



COMMUNITY DEVELOPMENT AGENCY  
PLANNING DIVISION

February 5, 2019

Brian C. Crawford  
DIRECTOR

Thomas Lai  
ASSISTANT DIRECTOR

Marin County Board of Supervisors  
3501 Civic Center Drive  
San Rafael, CA 94903

Re: Small Wireless (5G) Telecommunications Workshop

Marin County Civic Center  
3501 Civic Center Drive  
Suite 308  
San Rafael, CA 94903  
415 473 6269 T  
415 473 7880 F  
415 473 2255 TTY  
[www.marincounty.org/plan](http://www.marincounty.org/plan)

Dear Supervisors:

**RECOMMENDATION:** Accept report, conduct a workshop, and provide direction to staff to develop amendments to the County's telecommunications regulations for the Board's consideration at a future public hearing

**SUMMARY:** The workshop has been scheduled to provide a report focusing on a recent Federal Communication Commission (FCC) ruling regarding small cell wireless facilities (e.g. 5G). The fifth generation (5G) is often described by advocates as the next generation in wireless telecommunications technology, which utilizes a higher-frequency band (called millimeter wave) that would allow data to be transferred/downloaded at greater speed and with reduced delays. Unlike prior generations, 5G antennas have more compact spacing requirements, necessitating siting locations that are closer to the users. Many residents have expressed health concerns with exposure to electromagnetic fields (EMFs) and radio-frequency radiation (RFR) associated with closer proximity to wireless facilities.

Public outreach:

Notice of this meeting was mailed to a list of stakeholders 10 days prior to this meeting. Through the course of research on the FCC ruling and small cell technology, there have been several avenues of outreach that have been implemented. This outreach has included (1) directly reaching out to interested parties through an e-mail campaign; (2) creation of a website dedicated to small cell wireless facilities and a focused survey; and (3) reaching out to the general public through the official County communication channels. To date, over 535 people have visited the website and approximately 214 have participated in the survey. The survey result shows:

- The majority (59%) of respondents would support new or changes to existing wireless telecommunications services if it would maintain or expand the same level of service;
- Regarding exposure to EMF, the survey result shows approximately 47% of and 5% respondents indicated they are somewhat concerned, while 38% respondents stated they have no concern and the remaining 10% took a neutral position; and,
- Fifty-four percent of the respondents reside in towns/cities within Marin County while 46% indicated they reside in unincorporated areas of the

County. Of those who reside in unincorporated areas of the County, 83% resident in east Marin while the remaining 17% reside in west Marin.

### Background

#### The Telecommunications Act of 1996

The Telecommunications Act of 1996 (the "1996 Act") was the first significant overhaul of telecommunications law in more than sixty years, amending the Communications Act of 1934. The 1996 Act enabled the courts, or, in some cases, the FCC to preempt state or local legal requirements that act as a barrier to entry in the telecommunications service. Two sections of the 1996 Act, codified at 47 U.S.C. §§ 253 and 332(c)(7), address state and local jurisdiction preemptions:

- Section 253(a) prohibits state and local government regulations that "prohibit or have the effect of prohibiting the ability of any entity to provide any interstate or intrastate telecommunications service."
- Section 332(c)(7)(B) preempts state and local requirements that prohibit or have the effect of prohibiting the provision of personal wireless services.
- Section 332(c)(7)(B) also expressly preempts state and local government regulation of the placement, construction, and modification of personal wireless service facilities on the basis of the environmental effects of radio frequency (RFR) emissions to the extent that such facilities comply with the FCC's regulations concerning such emissions. In addition, Section 332(c)(7)(B) requires a state or local government to act upon a request for authorization to place, construct, or modify personal wireless service facilities within a reasonable time frame

Although RFR emissions cannot be regulated at a state or local level, state and local government may require an applicant to certify that an individual wireless facility application complies with the FCC standards for maximum permitted exposure.

#### Marin County Telecommunication Plan:

The Telecommunications Facilities Policy Plan (TFPP) sets forth policies that establish regulatory framework for wireless facilities in Marin County. The TFPP was first adopted in 1990 and comprehensively updated in 1998, mainly in response to the advent and deregulation of the cellular telephone market and to reflect major legislative changes in the 1996 Act. While the current TFPP reinforces the foundational objective of reducing or eliminating new telecommunications sites on ridgelines, it also promotes the goal of mitigating visual impacts by reducing the number of new sites through co-location or clustering of multiple facilities and by various siting and design techniques. The Implementation section of the TFPP sets forth the various thresholds for the Planning Division's review of wireless facilities including requirements for Master Plan, Conditional Use Permit, and Design Review, as further described below:

1. *Master Plan:* Implementing a network facility plan that entails the installation of multiple wireless facilities for a carrier seeking to fill in gaps in their coverage would require a Master Plan as well as Conditional Use Permits and Design Reviews.

2. *Conditional Use Permit:* Installing a new wireless facility in a residential area that is not collocated with an existing facility on a structure, such as a wireless tower, would be subject to Conditional Use Permit approval.
3. *Design Review:* Collocating new wireless facilities or installing new facilities in commercial or industrial districts would be subject to Design Review. Also, new minor facilities with antennas that are architecturally integrated with a public facility or commercial, industrial, or agricultural building may be permitted with a Design Review.

The TFPP currently does not allow wireless communications facilities within residential neighborhoods or other areas where land use conflicts may occur unless no other suitable locations area available (TFPP Policy LU 1.4). The TFPP stops short of establishing an outright prohibition of wireless facilities in residential areas due to the 1996 Act's preemption against local regulations that effectively prohibiting wireless service TFPP policy LU 1.4 ranks location preferences in seven categories as follows (in order of preference): (1) industrial sites; (2) commercial sites; (3) public facilities sites; (4) agricultural sites; (5) mixed use sites; (6) Open space and recreational sites; and (7) residential sites.

The objective of avoiding residential areas unless necessary is supported by TFPP policies that enable the County to require service providers to submit a network facilities plan and to prepare an alternative sites analysis TFPP Policy VIS 1.1/Program VIS 1.1.1, Policy RP 1.1, Policy RIP 1.4). Under the TFPP, the County may also require technical information projecting whether a proposed facility, in combination with other surroundings facilities, meets or exceeds the applicable standard for human exposure to RFR emissions.

Declaratory Ruling and Third Report and Order 2018:

On September 26, 2018, the Federal Communications Commission (FCC) adopted a Declaratory Ruling and Third Report and Order pertaining to "small cell wireless facilities," including what is commonly referred to today as 5G, the latest generation of cellular mobile connections. 5G is often described by advocates as technology that will facilitate "The Internet of things" with significantly faster download speeds than are available today. Small cell wireless facilities, as defined by the FCC ruling, are facilities that meet each of the following conditions:

1. The structure on which antenna facilities are mounted—
  - a. Is 50 feet or less in height, or
  - b. Is no more than 10 percent taller than other adjacent structures, or
  - c. Is not extended to a height of more than 10 percent above its preexisting height as a result of the collocation of new antenna facilities;
2. Each antenna (excluding associated antenna equipment) is no more than three cubic feet in volume;
3. All antenna equipment associated with the facility (excluding antennas) are cumulatively no more than 28 cubic feet in volume;
4. The facility does not require antenna structure registration;
5. The facility is not located on Tribal lands; and

6. The facility does not result in human exposure to radiofrequency radiation in excess of the applicable safety standards.

Small cell facilities are typically affixed to light poles, utility poles, and traffic light poles within the public right-of-way including in residential districts. Small cell facilities also may include the installation of new poles in the right-of-way. Whether or not a utility pole contains a preexisting wireless facility, it is considered an existing facility. The FCC's ruling is directed at limiting four aspects of local regulation by establishing:

- A. Limits on aesthetic review, including design and spacing requirements;
- B. Prohibiting locational restrictions on the siting of small wireless facilities;
- C. New timelines for processing application; and,
- D. Maximum limits on local fees.

The FCC ruling also broadly construes the "prohibition" language in Sections 253(a) and 332(c)(7)(B) to include state and local requirements that "materially inhibit" a provider's ability to introduce new services or otherwise improve its service capabilities. In addition, the FCC ruling expressly prohibits regulation of the placement and modification of wireless communication facilities based on radio frequency (RFR) emissions.

Regulatory Issues

A. Limitations on aesthetic review and local discretionary requirements:

The FCC ruling limits the County's ability to impose regulations related to aesthetics, spacing or undergrounding of wireless facilities. Although the FCC ruling does not preclude the County from imposing spacing or separation requirements based on aesthetic considerations, aesthetic standards must be (1) reasonable in that they are technically feasible and reasonably directed to avoiding or remedying the intangible public harm; (2) no more burdensome than those applied to other types of "similar infrastructure deployments"; and (3) published in advance. Aesthetic requirements that are more burdensome than those applied to "similar infrastructure deployments" are not permissible "because such discriminatory application evidences that the requirements are not, in fact, reasonable and directed at remedying the impact of the wireless infrastructure deployment." (FCC ruling, ¶¶ 84-91)

As discussed above, the TFPP prescribes that applications subject to discretionary review require the approval of both a Use Permit and Design Review permit and, if applicable, Coastal Permit. While there is nothing in the FCC ruling that per se eliminates state and local government's power to require such discretionary permits, the FCC ruling does create two distinct challenges to continuing to use such discretionary processes:

1. Reviewing discretionary permits within the new shot clocks is now more difficult, as a practical matter; and
2. Ministerial permitting processes (as opposed to existing discretionary processes), if challenged in court, are *generally* more likely to pass the requirement in Paragraph 88 of the FCC ruling – that aesthetic regulations be "objective".

Finally, in order to establish that they are reasonable and reasonably directed to avoiding aesthetic harms, aesthetic requirements must be objective—i.e., they must incorporate clearly-defined and ascertainable standards, applied in a principled manner—and must be published in advance. “Secret rules that require applicants to guess at what types of deployments will pass aesthetic muster substantially increase providers’ costs without providing any public benefit or addressing any public harm. Providers cannot design or implement rational plans for deploying Small Wireless Facilities if they cannot predict in advance what aesthetic requirements they will be obligated to satisfy to obtain permission to deploy a facility at any given site.” (FCC ruling, ¶ 85)

Staff does not, however, interpret the FCC ruling as barring local jurisdictions from requiring a planning permit to ensure that proposed small cell projects meet objective standards. The content of the permit may include information that is reasonably related to the County’s ability to make a fully informed decision within the confines of federal law, such as a network facilities plan, alternative sites analysis, visual assessment and projected RFR emission levels, as discussed below in section *Regulations and Standards for Small Cell Wireless Facilities*.

**B. Small Wireless Facilities within residential areas:**

The limitations that the FCC ruling places on local authority over small cell wireless facilities applications apply equally to all zoning districts. Therefore, while applications in residential districts may be subject to limited local aesthetic requirements as discussed above, any outright prohibition of small cell wireless facilities in residential districts may be in violation of the FCC ruling.

As discussed above, the TFPP’s sites preference policy remains applicable, although the FCC’s ruling will limit the County’s ability to outright prohibit small cell wireless facilities in residential areas. The TFPP requires an Alternative Site Analysis be prepared for applications in “Less Preferred” locations such as residential districts. This requirement places the burden of “need” on the applicant as the Alternative Site Analysis must demonstrate that there are no other locations available to provide the same level of service coverage. However, the FCC ruling expressly permits small cell wireless in all zoning district although subject to certain local standards and preempts the County from requiring submittal of a coverage-based analysis for small cell wireless facilities. (FCC ruling, ¶ 36).

**C. New timelines for processing applications (“Shot-clock”):**

As discussed above, the FCC ruling establishes two new shot-clocks within which the County must act on small cell wireless facility applications, including multiple simultaneous or “batched” applications. The new shot-clocks for small cell wireless facility applications are: (1) 60 days for collocations on any existing structure and (2) 90 days for (a) attachment of small wireless facilities to a new structure and (b) other than small wireless facility using an existing structure. The FCC ruling also imposes a 150-day shot-clock for an application other than a small wireless facility using a new structure. These time limits apply “to all authorizations a locality may require, and to all aspects of and steps in the siting process, including license or franchise agreements to access ROW, building permits, public notices and meetings, lease negotiations, electric permits, road closure permits, aesthetic approvals, and other authorizations needed for deployment.” (FCC ruling, ¶ 132).

The FCC ruling declares that a failure to act within the above timeframe constitutes a presumptive prohibition on the provision of services and, as a result, applications are deemed rejected. Thus, "when a siting authority misses the applicable shot clock deadline, the applicant may commence suit in a court of competent jurisdiction alleging a violation of" the FCC ruling. (FCC ruling, ¶ 119)

Included in the package of amendments to the County Development Code currently under review by the Planning Commission is a new provision allowing direct appeals to the Board of Supervisors when determined necessary to comply with strict timelines established under state or federal law.

D. Limitations on Fees & Charges:

The FCC ruling provides that "fees are only permitted to the extent that they are nondiscriminatory and represent a reasonable approximation of the locality's reasonable costs." (FCC ruling, ¶32) The FCC ruling limits application fees for all small cell wireless facilities to \$500 for up to five sites, \$100 per site for each site thereafter and \$270.00 per year for all recurring fees including any right-of-way access fee (e.g. encroachment permit) or fee for attachment to a municipality-owned structure in the public right-of-way.

The FCC ruling states that, in limited circumstances, a state or local agency can charge fees higher than the above fees provided that: a) they are a reasonable approximation of the costs; b) the costs themselves are reasonable; and c) they are not discriminatory. (FCC ruling, ¶32)

The fees that are charged (both non-recurring and recurring) for small cell wireless facility applications could have a fiscal impact on the County. Per the FCC ruling, the fees charged by the County for small cell wireless facilities must be fair and reasonable. The "non-recurring" fees that are presented in the FCC survey (discussed above) are below the fees that the County currently charges for both minimal review (for building permit fee and encroachment permit fee) for co-location and new antenna site facilities. However, staff finds that, application of County's current fees, including for building, planning and encroachment permit, are "fair and reasonable" and that they should be required for small cell wireless facilities.

**RECOMMENDATION:**

As discussed above, the FCC ruling is in full force and in effect. To solidify the County's ability to evaluate new applications for small cell wireless facilities in compliance with the FCC ruling, staff recommends the Board direct staff to update the County's regulations governing small cell wireless facilities and affirm the applicability of the following TFPP policies:

- A. Limit residential areas: Avoid residential areas unless it is necessary and demonstrated its need through a network facilities plan and an alternative site analysis (TFPP Policy LU 1.4/TFPP Policy VIS 1.1/Program VIS 1.1.1, Policy RP 1.1, Policy RP 1.4).
- B. Ridge and Upland Greenbelt areas: Prohibit new wireless telecommunication facilities in Ridge and Upland Greenbelt areas unless (1) no other technically

feasible and available site exists or (2) application is for collocation with pre-existing facility (TFPP Policy LU.1.1/ Program VIS 2.1.1)

- C. Stealth Design: Telecommunications facilities should be located on each site and designed in a manner which minimizes visual impact and potential health risks from exposure to electromagnetic field (EMF) (Program VIS 1.1.1/Policy VIS 2.2/ Policy VIS 2.3/Program VIS 2.2.11/Policy EMF 2.1)

In addition to these objective standards, the Board should also consider establishing additional objective standards and permitting process specifically tailored to regulate small cell wireless technology:

- D. Collocation: Encourage and incentivize collocation at existing facilities such as light poles, traffic lights or other similar structures subject to design, spacing and setback standards. Prohibit *new* small cell wireless poles in residential districts where collocation at an existing facility is possible subject to the limitations established in TFPP Policy LU 1.4, TFPP Policy VIS1.1/Program VIS1.1.1, Policy RP 1.1, and Policy RP 1.4.
- E. Impose spacing/separation requirements: Limit the number of small cell wireless facilities to one per pole, limit the number of small cell wireless facilities on the same block to no more than technically necessary to provide services, and establishing a separation requirement between small cell wireless facilities (such as 500 feet).
- F. Design standards: Design standards could include, among others: concealment requirements (placing antenna mountings in a concealed cannister and only installed on the top or flash mounted); limit antenna height and width to typical industry standards; prohibit exposed wires/cables or projecting antennas; where possible, consolidate cabinets/enclosures with existing signs to minimize visual impact. If this is not an option, antenna and cabinet/enclosures should be coated in material and color matching that of the supporting structures; and other design standards that could mitigate appearances.
- G. New Permit application: Establish a new permitting procedure to implement the urgency ordinance.
- H. Other considerations: Small cell wireless facilities should be limited to County maintained rights-of-way, unless authorized by fee title owners on privately maintained roads and access easements; prohibit small cell wireless facilities on ornamental streetlight and pedestrian light poles or on sites with historic or pre-historic resources.

**REVIEWED BY:**

Department of Finance  
 County Counsel  
 Human Resources

N/A  
 N/A  
 N/A

**SIGNATURE:**



Immanuel Bereket  
Senior Planner

**Reviewed By:**



Brian C. Crawford  
Director

- Attachment: (1) Comparison of recent ordinances in response to FCC ruling  
(2) Open Marin survey Results  
(3) Correspondence received