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December 30, 2014

VIA EMAIL AND FEDEX

Board of Supervisors
El Dorado County
330 Fair Lane
Placerville, California 95667

Re: Appeal of Verizon Wireless Application S14-0004
Telecommunications Facility
1521 Lake Vista Lane

Dear Honorable Members of the El Dorado County Board of Supervisors:

We write on behalf of our client Verizon Wireless to ask that you follow the well-reasoned recommendation of planning staff, uphold the unanimous approval of the Planning Commission and deny the appeal by Bob Hablitzel (the "Appellant") of Verizon Wireless's proposed placement of a stealth treepole wireless facility near Lake Vista Lane (the "Approved Facility").

Verizon Wireless has worked diligently over the last four years to identify a location and design that will serve Salmon Falls Road and the vicinity with the least impacts to the community. The preferred alternative involves placing nine antennas on an 85 foot stealth collocatable treepole.

As described below, the Approved Facility fully complies with all requirements for approval under the El Dorado County Code (the "Code"). While Verizon Wireless has submitted substantial evidence to allow the Planning Commission and this Board to make all necessary findings for approval, Appellant fails to provide any evidence that could justify denial of the Approved Facility. Absent substantial evidence for denial, federal law compels approval. We strongly encourage you to follow planning staff's recommendation and affirm the Planning Commission's well-reasoned decision.

I. The Project

The Approved Facility has been thoughtfully designed to minimize aesthetic impacts. Verizon Wireless proposes to erect an 85-foot stealth treepole designed to

resemble a gray pine or digger pine. The treepole will be placed toward the western edge of the 10 acre parcel, away from homes, with the nearest offsite residence over 400 feet away from the Approved Facility. Nine panel antennas will be mounted to the treepole at a height of 78 feet and faux tree branches projecting beyond and above the antennas will provide screening for the antennas. Radio equipment cabinets will be housed in an equipment shelter located next to the treepole, and a standby generator with a 210-gallon diesel tank will provide backup power in case of emergencies. Verizon Wireless's entire facility will be enclosed within a slatted chain link fence. Photosimulations of the Approved Facility are attached as Exhibit A.

A report by Hammett & Edison, Inc., Consulting Engineers, dated June 2, 2014 (the "H&E Report"), attached as Exhibit B, confirms that radio-frequency ("RF") emissions from the facility will fully comply with Federal Communications Commission ("FCC") guidelines. The facility will not generate significant traffic. In short, the Approved Facility will not have significant adverse impacts of any kind.

II. Approved Facility Fully Complies with All Code Requirements

As confirmed in the Planning Commission Staff Report for the November 13, 2014 hearing and in the Planning Commission approval, the Approved Facility meets all requirements for approval under the County's General Plan and the Code. As stated in the findings adopted by the Planning Commission and as evidenced by the plans, photosimulations and reports submitted by Verizon Wireless, the Approved Facility meets all requirements for screening, setbacks and maintenance necessary for approval of a special use permit for a wireless facility in an RE-5 zone. The Planning Commission further concluded that:

> The use will not significantly conflict with the adjacent uses as the ground-support equipment will be buffered from view by a six foot tall fence of slatted chain link or other solid non-combustible material, and the tower antennas will be buffered by the monopine branches. The view of the tower will be buffered by the existing trees. As conditioned, the project is anticipated to result in insignificant environmental, visual, and noise impacts to the surrounding residents. (Planning Commission Staff Report, November 13, 2014, Findings, p. 2)

Finally, staff concludes that the Approved Facility complies with all requirements of Code §17.14.210(E) through (J), including demonstrated compliance with all RF emission requirements and a design that accommodates future collocations. In sum, Verizon Wireless has provided all necessary submittals and evidence to confirm full compliance with the County's General Plan and the Code in a manner satisfactory to obtain unanimous Planning Commission approval.

III. Federal Law Compels Approval of the Approved Facility

Verizon Wireless is licensed by the FCC to provide wireless telecommunications services throughout the United States, including El Dorado County. The siting of wireless communications facilities ("WCFs"), including the one at issue here, is governed by federal law. While reserving to local jurisdictions control over the siting, placement and modification of WCFs, the federal Telecommunications Act (the "TCA") places "certain limitations on localities' control over the construction and modification of WCFs." *Sprint PCS Assets, LLC v. City of Palos Verdes Estates,* 583 F.3d 716, 721 (9th Cir. 2009). Specifically, the TCA preserves local control over land use decisions, subject to the following explicit statutory restrictions:

- The local government must act on a permit application within a reasonable period of time (47 U.S.C. §332(c)(7)(B)(ii));
- Any denial of an application must be in writing and supported by substantial evidence contained in a written record (47 U.S.C. §332(c)(7)(B)(iii));
- The local government may *not* regulate the placement, construction, or modification of WCFs on the basis of the environmental effects of radio frequency emissions to the extent such facilities comply with the FCC's regulations concerning such emissions (47 U.S.C. §332(c)(7)(B)(iv));
- The local government may not unreasonably discriminate among providers of functionally equivalent services (47 U.S.C. §332(c)(7)(B)(i)(I)); and
- The local government's decision must not "prohibit or have the effect of prohibiting the provision of personal wireless services" (47 U.S.C. §332(c)(7)(B)(i)(II)).

With this legal framework in mind, we address below the specific federal law issues before the Board of Supervisors with respect to this application.

IV. Substantial Evidence for Approval, Lack of Substantial Evidence for Denial

As interpreted under controlling federal court decisions, the "substantial evidence" requirement means that a local government's decision to deny a WCF application must be "authorized by applicable local regulations and supported by a reasonable amount of evidence (i.e., more than a 'scintilla' but not necessarily a preponderance)." *Metro PCS, Inc. v. City and County of San Francisco,* 400 F.3d 715, 725 (9th Cir. 2005). In other words, a local government must have specific reasons that are both consistent with the local regulations and supported by substantial evidence in the record to deny a wireless facility permit.

While a local government may regulate the placement of WCFs based on aesthetics, it must have specific reasons that are both consistent with the local regulations

and supported by substantial evidence in the record. Generalized concerns or opinions about aesthetics or compatibility with a neighborhood do not constitute substantial evidence upon which a local government could deny a permit. *See City of Rancho Palos Verdes v. Abrams*, 101 Cal. App. 4th 367, 381 (2002).

As set forth above, Verizon Wireless has provided substantial evidence to show that the Approved Facility complies with all requirements of the Code. Among other evidence, photosimulations demonstrate minimal aesthetic impacts, while the H&E Report confirms that the Approved Facility will operate well below the FCC's exposure limits. In contrast, Appellant has provided no evidence – let alone the substantial evidence required by federal law – to support denial of the Approved Facility.

V. Radio Frequency Emissions Comply with FCC Standards

Local governments are specifically precluded under the federal statute from considering any alleged health or environmental effects of RF emissions of proposed WCFs "to the extent such facilities comply with the FCC's regulations concerning such emissions." 47 U.S.C. §332(c)(7)(B)(iv). As set forth in the H&E Report referenced above, the Approved Facility fully complies with applicable FCC guidelines and will operate far below all applicable FCC public exposure limits. Indeed, the H&E Report calculates that the maximum exposure anywhere at ground level is a mere 0.9% of the applicable FCC public limit.

Moreover, federal preemption goes beyond decisions that are explicitly based on RF emissions. It also bars efforts to skirt such preemption through some proxy such as aesthetics or property values. *See, e.g., AT&T Wireless Servs. of Cal. LLC v. City of Carlsbad,* 308 F. Supp. 2d 1148, 1159 (S.D. Cal. 2003) (in light of federal preemption, "concern over the decrease in property values may not be considered as substantial evidence if the fear of property value depreciation is based on concern over the health effects caused by RF emissions"); *Calif. RSA No. 4, d/b/a Verizon Wireless v. Madera County,* 332 F. Supp. 2d 1291, 1311 (E.D. Cal. 2003) ("complaints about property values were really a proxy for concerns about possible environmental effects of RF [emissions], which cannot provide the basis to support a decision"). Where, as here, a WCF has been shown to fully comply with FCC guidelines, neither health concerns nor any proxy for health concerns can justify overturning the approval.

VI. Response to Appeal

Appellant raises four grounds for appeal, none of which present the substantial evidence required under federal law to warrant denial of Verizon Wireless's application.

1. County Approval Adequately Provides for Roadway Repair

Condition of Approval 31 added by the Planning Commission ensures that Verizon Wireless will restore Lake Vista Lane to the condition existing prior to installation of the Approved Facility. The operation of Verizon Wireless's facility will

require monthly maintenance. Accordingly, to meet its own maintenance requirements, it will be in the best interest of Verizon Wireless to repair the road as necessary to ensure continuous access to its facility. Appellant's suggestion that Verizon Wireless's activities will cause Lake Vista Lane to fall into disrepair are entirely misplaced. Finally, California Civil Code §845 already requires equitable contribution for the maintenance of private roadways "proportionately" to the use made by each owner. In other words, Verizon Wireless's use of Lake Vista Lane will only enhance the roadway's maintenance.

2. Planning Commission Adopted Negative Declaration with Full Knowledge of the Nine Proposed Antennas

The minor error in the Initial Study referring to three antennas rather than three sector arrays of antennas to be placed on the stealth treepole of the Approved Facility was taken into account by the Planning Commission in its unanimous adoption of the Negative Declaration, which merely refers to "antennas." Photosimulations and plans submitted for the Approved Facility clearly depicted the nine proposed antennas in three sector arrays and the Approved Facility was reviewed based upon these documents. In any case, the additional number of antennas would never constitute substantial evidence of significant environmental impact that would justify a requirement for an environmental impact report under the California Environmental Quality Act. The inaccurate reference to the number of antennas in the Initial Study, which was subsequently clarified for the Planning Commission prior to their adoption of the Negative Declaration, cannot justify denial of the Approved Facility on appeal.

3. Nearby Collocation Facility Does Not Provide Adequate Height for Verizon Wireless Signal Propagation

Nearly four years ago, Verizon Wireless investigated the possibility of locating a wireless facility at the American Tower Corporation facility on Arroyo Vista Way. At that time, Verizon Wireless concluded that it could not achieve its network coverage objectives from this location without a substantial increase in height to the existing tower. Section 17.14.210(D)(4)(a) of the Code allows collocation on an existing tower only "at or below the topmost existing antenna array." AT&T has recently upgraded its antennas at the top of the tower and is unlikely to lower its antennas to accommodate Verizon Wireless. Verizon Wireless antennas placed below the AT&T antennas, which require a minimum ten-foot separation to avoid interference, could not provide the signal propagation necessary for the Verizon Wireless network. Any increase in height to the existing tower would require a new conditional use permit under the Code, and would therefore not be a preferred alternative to a new facility, such as the Approved Facility. Indeed, with respect to collocation, Section 17.14.210(B)(3) of the Code notes that "in some instances permitting a number of smaller facilities may be less visually obtrusive than permitting a single monopole or tower." Accordingly, the existing American Tower Corporation facility is not a preferred alternative to the Approved Facility.

4. Cumulative RF Emissions from Approved Facility and American Tower Corporation Facility Are Well Within Federal Safety Standards

The H&E report confirms that RF emissions from the Approved Facility are over 100 times below public exposure levels permitted by FCC guidelines. Subsequent correspondence from Hammett & Edison, Inc., Consulting Engineers, confirms that, at over 900 feet distant, the American Tower Corporation Facility will have a negligible effect on RF emissions in the area. The Hammett & Edison, Inc., Consulting Engineers, letter dated November 12, 2014, is attached as Exhibit C.

Conclusion

Verizon Wireless has worked diligently over the last four years to identify the ideal location and design for a facility to serve Salmon Falls Road and the vicinity. Bringing Verizon Wireless service to this area is essential to the health, safety, and welfare of residents, travelers, and emergency services providers in the surrounding community, including boaters on Folsom Lake. We strongly encourage you to follow the recommendations of planning staff, affirm the Planning Commission approval, and deny the appeal.

Very truly yours,

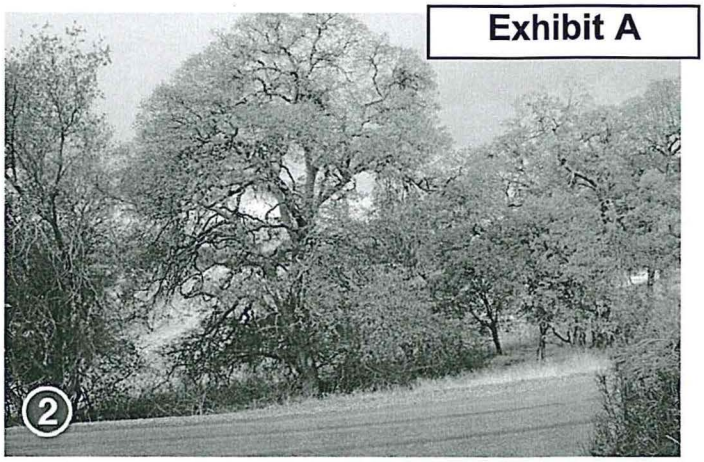
Paul B. Albritton

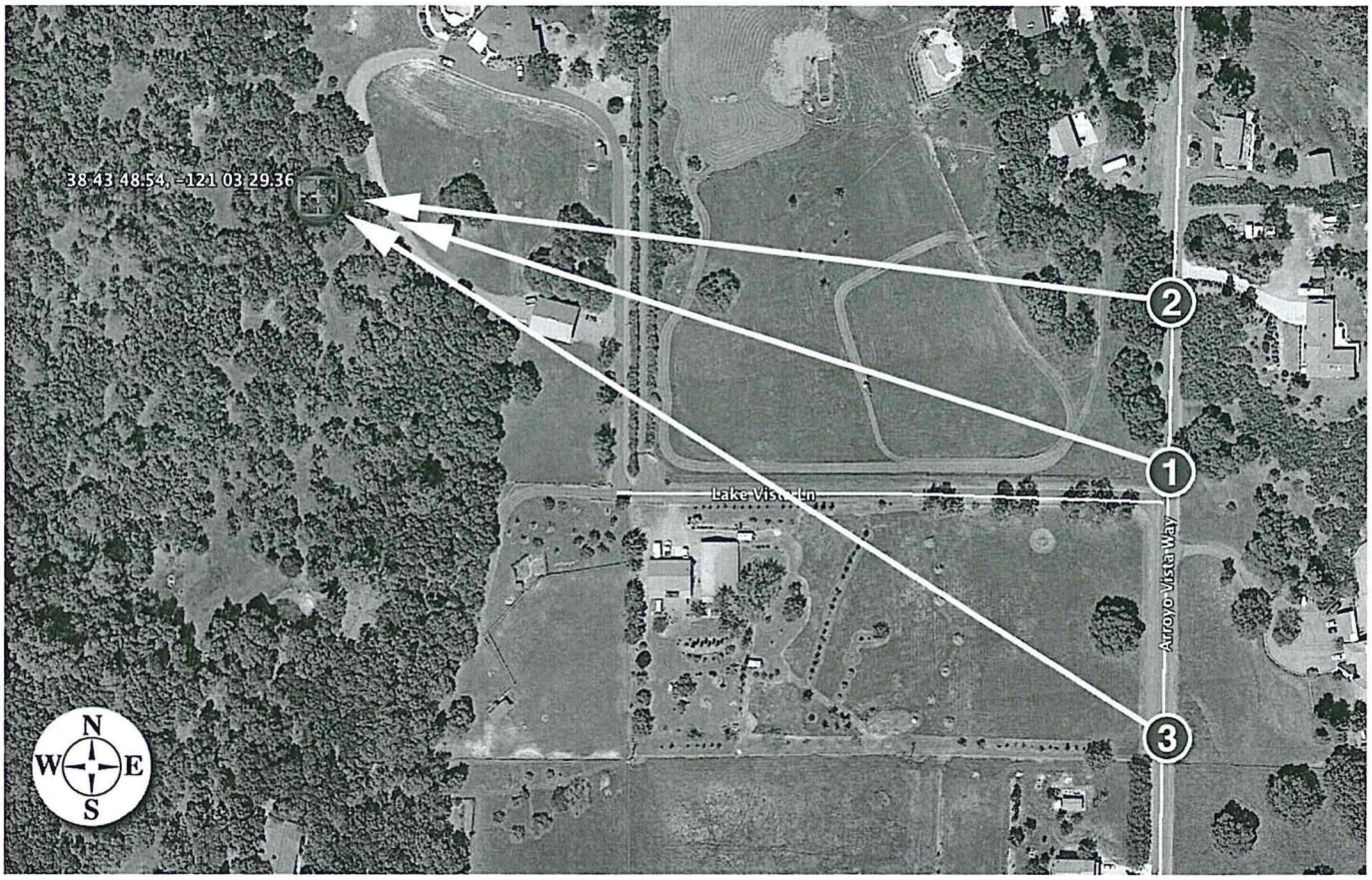
cc: Lillian MacLeod
Robyn Truitt Drivon, Esq.

Schedule of Exhibits

Exhibit A: Photosimulations
Exhibit B: Statement of Hammett & Edison, Inc., Consulting Engineers, June 2, 2014
Exhibit C: Letter from Hammett & Edison, Inc., Consulting Engineers, November 12, 2014

Exhibit A



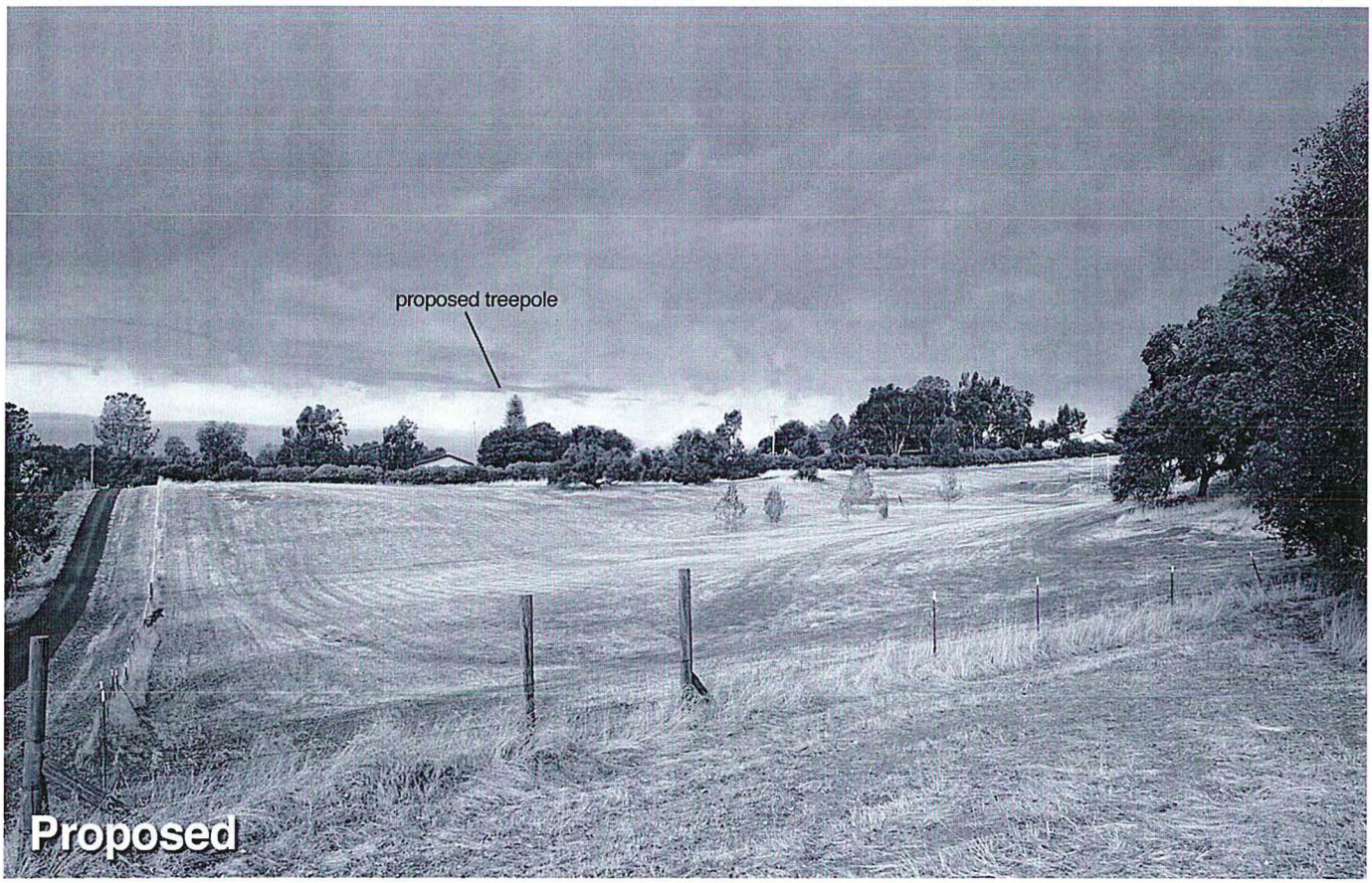


verizonwireless **Salmon Falls Road** **Site # 249699** **Aerial Map**

1521 Lake Vista Lane
El Dorado Hills, CA 95762

11/03/14

Applied Imagination 510 914-0500



verizon wireless

Salmon Falls Road **Site # 249699**

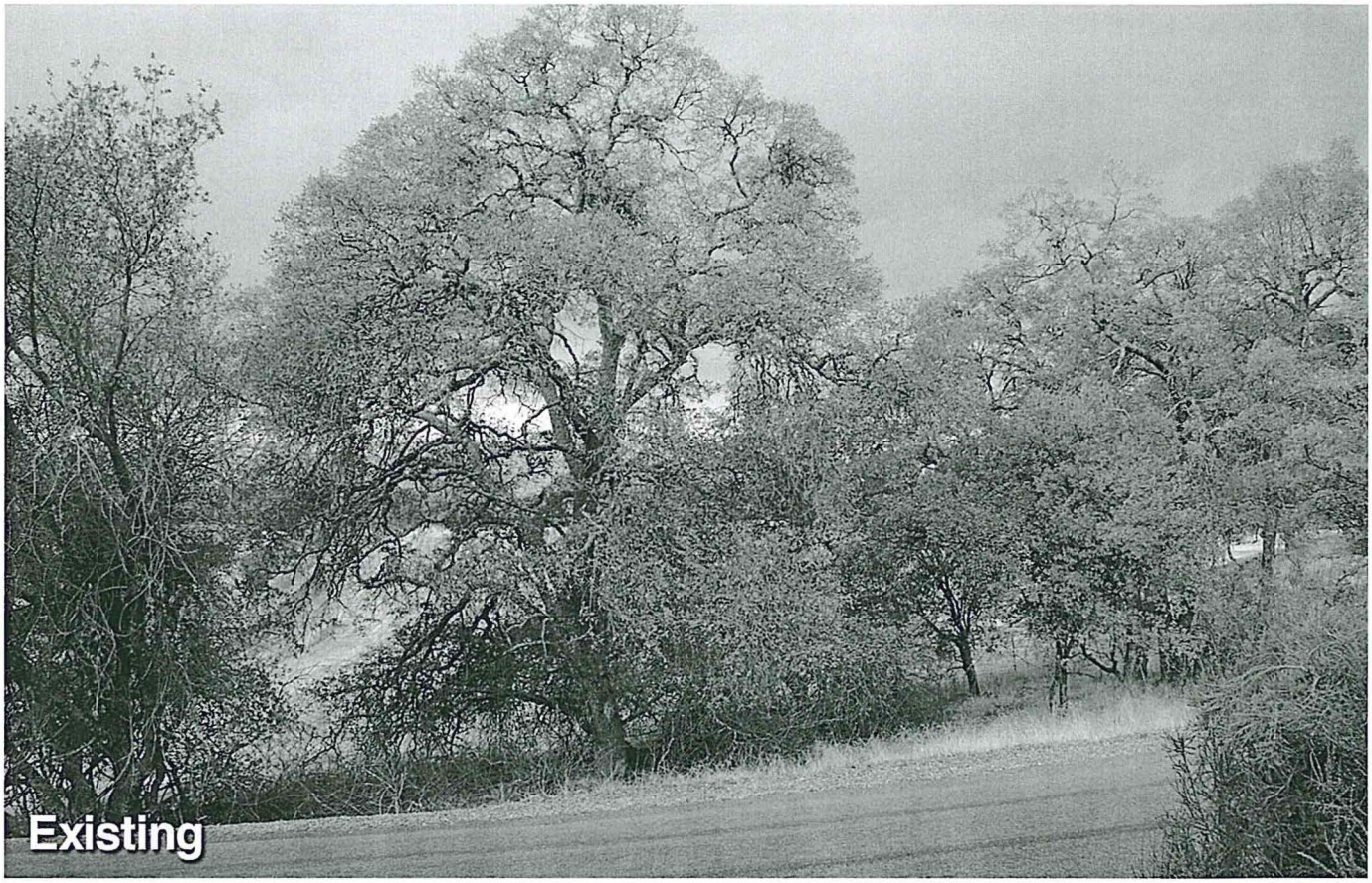
1521 Lake Vista Lane
El Dorado Hills, CA 95762

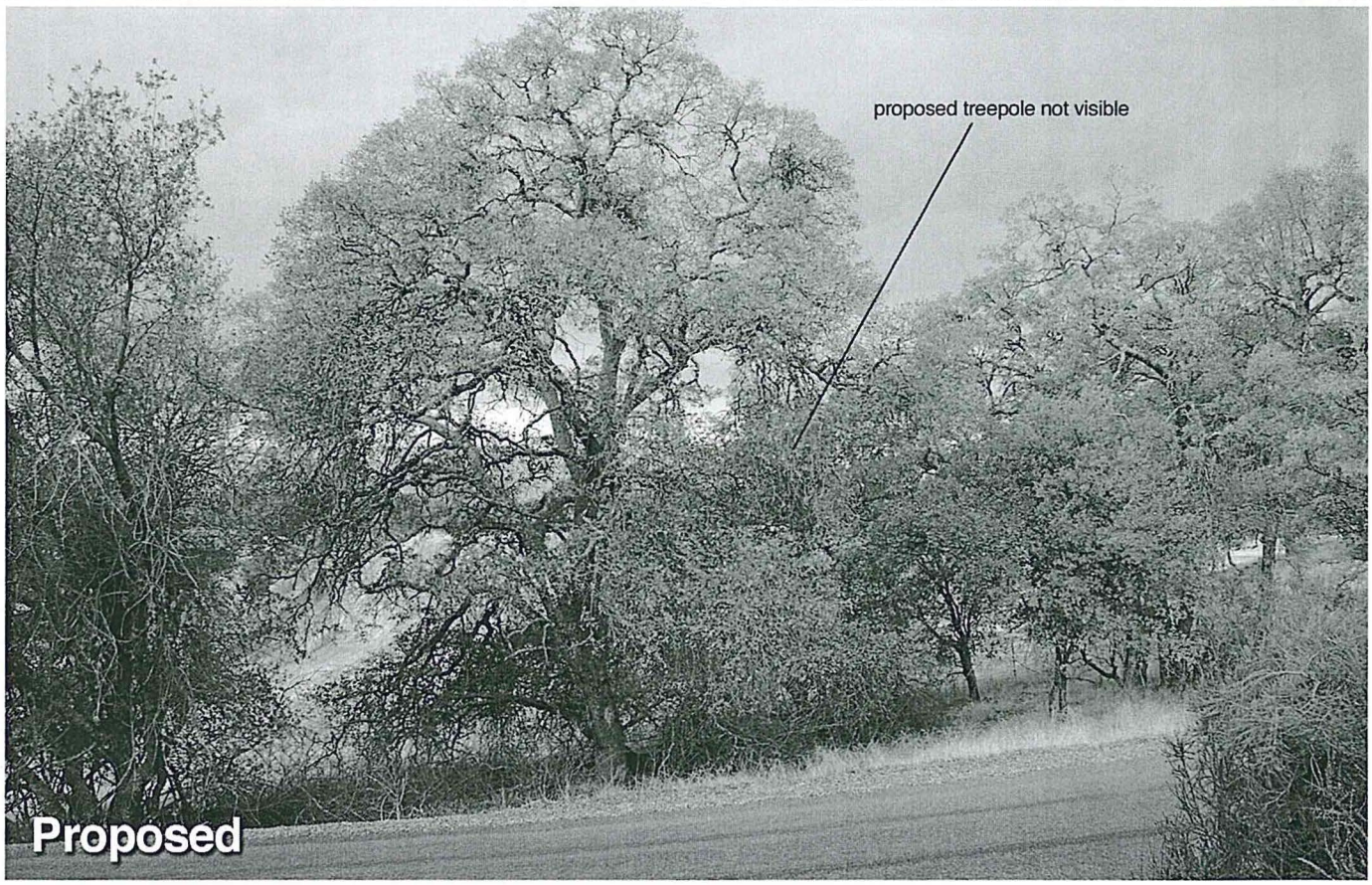
Looking West from Arroyo Vista Way

View #1

11/03/14

Applied Imagination 510 914-0500





verizonwireless

Salmon Falls Road **Site # 249699**

1521 Lake Vista Lane
El Dorado Hills, CA 95762

Looking West from Arroyo Vista Way

View #2

11/03/14

Applied Imagination 510 914-0500

14-1499 Public Comment
BOS Rcvd 12-31-14

verizon wireless

Salmon Falls Road **Site # 249699**

1521 Lake Vista Lane
El Dorado Hills, CA 95762

11/03/14

Looking West from Arroyo Vista Way

View #3

Applied Imagination 510 914-0500

Verizon Wireless • Proposed Base Station (Site No. 249699 "Salmon Falls Road")
1521 Lake Vista Lane • El Dorado Hills, California

Exhibit B

Statement of Hammett & Edison, Inc., Consulting Engineers

The firm of Hammett & Edison, Inc., Consulting Engineers, has been retained on behalf of Verizon Wireless, a personal wireless telecommunications carrier, to evaluate the base station (Site No. 249699 "Salmon Falls Road") proposed to be located at 1521 Lake Vista Lane in El Dorado Hills, California, for compliance with appropriate guidelines limiting human exposure to radio frequency ("RF") electromagnetic fields.

Executive Summary

Verizon proposes to install directional panel antennas on a tall pole to be sited at 1521 Lake Vista Lane in El Dorado Hills. The proposed operation will comply with the FCC guidelines limiting public exposure to RF energy.

Prevailing Exposure Standards

The U.S. Congress requires that the Federal Communications Commission ("FCC") evaluate its actions for possible significant impact on the environment. A summary of the FCC's exposure limits is shown in Figure 1. These limits apply for continuous exposures and are intended to provide a prudent margin of safety for all persons, regardless of age, gender, size, or health. The most restrictive FCC limit for exposures of unlimited duration to radio frequency energy for several personal wireless services are as follows:

Wireless Service	Frequency Band	Occupational Limit	Public Limit
Microwave (Point-to-Point)	5,000–80,000 MHz	5.00 mW/cm^2	1.00 mW/cm^2
BRS (Broadband Radio)	2,600	5.00	1.00
WCS (Wireless Communication)	2,300	5.00	1.00
AWS (Advanced Wireless)	2,100	5.00	1.00
PCS (Personal Communication)	1,950	5.00	1.00
Cellular	870	2.90	0.58
SMR (Specialized Mobile Radio)	855	2.85	0.57
700 MHz	700	2.40	0.48
[most restrictive frequency range]	30–300	1.00	0.20

General Facility Requirements

Base stations typically consist of two distinct parts: the electronic transceivers (also called "radios" or "channels") that are connected to the traditional wired telephone lines, and the passive antennas that send the wireless signals created by the radios out to be received by individual subscriber units. The transceivers are often located at ground level and are connected to the antennas by coaxial cables. A small antenna for reception of GPS signals is also required, mounted with a clear view of the sky. Because of the short wavelength of the frequencies assigned by the FCC for wireless services, the

antennas require line-of-sight paths for their signals to propagate well and so are installed at some height above ground. The antennas are designed to concentrate their energy toward the horizon, with very little energy wasted toward the sky or the ground. This means that it is generally not possible for exposure conditions to approach the maximum permissible exposure limits without being physically very near the antennas.

Computer Modeling Method

The FCC provides direction for determining compliance in its Office of Engineering and Technology Bulletin No. 65, "Evaluating Compliance with FCC-Specified Guidelines for Human Exposure to Radio Frequency Radiation," dated August 1997. Figure 2 attached describes the calculation methodologies, reflecting the facts that a directional antenna's radiation pattern is not fully formed at locations very close by (the "near-field" effect) and that at greater distances the power level from an energy source decreases with the square of the distance from it (the "inverse square law"). The conservative nature of this method for evaluating exposure conditions has been verified by numerous field tests.

Site and Facility Description

Based upon information provided by Verizon, including zoning drawings by HMH Design Group, dated February 28, 2014, it is proposed to install nine Andrew Model SBNHH-1D65B directional panel antennas on a new 85-foot steel pole, configured to resemble a pine tree, to be sited about 270 feet southwest of the residence located at 1521 Lake Vista Lane in El Dorado Hills. The antennas would be mounted with 4° downtilt at an effective height of about 78 feet above ground and would be oriented in groups of three toward 20°T, 130°T, and 240°T. For the limited purposes of this study, it is assumed that the maximum effective radiated power in any direction would be 10,200 watts, representing simultaneous operation at 4,360 watts for AWS, 1,600 watts for PCS, 2,360 watts for cellular, and 1,880 watts for 700 MHz service. There are reported no other wireless telecommunications base stations at the site or nearby.

Study Results

For a person anywhere at ground, the maximum RF exposure level due to the proposed Verizon operation is calculated to be 0.0054 mW/cm^2, which is 0.90% of the applicable public exposure limit. The maximum calculated level at the second-floor elevation of any other residence nearby* is 2.0% of the public exposure limit. It should be noted that these results include several "worst-case" assumptions and therefore are expected to overstate actual power density levels from the proposed operation.

* Located at least 430 feet away, based on photographs from Google Maps.

No Recommended Mitigation Measures

Due to their mounting location, the Verizon antennas would not be accessible to the general public, and so no mitigation measures are necessary to comply with the FCC public exposure guidelines. It is presumed that Verizon will, as an FCC licensee, take adequate steps to ensure that its employees or contractors receive appropriate training and comply with FCC occupational exposure guidelines whenever work is required near the antennas themselves.

Conclusion

Based on the information and analysis above, it is the undersigned's professional opinion that operation of the base station proposed by Verizon Wireless at 1521 Lake Vista Lane in El Dorado Hills, California, will comply with the prevailing standards for limiting public exposure to radio frequency energy and, therefore, will not for this reason cause a significant impact on the environment. The highest calculated level in publicly accessible areas is much less than the prevailing standards allow for exposures of unlimited duration. This finding is consistent with measurements of actual exposure conditions taken at other operating base stations.

Authorship

The undersigned author of this statement is a qualified Professional Engineer, holding California Registration Nos. E-13026 and M-20676, which expire on June 30, 2015. This work has been carried out under his direction, and all statements are true and correct of his own knowledge except, where noted, when data has been supplied by others, which data he believes to be correct.

William F. Hammett, P.E.
707/996-5200

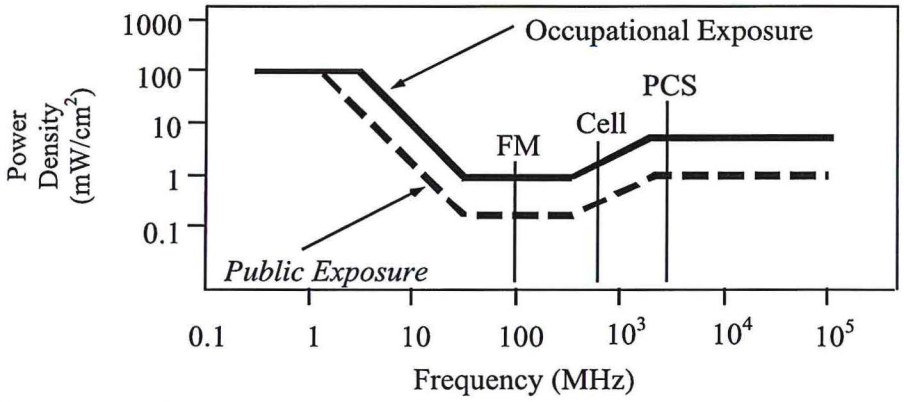
June 2, 2014

FCC Radio Frequency Protection Guide

The U.S. Congress required (1996 Telecom Act) the Federal Communications Commission ("FCC") to adopt a nationwide human exposure standard to ensure that its licensees do not, cumulatively, have a significant impact on the environment. The FCC adopted the limits from Report No. 86, "Biological Effects and Exposure Criteria for Radiofrequency Electromagnetic Fields," published in 1986 by the Congressionally chartered National Council on Radiation Protection and Measurements ("NCRP"). Separate limits apply for occupational and public exposure conditions, with the latter limits generally five times more restrictive. The more recent standard, developed by the Institute of Electrical and Electronics Engineers and approved as American National Standard ANSI/IEEE C95.1-2006, "Safety Levels with Respect to Human Exposure to Radio Frequency Electromagnetic Fields, 3 kHz to 300 GHz," includes similar limits. These limits apply for continuous exposures from all sources and are intended to provide a prudent margin of safety for all persons, regardless of age, gender, size, or health.

As shown in the table and chart below, separate limits apply for occupational and public exposure conditions, with the latter limits (in *italics* and/or dashed) up to five times more restrictive:

Frequency	Electromagnetic Fields (f is frequency of emission in MHz)					
Applicable Range (MHz)	Electric Field Strength (V/m)		Magnetic Field Strength (A/m)		Equivalent Far-Field Power Density (mW/cm^2)	
0.3 – 1.34	614	*614*	1.63	*1.63*	100	*100*
1.34 – 3.0	614	*823.8/f*	1.63	*2.19/f*	100	*180/f^2*
3.0 – 30	1842/ f	*823.8/f*	4.89/ f	*2.19/f*	900/ f^2	*180/f^2*
30 – 300	61.4	*27.5*	0.163	*0.0729*	1.0	*0.2*
300 – 1,500	$3.54\sqrt{f}$	*$1.59\sqrt{f}$*	$\sqrt{f}/106$	*$\sqrt{f}/238$*	f/300	*f/1500*
1,500 – 100,000	137	*61.4*	0.364	*0.163*	5.0	*1.0*



Higher levels are allowed for short periods of time, such that total exposure levels averaged over six or thirty minutes, for occupational or public settings, respectively, do not exceed the limits, and higher levels also are allowed for exposures to small areas, such that the spatially averaged levels do not exceed the limits. However, neither of these allowances is incorporated in the conservative calculation formulas in the FCC Office of Engineering and Technology Bulletin No. 65 (August 1997) for projecting field levels. Hammett & Edison has built those formulas into a proprietary program that calculates, at each location on an arbitrary rectangular grid, the total expected power density from any number of individual radio sources. The program allows for the description of buildings and uneven terrain, if required to obtain more accurate projections.

RFR.CALC™ Calculation Methodology

Assessment by Calculation of Compliance with FCC Exposure Guidelines

The U.S. Congress required (1996 Telecom Act) the Federal Communications Commission ("FCC") to adopt a nationwide human exposure standard to ensure that its licensees do not, cumulatively, have a significant impact on the environment. The maximum permissible exposure limits adopted by the FCC (see Figure 1) apply for continuous exposures from all sources and are intended to provide a prudent margin of safety for all persons, regardless of age, gender, size, or health. Higher levels are allowed for short periods of time, such that total exposure levels averaged over six or thirty minutes, for occupational or public settings, respectively, do not exceed the limits.

Near Field.

Prediction methods have been developed for the near field zone of panel (directional) and whip (omnidirectional) antennas, typical at wireless telecommunications base stations, as well as dish (aperture) antennas, typically used for microwave links. The antenna patterns are not fully formed in the near field at these antennas, and the FCC Office of Engineering and Technology Bulletin No. 65 (August 1997) gives suitable formulas for calculating power density within such zones.

For a panel or whip antenna, power density $S = \frac{180}{\theta_{BW}} \times \frac{0.1 \times P_{net}}{\pi \times D \times h}$, in mW/cm^2,

and for an aperture antenna, maximum power density $S_{max} = \frac{0.1 \times 16 \times \eta \times P_{net}}{\pi \times h^2}$, in mW/cm^2,

where θ_{BW} = half-power beamwidth of the antenna, in degrees, and
P_{net} = net power input to the antenna, in watts,
D = distance from antenna, in meters,
h = aperture height of the antenna, in meters, and
η = aperture efficiency (unitless, typically 0.5-0.8).

The factor of 0.1 in the numerators converts to the desired units of power density.

Far Field.

OET-65 gives this formula for calculating power density in the far field of an individual RF source:

power density $S = \frac{2.56 \times 1.64 \times 100 \times RFF^2 \times ERP}{4 \times \pi \times D^2}$, in mW/cm^2,

where ERP = total ERP (all polarizations), in kilowatts,
RFF = relative field factor at the direction to the actual point of calculation, and
D = distance from the center of radiation to the point of calculation, in meters.

The factor of 2.56 accounts for the increase in power density due to ground reflection, assuming a reflection coefficient of 1.6 (1.6 x 1.6 = 2.56). The factor of 1.64 is the gain of a half-wave dipole relative to an isotropic radiator. The factor of 100 in the numerator converts to the desired units of power density. This formula has been built into a proprietary program that calculates, at each location on an arbitrary rectangular grid, the total expected power density from any number of individual radiation sources. The program also allows for the description of uneven terrain in the vicinity, to obtain more accurate projections.

Exhibit C

HAMMETT & EDISON, INC.
CONSULTING ENGINEERS
BROADCAST & WIRELESS

WILLIAM F. HAMMETT, P.E.
STANLEY SALEK, P.E.
ROBERT P. SMITH, JR.
RAJAT MATHUR, P.E.
ANDREA L. BRIGHT, P.E.
KENT A. SWISHER
NEIL J. OLIJ
BRIAN F. PALMER

ROBERT L. HAMMETT, P.E.
1920-2002
EDWARD EDISON, P.E.
1920-2009

DANE E. ERICKSEN, P.E.
CONSULTANT

BY E-MAIL A.HEINE@COMCAST.NET

November 12, 2014

Mr. Alan Heine
On Air, LLC
4305 Hensley Circle
El Dorado Hills, California 95762

Dear Alan:

Thanks for passing along the questions posed by the property owner to the south of the proposed site for a new Verizon Wireless base station (Site No. 249699) at 1521 Lake Vista Lane in El Dorado Hills.

Mr. Bob Hablitzel, at 1500 Lake Vista Lane, asks two basic questions. First, what effect does the existing American Tower site have on cumulative radiofrequency exposure levels? The answer is that the effect is negligible, in terms of compliance with the FCC limits, being some 900 feet away from the American Tower site, and certainly this is true as well at the 1100-foot distance from the American Tower site to Mr. Hablitzel's property.

Second, is "uneven terrain" factored in, "to obtain more accurate projections"? (The quotations are from the description of our calculation methodology, attached to our report dated June 2, 2014.) The answer is yes, with ground elevation variations from the rolling terrain in this area, rising toward the northeast. Of note is that, in order to be conservative in our projections, we did not consider blockage from terrain or heavy vegetation, though in such situations the actual power levels would be substantially reduced.

I trust that this discussion helps to address Mr. Hablitzel's questions. Please let us know if you need anything further at this time.

Sincerely yours,

William F. Hammett

cz

cc: Ms. Jennifer Robson – BY E-MAIL JROBSON@ONAIRLLC.COM

e-mail: **bhammett@h-e.com**
Delivery: **470 Third Street West • Sonoma, California 95476**
Telephone: **707/996-5200 San Francisco • 707/996-5280 Facsimile • 202/396-5200 D.C.**

R3UQ