those living within 400 metres of the cell tower was three times higher than the rate of developing cancer for those living at a greater distance. (Ex. E to EMRPI August 25, 2008 statement)

Such scientific findings and the concern they cause to individual residents are reflected in the signatures collected on the petitions submitted by Intervenor Jaeger at IJ 48, signed by residents of Falls Village.

Additional concern was expressed in person by public witnesses at the Public Participation section of the Hearing held on July 1, 2008 in the Town of Canaan.

Such publicly expressed concern constitutes sufficient "substantial evidence" to support the denial of the Application.

The U.S. Court of Appeals for the Eleventh Circuit held in Preferred Sites, LLC v. Troup County that where no public opposition was heard in the public hearing considering the tower application, and no articulated reasons in a petition, there was no "substantial evidence" for denial of an application. Preferred Sites, LLC v. Troup County, 296 F.3d 1210, 1218 (11th Cir. 2002) Here, exactly the reverse is the case.

Here, not only did individual citizens voice opposition during the public participation hearing before the Siting Council on Docket 360, there were also articulated reasons for opposition in the submitted petition signed by close to eighty persons (IJ48). Those citizen concerns emphasize the relevance of the European studies submitted by Intervenor Jaeger for the Council's consideration. Those studies address many of the real public concerns about the unknown effects of RF emissions on organic life. They constitute substantial evidence which the Council now has a legal obligation to consider on the merits under the "substantial evidence" standard of review.

## POINT IV

**SINCE THE FCC SAFETY REGULATIONS DO NOT ADDRESS NON-THERMAL BIOLOGICAL EFFECTS, IT IS THE SITING COUNCIL'S DUTY TO PROTECT CONNECTICUT CITIZENS FROM ANY SUCH POTENTIAL HEALTH RISKS BY APPLYING PRUDENT AVOIDANCE AND THE PRECAUTIONARY PRINCIPLE ADVOCATED BY THE INTERNATIONAL BODY OF SCIENTISTS IN THE BENEVENTO RESOLUTION. THE OBVIOUS WAY TO DO THIS IS BY ADOPTING A 'PRUDENT AVOIDANCE' BUFFER ZONE AROUND SCHOOLS AND RESIDENCES LEAST 1500 FEET.**

(CSC Legal Issue Numbers 3 and 6)

C.G.S. Section 16-50p(a)(3)(B) requires the Council to file an opinion addressing "the probable environmental impact of the facility...on...public health and safety...."

TCA preemption of this issue is far from absolute. The Federal Courts have already carved out some of the circumstances in which consideration of RFR by a state or local agency is not preempted by the TCA. One is where a state or municipality bases its choice between two sites for the construction of a wireless telecommunications tower in order to minimize the level of RFR that would affect the surrounding area; i.e., the scientific principle of "prudent avoidance." New York SMSA Limited Partnership v. Town of Clarkstown, 99 F.Supp. 2d 381 (S.D.N.Y. 2000). The second is where a state or local governmental entity acts in a proprietary, as opposed to a regulatory, capacity. Sprint v. Spectrum L.P. v. Mills, 283 F.3d 404 (2d Cir. 2002)(preemption does not bar a school district from imposing conditions regarding RFR emissions in the lease of its own property to a wireless telecommunications provider).

Here, the applicant has failed to offer any alternative site to give the CSC an opportunity to satisfy the "prudent avoidance" principle, and the application should be denied on that basis alone.

Likewise, the application should be denied because the Town's taxpayers were not given a chance to consider and impose conditions regarding RFR emissions from the FVVFD site,

based on the Town's reversionary interest under the original land gift. In considering the Town's reversionary proprietary interest, the Town taxpayers should be fully informed about all of the terms of the Cellco lease, including the limit on liability insurance coverage to only $1 million -- barely enough to cover legal fees if the Town (as reversionary owner and/or provider of FVVFD funding) were to be named as a defendant in a tort suit claiming the cell tower was the proximate cause of terminal cancer contracted by a nearby resident.

**Legislative History of the Telecommunications Act of 1996** [4]

The legislative history of the preemption provision in the Telecommunications Act shows that the FCC has failed to carry out its clear Congressional mandate, and that the purpose behind the preemption provision no longer exists. Preemption, in short, has become a dead letter -- a nullity.

The House Committee on Commerce expressly stated that it was, and is, the Commission's responsibility to adopt "uniform, consistent requirements, with adequate safeguards of the public health and safety," and that these were, and are, to be "established as soon as possible." (H.R. Report No. 104-204, p. 94) (Emphasis added.)

While the original FCC guidelines may have been "adequate safeguards of the public health and safety" under the existing state of scientific knowledge in 1996 (based on thermal effects), that is certainly no longer the case. The post-hearing statement filed in this proceeding by EMRPI outlines a series of unmet research needs that have been identified by Federal agencies and their expert consultants, including the National Academy of Sciences, which show that the 1996 FCC regulations no longer provide "adequate safeguards of the public health and safety" from RF emissions today. The FCC's persistent obstinacy (and apparent fear) in not initiating independent adequately-funded and well-conducted up-to-date research into RFR

effects invalidates the statutory preemption clause by removing its underlying premise -- that the FCC guidelines must provide "adequate safeguards" established "as soon as possible." They no longer do.

The Congressional mandate to the FCC to set and keep safeguard standards current is not a casual comment buried in the Act's legislative history, but is reiterated for emphasis on page 95 of House Report 104-204:

"The Committee believes the Commission rulemaking on this issue (ET Docket 93-62) should contain adequate, appropriate and necessary levels of protection of the public, and needs to be completed expeditiously." Plainly this was intended to be a continuing responsibility.

**Wildlife Protection**

The House Report also shows that protection of wildlife was and is a priority Congressional concern, and one that overrides the FCC's safety regulations:

"....Yellowstone National Park or a pristine wildlife sanctuary, while perhaps prime sites for an antenna and other facilities, are not appropriate [tower sites] and use of them would be contrary to environmental, conservation, and public safety laws." (H.R. Report 104-204 at p. 95) (Emphasis added.) In applying FCC guidelines, Congress plainly intended exceptions to be made where environmental, conservation, and public safety values are at stake.

**"To The Extent That" Also Limits Preemption** [4]

Why did Congress choose the phrase "to the extent that" in defining the preemptive effect of FCC safety standards? The answer appears to be based on House Report No. 104-204, in the discussion in Section 107 on "Facilities Siting."

What the House Report says (at page 94) is this: "The siting of facilities cannot be denied on the basis of Radio Frequency (RF) emission levels which are in compliance with Commission RF emission regulated levels."

In short, the Connecticut Siting Council (along with all other state and local agencies) is not preempted from denying the siting of facilities on the basis of factors that are not based on the FCC's regulated RF emission levels.

It is undisputed that the FCC does not regulate RF emission levels on the basis of the length of exposure, or non-thermal effects, or age or other characteristics of the persons exposed.

Until such time as the FCC regulates RF emissions based on these factors and others like them, state and local agencies have a public duty to prevent harm to the public from unregulated emission levels of unknown risk of potential harm.

To understand this issue of regulatory coverage, think of the TCA preemption provision as a traffic signal: just because the FCC has given a licensee a "green light" to build and operate a tower at a certain frequency and power level, does not mean the licensee is also free to drive on the wrong side of the road, ride on a sidewalk, crash into other vehicles, or run over small children. It just means the licensee cannot be prevented by state and local government from proceeding when the emission level light is "green" on that ground alone. Any other harmful behavior by the licensee is left for local police powers to deal with. Most agencies have thought their authority was limited to aesthetic issues, but the statutory language leaves open all considerations "to the extent that" they are not covered by the FCC guidelines -- as the House Report's reference to "environment, conservation, and public safety laws" (supra.) makes clear.

Here non-thermal biological effects are the equivalent of the wrong side of the road; the sidewalk; other vehicles; and small children. They are not regulated by the FCC and so must be regulated by the local police agency -- here, the CSC.

Nothing prevents a state or local government from protecting against these threats to public health and safety unless and until the FCC itself issues covering regulations.

A perfect example of a non-preempted restriction of wireless transmissions is the establishment of a local buffer zone -- e.g.: no tower may be built or operated closer than 1500 feet from schools, playgrounds, and residences. Until the FCC itself adopts a different buffer zone based on valid independent research, state and local governments are free -- nay, obligated -- to do so.

Local siting agencies may not be arbitrary and capricious; they must base their actions on substantial evidence; they must give their reasons in writing; and they must not abuse discretion -- but they are free to act "to the extent that" the FCC has not already done so.

**The FCC's Abandonment and Nullification of the TCA Preemption Provision** [3, 6]

The legislative history of the Telecommunications Act of 1996 shows that Congress granted absolute preemption to the FCC's Safety Regulations on condition that the agency adopt and maintain adequate public health protection standards; that the agency do so "expeditiously"; and that it keep its standards up-to-date and current, based on valid scientific research.

A close examination of the FCC's current public statements on "Radio Frequency Safety" shows how far the FCC has strayed from -- and defied -- this Congressional charge.

The following FCC statements were taken directly from the FCC's own website while this brief was being written. They appear in the FCC public information document called

Frequently Asked Questions about Radio Frequency Safety. These statements demonstrate that the FCC has done nothing since its 1996 adoption of regulations:

(1) to initiate continuing scientific research into RF biological effects;

(2) to update its guidelines based on significant findings of FDA-sponsored studies; EPA inter-agency council recommendations; or studies from European countries -- all of which show that the FCC's safety regulations are obsolete;

(3) to offset the telecom industry's domination and control of RF research in the U.S.; or

(4) to advise state and local agencies to protect citizens against "inconclusive" findings of scientific studies raising the possibility of increased cancer and other health risks for school children and persons living near tower sites.

**FCC's Acknowledgement of its Failure to Provide "Adequate" Protections for Public Health and Safety Against Possible Adverse Effects of RF Radiation** [3,6]

**(a) Human Health Hazard**

In its RF Safety FAQs[1] the FCC asks the following question:

**"WHAT BIOLOGICAL EFFECTS CAN BE CAUSED BY RF ENERGY ?"**

The second half of its answer to this FAQ is this:

"At relatively low levels of exposure to RF radiation, i.e., levels lower than those that would produce significant heating, the evidence for production of harmful biological effects is ambiguous and unproven. Such effects have sometimes been referred to as "non-thermal" effects. Several years ago research reports began appearing in the scientific literature describing the observation of a range of low-level biological effects. However, in many cases further experimental research has been unable to reproduce these effects. Furthermore, there has been no determination that such effects constitute a human health hazard. It is generally agreed that further research is needed to determine the generality of such effects and their possible relevance, if any, to human health. In the meantime, standards-setting organizations and government agencies continue to monitor the latest experimental findings to confirm their validity and determine whether changes in safety limits are needed to protect human health."

(Emphasis added.)

[1] www.fcc.gov/oet/rfsafety/rf-faqs.html

"No determination," by whom? This is a matter of scientific research, not an administrative proceeding. A number of studies have found that some "non-thermal" effects do present potential human health hazards. Significantly, there has been "no determination" that non-thermal effects do not constitute a human health hazard. Until there is definitive scientific proof one way or the other, the responsible public agency response is to urge caution and to avoid unnecessary exposure of schools and homes to RF radiation from nearby cell sites.

**(b) Cancer Risk**

This is how the FCC deals with the public concern over RFR and cancer:

> **"CAN RADIOFREQUENCY RADIATION CAUSE CANCER?"**
>
> "Some studies have also examined the possibility of a link between RF and microwave exposure and cancer. Results to date have been inconclusive. While some experimental data have suggested a possible link between exposure and tumor formation in animals exposed under certain specific conditions, the results have not been independently replicated. In fact, other studies have failed to find evidence for a causal link to cancer or any related condition. Further research is underway in several laboratories to help resolve this question. The Food and Drug Administration has further information on this topic with respect to RF exposure from mobile phones at the following Web site: www.fda.gov/cdrh/phones/index.html."
>
> (Emphasis added.)

'Inconclusive' is not a proper response by an agency charged with providing 'adequate' safety standards. If there is any possibility that RF radiation can cause cancer, the FCC's standards must make provision to avoid that result. The findings by German doctors that cancer rates have trebled within 400 meters of a cell tower in that country certainly requires the FCC to recommend using that distance as a minimum buffer zone around cell sites -- whether the agency

considers the study 'inconclusive' or not -- it is a warning sign that must be heeded until disproven.[2]

**(c) Current Research**

The FCC FAQs document also asks the following question:

**"WHAT RESEARCH IS BEING DONE ON RF BIOLOGICAL EFFECTS?"**

In response, the FCC admits that the agency itself is doing nothing, and has left the field to the telecom industry -- whose self-interests are diametrically opposed to the public interest in restricting the location of cell sites.

> "At the present time, most of the non-military research on biological effects of RF energy in the U.S. is being funded by industry organizations such as Motorola, Inc. Relatively more research is being carried out overseas, particularly in Europe."
>
> (Emphasis added.)

**(d) Obsolete Guidelines**

In response to this question:

**"WHY HAS THE FCC ADOPTED GUIDELINES FOR RF EXPOSURE?"**

the FCC avoids any mention of the Congressional requirement that the FCC maintain "adequate safeguards of the public health and safety," and that it do so "expeditiously":

> "Human exposure to RF radiation emitted by FCC-regulated transmitters is one of several factors that must be considered in such environmental evaluations. In 1996, the FCC revised its guidelines for RF exposure as a result of a multi-year proceeding and as required by the Telecommunications Act of 1996."
>
> (Emphasis added.)

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[2] Cellco has calculated that Intervenor Jaeger's home is approximately 400 meters from the proposed cell site.

**(e) Cell Towers Near Homes and Schools**

This is the FCC's head-in-the-sand response to the European studies recommending 'prudent avoidance' when locating towers near homes and schools:

> **"ARE CELLULAR AND OTHER RADIO TOWERS LOCATED NEAR HOMES AND SCHOOLS SAFE FOR RESIDENTS AND STUDENTS?"**
>
> "As discussed above, radiofrequency emissions from antennas used for wireless transmissions such as cellular and PCS signals result in exposure levels on the ground that are typically thousands of times less than safety limits. These safety limits were adopted by the FCC based on the recommendations of expert organizations and endorsed by agencies of the Federal Government responsible for health and safety. Therefore, there is no reason to believe that such towers could constitute a potential health hazard to nearby by residents or students."
>
> (Emphasis added.)

This circular argument constitutes a total abandonment of agency responsibility to adopt or update "adequate" health and safety standards in the face of the overwhelming scientific evidence from other countries, combined with the statements of inadequacy of the FCC exposure levels in the NAS January, 2008 report (referred to in the EMRPI statement).

The Council is referred specifically to the research recommendations by the National Academy of Sciences; The National Institute of Environmental Health Sciences, National Toxicology Program; and the German Government's Federal Agency for Radiation Protection -- all summarized in the EMRPI statement.

**Nullification of FCC Preemption**

The necessary result of the FCC's failure and refusal to carry out the Congressional conditions for maintaining the preemption of its Safety Regulations is to nullify their preemptive effect. The Tenth Amendment now takes over to fill the regulatory vacuum left by the FCC's failure, and state and local governments are free to make their siting decisions on cell antennas

based on their retained police power to protect the health, safety and welfare of the state's citizens against risks not addressed by the FCC's obsolete 1996 guidelines.

In Massachusetts v. E.P.A., several states petitioned the Supreme Court to review the mandate under The Clean Air Act to the E.P.A. to regulate emissions of four greenhouse gases. Among the issues presented was whether the E.P.A. had the authority to refuse to regulate the emissions based on political and other considerations unrelated to the endangerment to human health and welfare. Justice Stevens wrote for the majority that ignoring scientific findings and passing the buck would not lift the Congressional command to regulate:

> On October 20, 1999, a group of 19 private organizations [FN omitted] filed a rulemaking petition asking EPA to regulate "greenhouse gas emissions from new motor vehicles under §202 of the Clean Air Act." App. 5. Petitioners maintained that 1998 was the "warmest year on record"; that carbon dioxide, methane, nitrous oxide, and hydrofluorocarbons are "heat trapping greenhouse gases"; that greenhouse gas emissions have significantly accelerated climate change; and that the IPCC's 1995 report warned that "carbon dioxide remains the most important contributor to [man-made] forcing of climate change." *Id.*, at 13 (internal quotation marks omitted). The petition further alleged that climate change will have serious adverse effects on human health and the environment. *Id.*, at 22–35. * * *
>
> EPA [cannot] avoid its statutory obligation by noting the uncertainty surrounding various features of climate change and concluding that it would therefore be better not to regulate at this time. See 68 Fed. Reg. 52930–52931. If the scientific uncertainty is so profound that it precludes EPA from making a reasoned judgment as to whether greenhouse gases contribute to global warming, EPA must say so. That EPA would prefer not to regulate greenhouse gases because of some residual uncertainty * * * is irrelevant. The statutory question is whether sufficient information exists to make an endangerment finding.
>
> In short, EPA has offered no reasoned explanation for its refusal to decide whether greenhouse gases cause or contribute to climate change. Its action was therefore "arbitrary, capricious, ... or otherwise not in accordance with law." 42 U. S. C. §7607(d)(9)(A). We need not and do not reach the question whether on remand EPA must make an endangerment finding, or whether policy concerns can inform EPA's actions in the event that it makes such a finding. Cf. Chevron U. S. A. Inc. v. Natural Resources Defense Council, Inc., 467 U. S. 837, 843–

844 (1984). We hold only that EPA must ground its reasons for action or inaction in the statute.

Massachusetts v. EPA, 549 U.S. 497 (2007)
(Emphasis added.)

Where a Federal regulatory agency has refused to comply with a statutory command, especially in the arena of "public health and safety" the state itself may not shirk its duty to do so under the Tenth Amendment.

## POINT V

## CELLCO DOES NOT DISPUTE EVIDENCE OF THE PRESENCE OF ALMOST 200 PROTECTED MIGRATORY BIRD SPECIES, INCLUDING MULTIPLE SIGHTINGS OF BALD EAGLES AND THEIR OFFSPRING, WITHIN THE PROPOSED CELLCO COVERAGE AREA. THE SITING COUNCIL HAS A STATUTORY MANDATE UNDER STATE LAW TO PROTECT ENDANGERED, THREATENED AND LISTED SPECIES, AS WELL AS UNDER THE FEDERAL MIGRATORY BIRD TREATY ACT AND THE BALD EAGLE PROTECTION ACT, BOTH OF WHICH TAKE PRECEDENCE OVER THE TELECOMMUNICATIONS ACT OF 1996.

(CSC Legal Issue Numbers 4, 5 and 9)

Shortly after the Congressional enactment of the Migratory Bird Treaty Act (MBTA), Justice Oliver Wendell Holmes, in an early test of the preemption of international law over a state's authority, found that the treaty protected wild birds even against a state, and that the statute was a valid extension of the treaty power. The State of Missouri had challenged a U.S. Game Warden's authority over birds in the state. The high Court found that the federal enabling statute (MBTA) was a valid exercise of Congress's powers under the necessary and proper clause, and that the treaty preempted state sovereignty under the Tenth Amendment as a means of carrying out '"matters of the sharpest exigency for the national wellbeing'". State of Missouri v. Holland, 252 U.S. 416, 433 (1920), citing Andrews v. Andrews 188 U.S. 14, 33. Justice Holmes held the Migratory Bird Treaty supreme law protecting national interests:

To answer this question it is not enough to refer to the Tenth Amendment, reserving the powers not delegated to the United States, because by Article 2, Section 2, the power to make treaties is delegated expressly, and by Article 6 treaties made under the authority of the United States, along with the Constitution and laws of the United States made in pursuance thereof, are declared the supreme law of the land. If the treaty is valid there can be no dispute about the validity of the statute under Article 1, Section 8, as a necessary and proper means to execute the powers of the Government. The language of the Constitution as to the supremacy of treaties being general, the question before us is narrowed to an inquiry into the ground upon which the present supposed exception is placed.

It is said that a treaty cannot be valid if it infringes the Constitution, that there are limits, therefore, to the treaty-making power, and that one such limit is that what an act of Congress could not do unaided, in derogation of the powers reserved to the States, a treaty cannot do. * * * The treaty in question does not contravene any prohibitory words to be found in the Constitution. The only question is whether it is forbidden by some invisible radiation from the general terms of the Tenth Amendment. * * *

Wild birds are not in the possession of anyone; and possession is the beginning of ownership. The whole foundation of the State's rights is the presence within their jurisdiction of birds that yesterday had not arrived, tomorrow may be in another State and in a week a thousand miles away. * * *

Here a national interest of very nearly the first magnitude is involved. It can be protected only by national action in concert with that of another power. The subject matter is only transitorily within the State and has no permanent habitat therein. But for the treaty and the statute there soon might be no birds for any powers to deal with. We see nothing in the Constitution that compels the Government to sit by while a food supply is cut off and the protectors of our forests and our crops are destroyed. It is not sufficient to rely upon the States. The reliance is vain, and were it otherwise, the question is whether the United States is forbidden to act. We are of the opinion that the treaty and statute must be upheld.

State of Missouri v. Holland, 252 U.S. 416, 432-435 (1920)
(Emphasis added.)

Article VI of the U.S. Constitution (Supremacy Clause) mandates that all treaties are the Supreme law of the land -- which includes treaties protecting migratory birds.

In pertinent part:

This Constitution, and the laws of the United States which shall be made in pursuance thereof; and all treaties made, or which shall be made, under the authority of the United

States, shall be the supreme law of the land; and the judges in every state shall be bound thereby, anything in the Constitution or laws of any State to the contrary notwithstanding.

(United States Constitution, Article VI, excerpted.)
(Emphasis added.)

The enactment of the Telecommunications Act of 1996 did nothing to impair the effectiveness of the MBTA or its companion, the Bald Eagle Protection Act. House Report No. 104-204 specifically recognized that the savings clause in the TCA guaranteed that existing Federal law would not be affected by its provisions except as specifically stated in the language of the law. "Subsection (c) provides that nothing in the Act shall be construed to modify, impair, or supersede any other Federal law other than law expressly referred to in this Act." (p. 124) (Emphasis added.)

In addition, C.G.S. §26-310 (Environmental Protection Act) obligates all state agencies in Connecticut to protect wildlife, a provision which is not preempted by the TCA because the TCA preemption applies only to adverse effects on human health. The Siting Council's role as a state agency imposes the additional affirmative legal duty, as on all state agencies, to protect wildlife. (As to the importance of protecting these resources, See Connecticut Environmental Protection Act Sections 22a-1 – 22a-2a; 22a-36 – 22a-45; 23-5a – 23-5g; 23-8; 23-66; 26-303 – 26-314.) This duty is entirely consistent with the Migratory Bird Treaty Act and the Bald Eagle Protection Act, and they, along with the state statute bind the Connecticut Siting Council.

Section 26-310 provides:

"Sec. 26-310. Actions by state agencies which affect endangered or threatened species or species of special concern or essential habitats of such species. (a) Each state agency, in consultation with the commissioner, shall conserve endangered and threatened species and their essential habitats, and shall ensure that any action authorized, funded or performed by such agency does not threaten the continued existence of any endangered or threatened species or result in the destruction or adverse modification of habitat designated as essential to such species, unless such agency has been granted an

exemption as provided in subsection (c) of this section. In fulfilling the requirements of this section, each agency shall use the best scientific data available."

(Emphasis added.)

The FCC's regulations concerning RF emissions are specifically limited to human health. (See description of the FCC regulations on the FCC's own website, headed "RF SAFETY PROGRAM" and found at http://www.fcc.gov/oet/rfsafety/rf-faqs.html#Q10. )

The FCC states that its RF emissions rules "are designed to protect public health" and to constitute "limits for human exposure to RF emissions."

The Federal Courts have squarely held that the FCC's preemptive rules are limited to "health risks." Cellular Phone Taskforce, 205 F.3d 82, at 88 (2d Cir. 2000):

> The Act preempted state and local governments from regulating the placement, construction or modification of personal wireless service facilities on the basis of the health effects of RF radiation where the facilities would operate within the levels determined by the FCC to be safe.
>
> (Emphasis added.)

In its Application under Docket 360 submitted on March 28, 2008, Cellco Partnership d/b/a Verizon asserts under "Environmental Reviews and Agency Comments":

> The USFWS has determined that there are no federally-listed or proposed, threatened or endangered species or critical habitat known to occur at the Property that might impact the Falls Village Facility (See Attachment 11 - USF&W response letter dated October 4, 2007).
>
> In its comment letter dated November 15, 2007, the DEP stated that there are records of a State Endangered Lota Lota (burbot) from the "nearby Hollenbeck River". The DEP also stated that there were records for Special Concern species (Savannah Sparrow) from this part of Canaan.
>
> (Application at p. 14)

The section goes on to say that certain state commission reviews minimize the impact of the site, saying in conclusion: "This review by state administrative agencies furnishes ample expert opinion on the potential environmental impacts from the Falls Village Facility, in the context of the criteria which the Council must consider." (Emphasis added.)

Nowhere does Cellco Verizon mention the existence of such major environmental considerations as UCONN's Department of Ecology and Evolutionary Biology report (Intervenor Exhibit IJ 30) citing what they believe to be "the most significant ecological community in the State of Connecticut and arguably one of the most important conservation targets in the Northeast" (Emphasis added.) citing endangered butterflies (the Columbine Duskywing and Northern Metalmark, IJ 32, IJ 33), or bird nesting areas and recognized wildlife habitats including Robbins Swamp, a significant inland fresh water wetland, extensive state preserves or state-listed amphibians including the blue spotted salamander -- observation of which is already a matter of record on this Docket, and a study of the effects of radio frequencies on which is offered by Intervenor Jaeger (see IJ 26, Balmori Study on Amphibians) -- all of which are located within the tower's proposed coverage area. The Council has a statutory obligation to consider such evidence.

Nor does the Applicant mention the applicability of the International Migratory Bird Treaty, the U.S. Migratory Bird Treaty Act or the Bald Eagle Protection Act. In the absence of evidence offered by the Applicant, the Council must make independent inquiry into the applicability of these laws to the species found in the unique natural area in the vicinity of the proposed tower, in fulfillment of the Council's specific statutory mandate. The undisputed evidence of sightings of such protected birds requires the Council to deny Cellco's application.

The white stork study marked and pre-filed by Intervenor Jaeger at Exhibit IJ 6 shows that increased distance from the proposed tower may reduce the impact of Cellco's transmissions on nesting birds and other wildlife, but the distances at which harmful effects are documented are not great -- and include Intervenor Jaeger's property just across the road from the tower site. The Council has an obligation to consider such evidence of biological harm.

The Migratory Bird Treaty Act of 1918 U.S.C Title 16, Chapter 7, Subchapter II, section 703 provides:

> [I]t 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, possess, offer for sale, sell, offer to barter, barter, offer to purchase, purchase, deliver for shipment, ship, export, import, cause to be shipped, exported, or imported, deliver for transportation, transport or cause to be transported, carry or cause to be carried, or receive for shipment, transportation, carriage, or export, any migratory bird, any part, nest, or eggs of any such bird, or any product, whether or not manufactured, which consists, or is composed in whole or part, of any such bird or any part, nest, or egg thereof, included in the terms of the conventions between the United States and Great Britain for the protection of migratory birds concluded August 16, 1916 (39 Stat. 1702), the United States and the United Mexican States for the protection of migratory birds and game mammals concluded February 7, 1936, the United States and the Government of Japan for the protection of migratory birds and birds in danger of extinction, and their environment concluded March 4, 1972 and the convention between the United States and the Union of Soviet Socialist Republics for the conservation of migratory birds and their environments concluded November 19, 1976.
>
> (Emphasis added.)

**The Council's Statutory Obligation to Protect Endangered Species**

General Statutes Section 26-310 requires state agencies to protect endangered or threatened species or species of special concern and their essential habitats:

> **Sec. 26-310. Actions by state agencies which affect endangered or threatened species or species of special concern or essential habitats of such species.** (a) Each state agency, in consultation with the commissioner, shall conserve endangered and threatened species and their essential habitats, and shall ensure that any action authorized, funded or performed by such agency does not threaten the continued existence of any endangered or threatened species or result in the destruction or adverse modification of habitat designated as essential to such species, unless such agency has been granted an exemption as provided in subsection (c) of this section. In fulfilling the requirements of this section, each agency shall use the best scientific data available.
>
> (Emphasis added.)

The sole mention of the presence of any state-listed species in the affected area in the Cellco Application is that on page 14, the State Endangered Lota lota (burbot) and the state Special Concern species Savannah Sparrow.

But State DEP NDDB maps (Intervenor Jaeger marked pre-filed Exhibits IJ 9, IJ 10, IJ 11) conflict with Cellco's limited inquiry and disclosure, and according to the Connecticut Chapter of the Nature Conservancy, among the state-listed species in the Robbins Swamp-Hollenbeck River area are:

Blue Spotted Salamander (Ambystoma laterale)

Red-bellied Snake (Storeria occipitomaculata)

Northern Leopard Frog (Rana pipiens)

Cerulean Warbler

Bobolink

Meadowlark

Raven

Burbot (Lota lota).

The Connecticut Siting Council therefore has notice of the presence of more species than just the Lota lota, and it must consider the effects of the proposed tower on all of these species. Statutory language such as "shall conserve" is not precatory. It is mandatory.

**Substantial Evidence of Harm to Nesting Birds**

The Council has before it marked and pre-filed by Intervenor Jaeger substantial evidence that major harm is done to nesting birds in habitats close to cell towers (Exhibit IJ 6, Balmori Study of White Storks, 2005. See also IJ 5, Study on House Sparrows, 2007.). The highlights of that evidence are:

> The numeric tendency of the populations of birds is of particular interest in the conservation of nature....Animals are very sensitive electrochemical complexes that communicate with their environment through electrical impulses. Ionic currents and electric potential differences exist through the cellular membranes and corporal fluids. The intrinsic electromagnetic fields from the biological structures are characterized by

certain specific frequencies that can be interfered with by the electromagnetic radiation, through induction and causing modification in their biological responses....The low intensity pulsed microwave radiation from cellsites produces subtle athermal influences in the living organisms...Some effects are manifested exclusively with a certain power density, while others are manifested after a certain duration of the irradiation, which indicates long-term cumulative effects....Research has shown such effects on the living organisms at molecular and cellular levels on immune processes, in DNA, on the nervous, cardiac, endocrine, immune and reproductive systems, modification of sleep and alteration of the cerebral electric response, increase of the arterial pressure and changes in the heart rhythm, and an increase in the permeability of the blood brain barrier.

(Exhibit IJ 6, page 110)
(Footnotes Omitted. Emphasis added.)

## CONCLUSION

There are at least four separate reasons why Cellco's application for certification to construct a cell tower along Route 7 in Falls Village should be denied:

1. The Applicant did not establish a public need for the tower -- it offered no alternative sites nor any justification for not co-locating or entering a roaming agreement with one of the four existing providers that cover the area.

2. The Applicant made only a cosmetic attempt to consult with the municipality -- avoiding a town meeting and any confrontation with town residents deeply concerned about the tower proposal.

3. The application did not satisfy the need for "prudent avoidance" to protect children and nearby residents from the health risks increasingly identified in recent scientific studies in Europe.

4. The Applicant acknowledges the presence of large numbers of protected migratory birds -- along with at least two endangered species -- in its proposed coverage area, which automatically raises a Federal barrier against RF radiation emissions that will result in bird and wildlife deaths and infertility.

For all of the foregoing reasons, Intervenor Jaeger requests that the Council deny the Cellco application under Docket 360.

* * *

SPECIAL NOTE: The foregoing discussion includes, to greater or lesser degree, our responses to the questions raised in Chairman Caruso's memorandum of August 14, 2008. If any of these responses appears to the Council to be insufficient, opaque, or otherwise unsatisfactory, we invite further inquiry and will attempt to clarify our responses accordingly.

Respectfully submitted,

Gabriel North Seymour
GABRIEL NORTH SEYMOUR P.C.
Counsel to Intervenor Jaeger
Juris No. 424367
200 Route 126
Falls Village, CT 06031
Tel: 860-824-1412
Fax: 860-824-1412
Email: certiorari@earthlink.net

WHITNEY NORTH SEYMOUR, JR.
*Attorney pro hac vice*
425 Lexington Avenue, Room 1721
New York, NY 10017
Tel: 212-455-7640
Fax: 212-455-2502
Email: wseymour@stblaw.com

Attorneys for Intervenor Dina Jaeger

Falls Village, CT, September 2, 2008

## CERTIFICATION

I certify that on September 2, 2008, an original and twenty copies of the foregoing Post-Hearing Brief Submitted on Behalf of Intervenor Jaeger were filed at the Connecticut Siting Council offices at 10 Franklin Square in New Britain, Connecticut, and that a copy was mailed prepaid first class mail to the following:

Sandy Carter, Regulatory Manager
Verizon Wireless
99 East River Drive
East Hartford, CT 06108

Kenneth C. Baldwin, Esq.
Robinson & Cole, LLP
280 Trumbull Street
Hartford, CT 06103-3597

Gabriel North Seymour

September 2, 2008

# Understanding Wireless Telephone Coverage Areas

**FCC Consumer Facts**

## Background

Wireless telephones work by communicating via radio waves using a system of base stations (sometimes known as "cell sites") that send and receive calls and relay them to other networks, like the Public Switched Telephone Network (PSTN). Because wireless phones communicate using radio waves, their reliability is influenced by many factors, such as the proximity of the phone to the base station with which it is communicating, physical obstacles, and interference or noise. Noise refers to unwanted electronic signals introduced by circuit components or natural disturbances that tend to distort communications. For example, like other radio transmissions, wireless phone calls can be affected by severe weather, large buildings, or other objects between your phone and the nearest base station or antenna that your wireless service provider uses.

## Antennas/Networks

A number of factors can prevent the commencement or completion of a call from a wireless phone. Even when a carrier publishes maps showing coverage in a certain geographic area, a subscriber may not be able to complete a call due to limitations in **topography** (the surroundings), **capacity** (how many callers are communicating with the same cell site at a given time), and **network architecture** (where antennas are located). A dropped call usually occurs when you are on the move and there are too few (or no) cell sites in the area where you are traveling. A dropped call also could result from a weakening of the signal from the cell site that carries your call and/or the failure of the call in progress to be handed off to another cell site. For example, the communication signal between your wireless phone and the cell site could fade significantly and end your call as you drive into a tunnel or walk into a building. The structure blocks the signal. The locations where you cannot make or receive calls due to these limitations are sometimes referred to as "dead zones," "coverage holes," "dead spots," or "obstructed areas."

When many people use a wireless service provider's network at the same time and its **capacity** is strained, other customers trying to connect may hear a **"busy signal"** instead of being able to complete their calls.

## Coverage Maps and Other Coverage Research

Before choosing a wireless service provider or a plan, it is wise to research the various providers to determine the extent of their coverage in the areas that matter most to you. You

APPENDIX A

can research a wireless service providers' coverage area in a number or ways:

- Ask neighbors, colleagues, and friends. You can also visit Internet sites (such as www.deadcellzones.com) that list specific dead spots (submitted by individuals). Information on dead spots is organized by wireless service provider and location.

- Test the wireless service providers' plan and coverage area on a trial basis, if possible. Some wireless providers offer trial periods, during which you can test a phone before you are committed to a service contract and have to pay a significant fee to terminate that contract. Be aware, however, that if you terminate during a trial period or at any other time, most wireless service providers will not refund any activation or usage fees. During the trial period, you may want to test the phone in the areas where you plan to use it most frequently to determine if the actual coverage suits your needs.

- Check out the wireless service providers' coverage map on its Web site and/or in stores where its products are sold. Often these maps show very general coverage for entire regions. The maps usually carry a disclaimer saying they are provided for informational purposes only and that actual coverage may vary. There may be holes where the service provider does not have cell sites or where the topography causes dead zones. With few exceptions, the maps do not indicate signal strength or dead zones. Additionally, these coverage maps are not intended to show whether coverage is provided in obstructed areas, like buildings, tunnels, and underground garages. While wireless service providers often deploy in-building wireless solutions for these areas, any lack of coverage is usually not disclosed.

There is no guarantee that your phone will work in an area, even if it is included on a wireless service providers' published coverage map. Just because a wireless service provider generally advertises service to an area, there may be several reasons why the service is not reliably available in all locations. Although wireless service providers attempt to design their networks to eliminate dropped calls, busy signals, and dead zones, no network is perfect, so coverage breaks within the general coverage areas are still possible. Specific and/or updated information may not be available on maps provided by the wireless service provider, because coverage is frequently changing.

**Roaming**

"Roaming" is the term that describes a wireless phone's ability to make and receive calls outside the home calling area under your service plan. Roaming occurs when a subscriber of one wireless service provider uses the facilities of a second provider. While the subscriber usually has no pre-existing agreement with the second provider to handle calls, the subscriber's provider may have a "roaming agreement" with the second provider. Under that agreement, the second provider agrees to handle calls placed by subscribers of the first provider and vice versa. When your phone is roaming, an indicator light on your phone may display the word "roam." On occasion, your handset will not display a roaming indicator, even though it is in a roaming area. Also, some handset software needs to be updated monthly. Often this can be done by simply pressing a few buttons on the handset. Keeping that software updated can increase reliability and reduce incorrect roaming charges.

Contact your provider for more information about roaming areas, related fees, and software requirements. If your handset signal or the service provider's signal from the nearest antenna is too weak, roaming can occur automatically, even if you are using your phone in your own home calling area. A phone can also go into "roaming mode" if there is a high volume of calls in the area. For example, though you may be surrounded by sites from your

provider, each of your provider's sites may be at its capacity or out of range. Instead of having a call blocked or dropped, your phone might use another provider's site (roam), sometimes at an additional cost to you. Roaming fees are typically charged on a per-minute basis and determined by your service provider.

Many wireless service providers have eliminated these fees in their nationwide pricing plans. All of the major wireless service providers and many others now offer pricing plans that allow consumers to purchase a "bucket" of monthly minutes to use nationwide without incurring roaming charges. You should be aware, however, that wireless service providers define "nationwide" in different ways. For example, some providers define "nationwide" as anywhere in the country, whereas others define it as anywhere within the provider's network. Check with your wireless service provider for information on the availability of plans without roaming charges or other roaming options.

**Emergency Situations**

Some people purchase wireless phones for emergency use only. These people rely on their wireless phones as a vital means of getting help during personal and other emergencies. Remember that during widespread emergencies, the calling volume in particular geographic areas can increase significantly, and a wireless phone call may not go through. When call volume is high and capacity is limited, consider sending a text message. Text messages require much less capacity, so they may go through even if a voice call cannot.

**Researching the Best Coverage for You**

- Determine how you will be using your wireless phone (long distance, emergencies, daily, weekends) to find a plan to best fit your needs.
- Investigate wireless service providers' coverage areas to determine if they provide service where you intend to use the phone most frequently. Be aware that coverage areas shown on maps do not necessarily mean that the wireless service provider's signal in those areas is strong or even available, and that dead zones may exist. Remember that most coverage maps carry the disclaimer that they are provided for general informational purposes only and that actual coverage may vary.
- Ask neighbors, colleagues, and friends who have similar calling patterns about their experiences with different service providers and plans.
- Browse the Internet for Web sites that report dead zones, particularly in areas where you plan to use your wireless phone on a regular basis.
- Because coverage is also affected by the type of handset you use, consider whether a single-mode, dual-mode, or tri-mode handset best suits your calling needs. "Single-mode" handsets can connect to either a digital or an analog network, but not both. "Dual-mode" handsets can be used on both an analog network and one type of digital network. "Tri-mode" handsets can be used on analog and two types of digital networks. Digital networks allow wireless service providers to offer advanced features such as Internet access. ***Note:*** As of midnight on February 18, 2008, cellular telephone companies will not be required to provide analog service. While most wireless telephone users will not be affected by this transition (often called the "analog cellular sunset"), some users may be affected. For more information, see the FCC's consumer advisory at

www.fcc.gov/cgb/consumerfacts/analogcellphone.html.

- Compare plans and prices of several dealers and service providers before deciding on the phone and plan that best suits your needs.
- Take advantage of the trial periods offered by some wireless service providers. A trial is a short period when you can use the phone without having to pay a significant fee to terminate your service contract.
- Consider trying a prepaid plan, which allows you to more easily switch providers if you are not satisfied with the service. If you sign a longer term contract and are not satisfied, you may have to pay a significant termination fee to cancel.
- When a problem arises, call your wireless service provider. If the problem is with the phone itself, you may wish to visit one of the provider's company stores, rather than an independent agent. The staff at a company store may be better equipped to provide a remedy.
- To improve the likelihood that your wireless phone will work in the event of an emergency, always keep your phone battery charged.

**Filing a Complaint with the FCC**

If you have questions or complaints about particular wireless phone plans, the handling of calls by a particular provider, the fees charged, or similar service matters, first try to resolve the matter with the service provider.

If you are unable to resolve the matter directly, you can file a complaint with the FCC. There is no charge for filing a complaint. You can file your complaint using the on-line complaint Form 2000B found on the FCC Web site at www.fcc.gov/cgb/complaints.html. You can also file your complaint with the FCC's Consumer Center by e-mailing fccinfo@fcc.gov; calling 1-888-CALL-FCC (1-888-225-5322) voice or 1-888-TELL-FCC (1-888-835-5322) TTY; faxing 1-866-418-0232; or writing to:

Federal Communications Commission
Consumer & Governmental Affairs Bureau
Consumer Inquiries and Complaints Division
445 12th Street, SW
Washington, D.C. 20554.

**What to Include in Your Complaint**

The best way to provide all the information the FCC needs to process your complaint is to complete fully the on-line complaint Form 2000B. If you do not use the on-line complaint Form 2000B, your complaint, at a minimum, should indicate:

- your name, address, e-mail address, and phone number where you can be reached;
- the telephone and account numbers that are the subject of your complaint;
- the names and phone numbers of any companies involved with your complaint;

- the amount of any disputed charges, whether you paid them, whether you received a refund or adjustment to your bill, the amount of any adjustment or refund you have received, an explanation if the disputed charges are related to services in addition to residence or business telephone services; and

- the details of your complaint and any additional relevant information.

**For More Information**

For information about other telecommunications issues, visit the FCC's Consumer & Governmental Affairs Bureau Web site at www.fcc.gov/cgb, or contact the FCC's Consumer Center using the information provided for filing a complaint.

*For this or any other consumer publication in an accessible format (electronic ASCII text, Braille, large print, or audio) please write or call us at the address or phone number below, or send an e-mail to FCC504@fcc.gov.*

*To receive information on this and other FCC consumer topics through the Commission's electronic subscriber service, click on www.fcc.gov/cgb/contacts/.*

*This document is for consumer education purposes only and is not intended to affect any proceeding or cases involving this subject matter or related issues.*

*03/10/08*

Federal Communications Commission · Consumer & Governmental Affairs Bureau · 445 12th St. S.W. · Washington, DC 20554
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*last reviewed/updated on 03/10/08*



Federal Communications Commission
445 12th Street SW
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More FCC Contact Information...

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Fax: 1-866-418-0232
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