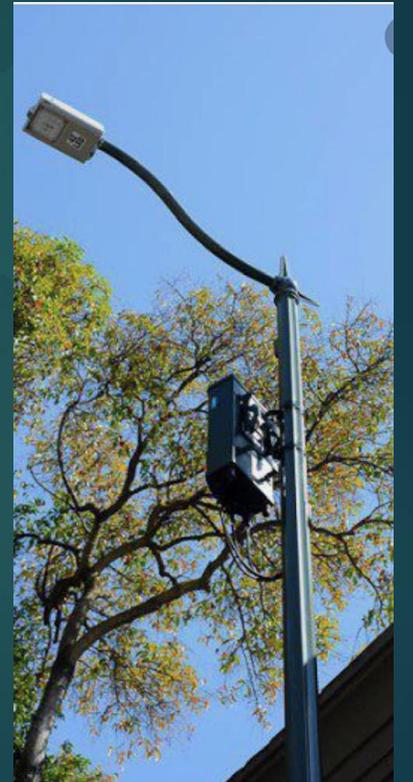


Item 9A: Small Cell Wireless Facilities

CITY COUNCIL MEETING
NOVEMBER 10, 2021



Background

- ▶ April 10, 2019: Council adopted an urgency ordinance to add regulations specific to Small Cell Wireless Facilities Ordinance (“Ordinance”).
- ▶ March 24, 2021: Council directed staff to prepare an update to the Ordinance.
- ▶ July 6, 2021: Planning Commission considered and recommended adoption of the Ordinance.
- ▶ September 8, 2021: Council considered proposed Ordinance and gave direction to research:
 - ▶ Periodic RF emission testing (possibly every three years);
 - ▶ Engineer to provide input and potential risks relating to RF emissions;
 - ▶ Potential requirements for a failsafe device if facility exceeds FCC RF emission standards;
 - ▶ City of Lafayette requirements relating RF emissions testing; and
 - ▶ Number of small wireless facilities in Town.

Proposed Ordinance: Key Areas of Review

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Developmental Standards

- Location Preferences;
- Aesthetic and Landscaping requirements;
- Noise; and
- Radiofrequency monitoring and insurance requirements.

Procedural Standards

- Public Notice; and
- Use of technical consultants and licensed engineers in review.



Proposed Revisions



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- ▶ Location Preferences (Section 8.144.035(C)(1))
- ▶ Aesthetic and Landscaping Requirements (Section 8.144.035(C))
- ▶ Noise (Section 8.144.035(C)(11))
- ▶ Radiofrequency Emissions and Insurance Requirements (Section 8.144.035(D)(2)(d) and Section 8.144.035(F)(6) and(7))
- ▶ Public Notice (Section 8.144.035(E))
- ▶ Use of Licensed Engineers (Section 8.144.035(D)(2)(a))
- ▶ Use of Town Retained Consultant (Section 8.144.035(D)(3))

Additional Revisions

- ▶ Requirement for removal of equipment after the discontinuation of use changed from sixty to ninety days. (Section 8.144.035 (C)(13))
- ▶ Planning Director authorized to establish reasonable rules and regulations as necessary to organize, document and manage the application intake process. (Section 8.144.035(D)(2)(f))
- ▶ Adds clarification regarding “Eligible Facilities Requests” relating to small cell wireless facilities and defines the term to conform to the current and applicable law. (Section 8.144.035(G))
- ▶ Adds language that if there are changes in applicable federal or state law pertaining to small cell wireless facilities, the Planning Director may consider such changes in the review of the pending application. (Section 8.144.035(H))

Additional Revisions continued

- ▶ Adds new subsection 8.144.010 (B) to Purpose and Intent
- ▶ Adds or revises definitions in Section 8.144.030 for the following terms:
 - Antenna
 - Arterial Street
 - Applicant
 - Approval Authority
 - Collector Street
 - Collocation
 - Eligible Facilities Request
 - Eligible Support Structure
 - Monopole
 - MOSO
 - Permittee
 - Persons Entitled to Notice
 - Planning Director
 - Related Equipment
 - Small Cell Site Permit
 - Small Cell Wireless Facility

Radiofrequency (RF) Emissions

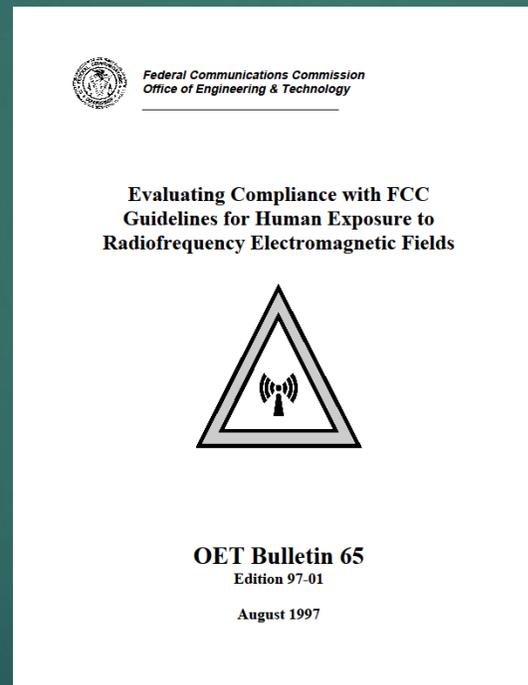
Federal law prohibits the regulation of wireless facilities based on the environmental effects of RF emissions.

47 U.S.C. § 332(c)(7)(B)(iv):

No State or local government or instrumentality thereof may regulate the placement, construction, and modification of personal wireless service facilities on the basis of the environmental effects of radio frequency emissions to the extent that such facilities comply with the Commission's regulations concerning such emissions.

FCC establishes specific guidelines for human exposure to RF emissions

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RF Emissions Experts Hammett & Edison

- ▶ Provide independent services to wireless telecommunications carriers, municipal agencies, broadcast stations and private landlords.
- ▶ Specializes in third party testing to ensure RF exposure compliance with FCC requirements.
- ▶ Bill Hammett is a Registered Professional Engineer (Mechanical) and Registered Professional Engineer (Electrical) and wrote book entitled: Radio Frequency Radiation: Issues & Standards (McGraw-Hill)

Hammett & Edison Report Excerpt

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“Findings from Decades of Measurements

Our firm has conducted well over 20,000 site evaluations since the FCC first adopted RF exposure limits back in 1985, including projections of anticipated exposure levels and measurement of existing levels. Projections are based on several conservative factors, which tend to overstate actual levels, and since we mostly assume that the radio transmitters operate at their maximum rated power, it would not be possible for projected power levels to increase, unless new transmitters were installed. We have not found any wireless telecommunication base station or “small cell” node, constructed and operated as designed, at which measured levels exceeded the projected levels. In fact, measured levels are typically several times below the projected levels.”

RF Emissions Expert Michael Afflerbach

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- ▶ RF Specialist/Senior Analyst with CTC Media Group, an independent telecommunications consulting firm serving federal, state & municipal clients.
- ▶ Michael Afflerbach has 15 years experience in broadcasting and provides analysis on FCC compliance issues, EAS hardware, automation software and internet and facilities networking issues.
- ▶ Based on his experience and knowledge:
 - ▶ Radio transmitters were designed to be able to operate at maximum rated power.
 - ▶ As long as the facility was properly installed and sited, RF exposure would fall well below the FCC emission standards for public exposure.
 - ▶ It is not likely for a completed facility to later exceed the FCC emission standards after the wireless facility had been constructed, without some external modification.

Other Areas of Research

- ▶ Fail-Safe Devices – do not exist as there is no need
- ▶ City of Lafayette Requirements Relating to RF emissions testing – only a few small cell wireless facilities have been installed and none have been installed for 3 years. Staff has indicated that the testing requirement after 3 years will be challenging to implement.
- ▶ Small Cell Wireless Facilities in Moraga – there are currently no small cell wireless facilities in Town

Changes to Proposed Ordinance

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Staff Recommendation: Eliminate the RF Emission Testing Requirement one year after installation from Section 8.144.035(F)(7)

“At all times the permit is in effect, the Permittee shall ensure that the Small Cell Wireless Facility complies with the most current applicable regulatory and operational standards, including, but not limited to, radio frequency emissions standards adopted by the FCC. The Small Cell Wireless Facility shall be tested by the Permittee at time of construction of the Facility ~~and one year from the date of issuance of the Small Cell Site Permit~~ to verify compliance with FCC radio frequency emissions standards and the Permittee shall provide proof of certification of the testing results to the Town. Testing shall be conducted with the Facility operating at maximum power and shall measure total emissions from the Small Cell Wireless Facility site. Such testing shall be conducted during 37 normal business hours and on a non-holiday weekday.”

Planning Commission Recommendation: Add to the end of Section 8.144.035(F)(7) above:

“The foregoing testing shall also be conducted at the time of renewal of a Small Cell Site Permit.”

Recommended Actions:

- ▶ Conduct Public Hearing
- ▶ Move to Adopt Resolution Recommending to the Town Council Adoption of Ordinance Amending Sections 8.144.010, “Purpose and Intent,” 8.144.020, “Definitions,” and 8.144.035, “General Development Standards and Procedures for Small Cell Wireless Facilities” within Chapter 8.144, “Wireless Communications Facilities, Satellite Dishes and Miscellaneous Antennas” of Title 8, Planning and Zoning, of the Moraga Municipal Code to Revise Applicable Definitions, Standards and Procedures Pertaining to Small Cell Wireless Facilities with amendments to section 8.144.035(F)(7), as recommended by staff