

**CITY OF MILL CREEK  
PLANNING COMMISSION MEETING MINUTES  
April 18, 2019**

Draft

I. CALL TO ORDER:

Chair Eisner called the meeting to order at 7:00 p.m.

II. ROLL CALL:

Chair Stan Eisner

Vice Chair Matthew Nolan

Commissioner Steven Maloney (absent)

Commissioner Brian Hyatt (absent)

Commissioner Daniel Mills

Commissioner Jennifer Parker (absent)

Commissioner Dennis Teschlog

Staff:

Tom Rogers, Development Services Manager

Sherrie Ringstad, Associate Planner

III. APPROVAL OF MINUTES

Planning Commission Meeting of March 21, 2019

**MOTION: Vice Chair Nolan moved, seconded by Commission Mills, to approve the March 21, 2019 minutes as presented. The motion was approved unanimously.**

IV. PUBLIC HEARING

Small Cell Wireless Facilities – Proposed Code Amendments

Associate Planner Sherrie Ringstad noted that the subject of the public hearing is proposed amendments to the Mill Creek Municipal Code relating to wireless communication facilities. She presented a brief PowerPoint presentation including a background, noting that the Commission has reviewed the proposed Code Amendments in numerous work session. She officially entered into the record the draft Planning Commission Resolution, the attached staff report, the draft Council Ordinance containing the proposed amendments, as well as any public testimony received this evening.

Ms. Ringstad stated that a Determination of Non-Significance was issued for the proposed amendments on March 26, 2019, and the appeal period expired on April 9, 2019, and no appeals were received. The public hearing was noticed in the required ways such as publishing a notice in the paper of record and posting on the City Hall and Library bulletin boards. In addition, staff worked with the Communications and Marketing Department and made an extra effort to get the word out through the City's social media outlets.

Ms. Ringstad gave a board overview of the proposed amendments noting that in addition to peripheral amendments, a new MCMC Chapter 17.29 is proposed addressing all types of wireless communication facilities. She noted that Crown Castle had three comments/requests and stated that staff was able to address two as follows:

**17.29.050.B(2)** If the proposed site is not owned by the City, the name, and address and phone number of the owner and a signed document or lease confirming that the applicant has the owner's permission to construct documentation establishing the lease or easement right and permission of the property owner to locate the macro facility on the private property;

**17.29.260 D (1)** - Each strand mounted facility shall not exceed three (3) cubic feet in volume, unless the applicant can demonstrate, to the satisfaction of the Director, that the three (3) cubic feet maximum is technically infeasible;

Crown Castle's third request was regarding the requirement that Macro facilities be located at least 150 feet from residential structures and the right-of-way. Ms. Ringstad stated that this requirement was codified when the Council originally adopted the Code regulating Macro facilities as Conditional Uses. At that time staff looked at all land available in the residential areas that would meet this criteria such as the nature preserve, the golf course, the schools and City parks and it was felt that there were adequate opportunities for locating Macro facilities without having to allow them close to residences. The Commission concurred and no further amendment of the Code was proposed.

Chair Eisner opened the public testimony portion of the hearing at 7:15 p.m.

Kari Marino, Verizon Wireless, 32345 158<sup>th</sup> Ave SE, Bellevue, WA 98008

Ms. Marino, a representative of Verizon, thanked the Commission for the opportunity to comment on the proposed Code Amendments. She noted that the reliance on wireless technology has grown incredibly in last several years. Many businesses and residents in the city rely on wireless devices for many purposes such as 24/7 monitoring for medical devices, smart sensors for traffic lights, smart door bells. In addition, 80% of all 911 calls originate on cell phones. Ms. Marino thanked the City for their collaborative approach in working with Elana Zana with Ogden, Murphy Wallace and for reaching out to Snohomish County PUD and all of the carriers to ensure that we have a viable path forward.

Kathy Putt, Crown Castle, Government Affairs Manager, Bellevue, WA

Ms. Putt explained that Crown Castle is a provider of wireless communication facilities for other carriers. She thanked for Commission for their consideration and applauded the work of staff and the City Attorney. Ms. Putt said that Crown Castle concurs with the amendments proposed by staff to address Crown Castle's most recent comments. She also addressed the Commission's earlier question regarding why they wouldn't always have a lease with the property owner and explained that they may not always be working directly with the property owner, but they would always have something that could demonstrate that they have the right to use the property.

Sherry Clemens, 2703 143rd Place SE, Mill Creek, WA 98012

Ms. Clemens, a Mill Creek resident, stated that she is representing humanity, with respect to the health aspects of exposure to radio waves. She stated that 5G is different technology employing the use of high frequency millimeter waves, which are very dangerous. This is military grade technology. Ms. Clemens added that there has been no research or studies on the health risks associated with 5G technology. She asked the Commission to consider doing what the City of Portland Oregon has done and not rush into approving Code amendments but rather to take a wait and see approach. She stated that we need to listen to the 26,000 scientists who petitioned the

World Health Organization. Ms. Clemens submitted the following documents into the record: USA City Ordinances to Limit and Control Wireless Facilities Small Cells in Rights-of-Ways (7 pages) and Biological Effect of Millimeter Radiowaves (5 pages), both of which are attached.

Kevin Clemens, 2703 143<sup>rd</sup> Place SE, Mill Creek, WA 98012

Mr. Clemens said that he concurred with his wife's statements, especially with regard to taking a wait and see approach. He believes the wireless facilities are dangerous and that more Mill Creek residents need to be involved in the decision. Mr. Clemens said that he believes the City should prohibit small cell facilities in residential areas.

Hearing no further requests to comment Chair Eisner closed the public comment portion of the hearing at 7:30 p.m. and opened the floor for Commission deliberation.

Commissioner Teschlog asked if MCMC Section 17.29.260.D.1, limiting the strand mounted facility to three cubic feet in volume, should identify a not to exceed maximum. Planning and Development Services Manager Rogers explained that the intent is that three cubic feet is the maximum. To be allowed a larger size, they have to demonstrate to the satisfaction of the Director that it is necessary. This isn't a concession they would receive without being able to make a solid case for the exception and even then, they would only receive the minimum amount necessary.

Vice Chair Nolan thanked the people who testified. He also thanked staff, the City Attorney, and the carriers who participated.

At 7:35 p.m. Chair Eisner officially closed the public hearing and read the Planning Commission Resolution title into the record as follows:

“A RESOLUTION OF THE CITY OF MILL CREEK PLANNING COMMISSION, RECOMMENDING APPROVAL TO THE MILL CREEK CITY COUNCIL OF AMENDMENTS TO THE MILL CREEK MUNICIPAL CODE AMENDING TITLE 17.28 CONDITIONAL USE TO REMOVE WIRELESS COMMUNICATION FACILITIES AND ADOPTING A NEW CHAPTER 17.29 AUTHORIZING AND ESTABLISHING STANDARDS FOR THE DEPLOYMENT OF ALL WIRELESS COMMUNICATION FACILITIES.”

**MOTION:** Vice Chair Nolan moved, seconded by Commissioner Mills, to approve Planning Commission Resolution 2019-0166 recommending approval of WCF Amendments to the Mill Creek City Council, including the two revisions proposed by staff to address Crown Castle's comments. The motion was approved unanimously.

V. WORK SESSION

2019 – 2020 Development Services Work Program

Planning and Development Services Manager Tom Rogers reviewed the 2019-2020 Development Services Work Program with the Commission. Some of the highlights were:

Mill Creek Boulevard Subarea Plan

As the Commission is aware, the budget includes funding to prepare a subarea plan for the Mill Creek Boulevard Subarea. The Council is set to hire the consultant, Otak, at their upcoming meeting.

Commissioner Teschlog advised the Commission and staff that he has a professional relationship with Otak, although not in connection with this particular project. He asked if this would require him to recuse himself from discussion. Mr. Rogers said that he believes that Commissioner Teschlog can participate in discussions as a member of the Planning Commission, but if he wanted to serve on the Steering Committee, staff could check with the City Attorney for a legal opinion on whether it could be perceived as creating a conflict of interest.

The Farm Off-Site Wetland Mitigation

Mr. Rogers explained that the Pacific Topsoils site has been purchased by the Developer of The Farm Binding Site Plan to be used for off-site mitigation. At the end of the monitoring period in five years, the City will have the opportunity to accept this land as passive park property. At this time staff will be documenting existing conditions on the site. In 2020 staff will also be looking for potential partnership opportunities to further develop, enhance and maintain the property. Potential partners include groups such as Forterra, Snohomish County, Audubon Society, etc.

Business Park Zoning Code Amendments

Mr. Rogers stated that staff will be looking at principal uses allowed in the Business Park zone district to see if additional uses compatible with the zone district might be added.

Sign Code Review

In the fourth quarter of 2019 staff is scheduled to look at the sign code to ensure consistency with federal laws and for other potential housekeeping amendments.

North Creek Trail Study

The Planning and Development Services Division will be working with the Engineering Division on this project. While the North Creek Trail is substantially complete, there are sections of this Trail that aren't completed yet. The study will look at access gaps, ADA access, coordination with connections to the north and south.

VI. ADJOURNMENT

Chair Eisner adjourned the meeting with the consensus of the Commission at 8:00 p.m.

Submitted by:

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Sherrie Ringstad, Associate Planner

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4/18/19 - Submitted into the record by  
Sherry Clemens

## USA City Ordinances To Limit And Control Wireless Facilities Small Cells In Rights Of Ways

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<https://www.addtoany.com/share?url=https%3A%2F%2Fehtrust.org%2Fusa-city-ordinances-to-limit-and-control-wireless-facilities-small-cells-in-rights-of-ways%2F&title=USA%20City%20Ordinances%20to%20Limit%20and%20Control%20Wireless%20Facilities%20Small%20Cells%20in%20Rights%20of%20Ways>

### LOCAL GOVERNMENT POLICIES & ORDINANCES TO REGULATE AND CONTROL WIRELESS FACILITIES SMALL CELLS

From coast to coast local governments are taking action to protect their communities from the unfettered deployment of 4G and 5G "small cell" wireless facilities. Several cities are passing ordinances that strictly limit the buildout. Many policymakers ask "What are other cities doing?"

This page is a compilation of top examples of what cities are doing to protect their communities. For each city we provide a short synopsis along with a link to download the ordinance or policy. Scroll down to see the City and policy. Please download and share these examples with your community.

Local ordinances note various purposes such as preserving visual character, protecting environmental resources, and protecting residents against adverse health effects. They take a variety of approaches, such as prohibiting small cells in certain areas, creating application and recertification fees and imposing aesthetic and administrative requirements. Some combine several of these approaches.

Importantly, federal pre-emption has been exaggerated. Local governments do have authority to impose procedural requirements for example. Please consider these two useful documents that came out of the efforts in Montgomery County Maryland by the law office of *Mark C. Del Bianco* and which clarify what localities can and cannot do in terms of procedural requirements for companies.

- 12/ 20/2018 "Summary of Proposed FCC Small Cell Order": (<https://ehtrust.org/wp-content/uploads/Guide-to-FCC-Small-Cell-Order.pdf>)A critical read on the FCC order.
- 10/2018 Memo: "Federal Law Does Not Prohibit the County from Imposing Stricter Procedural Requirements on Wireless Facilities Than on Other Pole Attachments" ([https://ehtrust.org/wp-content/uploads/DelBianco\\_Conditional.Use\\_Federal-Law-Does-Not-Prohibit-the-County-from-Imposing-Stricter-Procedural-Requirements-on-Wireless-Facilities-Than-on-Other-Pole-Attachments.pdf](https://ehtrust.org/wp-content/uploads/DelBianco_Conditional.Use_Federal-Law-Does-Not-Prohibit-the-County-from-Imposing-Stricter-Procedural-Requirements-on-Wireless-Facilities-Than-on-Other-Pole-Attachments.pdf))

See more resources on 5G (<https://ehtrust.org/resources-to-take-action-on-us-5g-streamlining-bills/>) – including the research in health effects and impacts to people, trees and wildlife here (<https://ehtrust.org/resources-to-take-action-on-us-5g-streamlining-bills/>). Wireless radiation has harmful biological effects levels far below government limits.

Examples of areas addressed in these ordinances:

#### LOCATION

- Prohibiting small cell installations in residential areas, certain streets, etc

- Requiring installations to be a certain distance away from residences, schools, hospitals, and/or other installations
- Specifying that installations must be relocated if/when they would interfere with a public project

## **AESTHETICS / ENVIRONMENT**

- Aesthetic, design, and noise requirements such as colocation, camouflage, height and light limits, etc.

## **ADMINISTRATIVE / LEGAL**

- Requiring that residents who will be within a certain distance of an installation be notified
- Instating automatic time limits for permits
- Requiring annual recertification fees
- Requiring permittees to defend and indemnify the city from any liabilities arising from permits and the installation, operation and maintenance of small cell installations
- Reserving the right to hire independent consultants at the applicant's expense

## **OTHER**

- Appointing a committee to study the viability of a fiber optic network

## **EXAMPLES OF POLICIES & ORDINANCES**

*Note: These were compiled from EHT research of various sources and a special thank you to Physicians for Safe Technology (<https://mdsafetech.org/cell-tower-and-city-ordinances/>), My Streets My Choice, (<http://mystreetmychoice.com/>) Scientists for Wired Technology (<http://scientists4wiredtech.com/what-are-4g-5g/4g-5g-small-cells-what-you-need-to-know/>) and Last Tree Laws (<https://www.lasttreelaws.com/ordinances.html>) for their extensive resources utilized on this page. Please be sure to go to these pages for more information. Please contact EHT to add your Cities information to this page.*

In addition, Americans For Responsible Technology has created a Sample Small Cell Ordinance ([https://www.telecompowergrab.org/uploads/3/8/5/9/38599771/sample\\_5g\\_code\\_v1.1.pdf](https://www.telecompowergrab.org/uploads/3/8/5/9/38599771/sample_5g_code_v1.1.pdf)) that cities can use as a starting point which incorporates several- although not all- of these issues. Please download their model ordinance and utilize their extensive resources at this link. (<https://www.telecompowergrab.org/tool-kit.html>)

### **Petaluma, California: Ordinance of the City Council of Petaluma**

- Protect environmental resources; protect residents against adverse health effects
- Protect visual character; don't create visual blight
- Protect environmental resources; protect residents against adverse health effects
- Commercial or industrial zones
- Antennas must connect to an already existing utility pole that can support its weight.
- Servicing wires must be installed within the width of the existing utility.
- All ground-mounted equipment not to be installed inside the pole must be undergrounded, flush to the ground, within three (3) feet of the utility pole.
- Dedicated power source to be installed and metered separately.
- 1,500 feet minimum between each Small Cell facility.
- No Small Cell shall be within 500 feet of any residence.
- An encroachment permit must be obtained for any work in the right-of-way.

Petaluma, California: Ordinance of the City Council of Petaluma PDF

([https://drive.google.com/drive/u/1/folders/1wTF4S1dEGijaCFv\\_UuoGfd62R8REfTAn?ogsrc=32](https://drive.google.com/drive/u/1/folders/1wTF4S1dEGijaCFv_UuoGfd62R8REfTAn?ogsrc=32))

### **Fairfax, California: Urgency Ordinance to Establish New Regulations for Wireless Telecommunications Facilities; Ad hoc committee to study viability of fiber network**

Ordinance modeled after Mill Valley's:

- Small cells prohibited in residential zones
- 1500 feet separation
- City to study citywide fiberoptic cable network.

Fairfax, California: Urgency Ordinance No. 819 to Establish New Regulations for Wireless Telecommunications Facilities

(<https://storage.googleapis.com/proudcity/fairfaxca/uploads/2018/10/Ord-819-URGENCYsmall-cell.pdf>)

## Warren Connecticut

This policy defines adequate coverage and adequate capacity. It details that it was designed "to locate towers and/or antennas in a manner which protects property values, as well as the general safety, health, welfare and quality of life of the citizens of Warren and all those who visit this community, minimize the total number and height of towers throughout Warren, and provide standards and requirements for the regulation, placement, design, appearance, construction, monitoring, modification and removal of telecommunications facilities and towers."

- "Coverage is considered to be "adequate" within that area surrounding a Base Station where the predicted or measured median field strength of the transmitted signal is such that the majority of the time, transceivers properly installed and operated will be able to communicate with the base station. In the case of cellular communications in a rural environment like Warren, this would be a signal strength of at least -90 dBm for at least 75% of the coverage area. It is acceptable for there to be holes within the area of Adequate Coverage where the signal is less than -90 dBm, as long as the signal regains its strength to greater than -90 dBm further away from the Base Station."
- "Capacity is considered to be "adequate" if the Grade of Service (GOS) is p.05 or better for median traffic levels offered during the typical busy hour, as assessed by direct measurement of the Personal Wireless Service Facility in question."

TOWN OF WARREN SECTION 29 – SPECIAL PERMIT FOR TELECOMMUNICATIONS: FACILITIES AND TOWERS December 11, 2012, ([https://ehtrust.org/wp-content/uploads/Warren\\_Zoning\\_Telecom\\_Regs\\_-\\_December\\_11\\_2012-4.pdf](https://ehtrust.org/wp-content/uploads/Warren_Zoning_Telecom_Regs_-_December_11_2012-4.pdf)) Warren website link ([https://www.warrenct.org/sites/warrenct/files/uploads/warren\\_zoning\\_telecom\\_reggs\\_effective\\_jan\\_14\\_2013.pdf](https://www.warrenct.org/sites/warrenct/files/uploads/warren_zoning_telecom_reggs_effective_jan_14_2013.pdf))

## Burlington, Massachusetts: Town of Burlington Policy Applications for Small Cell Wireless Installations, October 22, 2018

- Small Cell Committee drafted policy with annual recertification fees. Verizon withdrew its application, concerned by the precedent it would set and questioning its legality.
- Verizon attorney Mr. Klasnick stated "My client respectfully requests to withdraw the petition rather than have a fee," he said.(BCATTV) (<http://www.bcattv.org/bnews/top-stories/verizon-drops-small-cell-wireless-booster-application-in-face-of-fees/>)

The Town of Burlington Policy / Application for Small Cell Wireless Installations approved by the Burlington Board of Selectmen on October 22, 2018 PDF. (<http://cms2.revize.com/revize/burlingtonma/Small.Cell.Wireless.Equiptment.Policy.Approved.10.22.2018.BURLINGTON.MA.pdf>)

According to BCATTV **Verizon Drops Small Cell Wireless Booster Application in Face of Fees:** (<http://www.bcattv.org/bnews/top-stories/verizon-drops-small-cell-wireless-booster-application-in-face-of-fees/>)

"This week Selectman Jim Tigges, the board's representative on the Small Cells Committee, said the group had come up with a new policy for small cell applications. The policy contains a number of provisions while filing an application, including setting installation fees, listing the town department that must receive a copy for review and setting up the timeline for approval.

The Verizon application, however, would not be subject to the policy because it was submitted before its adoption. However, Tigges and the committee did have a number of conditions for the project it recommended to the board. They included:

- No apparatus on double poles
- An agreement to annual recertification
- Equipment shall be located on top of the poles, colored similarly to the pole so as to blend in.
- Equipment shall not interfere with other equipment on the pole, nor obstruct or interfere with access to or operation of street lights or traffic controls devices on the pole.
- Poles must meet ADA standards."

-NEWS: **Verizon Drops Small Cell Wireless Booster Application in Face of Fees** (<http://www.bcattv.org/bnews/top-stories/verizon-drops-small-cell-wireless-booster-application-in-face-of-fees/>), **October 23, 2018**

## Palos Vardes, California

According to citizens of the City, after citizen uproar, Crown Castle began complying with municipal aesthetic requirements and moving proposed locations out of neighborhoods and away from homes. The ordinance has four key components, if these are met the site will almost certainly be approved:



- Minimal antenna size with screening
- All accessory equipment underground (everything except the antenna)
- Combining sites with existing vertical infrastructure (streetlights, traffic signals, etc.)
- Strict location restrictions, no sites on local, residential streets without an exception granted

If they don't comply with these, then the applicant must demonstrate the site is required to fill a significant gap and there is no less intrusive alternative to receive an exception. This is not simply checking a box (i.e. the applicant just claiming these conditions exist) but has to be demonstrated to the City planning commission via engineering analysis.

### **Palos Verdes, California Ordinance Chapter 12.18 – WIRELESS TELECOMMUNICATIONS FACILITIES IN THE PUBLIC RIGHT-OF-WAY**

([https://library.municode.com/ca/rancho\\_palos\\_verdes/codes/code\\_of\\_ordinances?nodeId=TIT12STSIPUPL\\_CH12.18WITEFAPURI-W](https://library.municode.com/ca/rancho_palos_verdes/codes/code_of_ordinances?nodeId=TIT12STSIPUPL_CH12.18WITEFAPURI-W))

### **Monterey California**

Monterey California has now included that it can deny outright an incomplete application "without prejudice". That stops the shotclock, and it allows an application to be resubmitted all over again along with paying the fees again.

to be updated soon.

### **Mill Valley, California: Urgency Ordinance No 18, September 6, 2018**

- New or updated facilities prohibited in residential zones. Commercial only.
- Facilities installed on poles in public right of way must be 1,500 feet apart
- Design, noise standards
- Facilities in public right of way that would interfere with future projects / improvements must be relocated
- Promptly remove facilities when no longer needed; replace with smaller facilities as feasible
- Defend and indemnify the City

Mill Valley, California: Urgency Ordinance No 18, September 6, 2018 ([http://cityofmillvalley.granicus.com/MapView.php?view\\_id=2&clip\\_id=1290&meta\\_id=59943](http://cityofmillvalley.granicus.com/MapView.php?view_id=2&clip_id=1290&meta_id=59943)) PDF

### **News Stories**

Tech Crunch " Bay Area Blocks 5G Deployment Over Cancer Concerns (<https://techcrunch.com/2018/09/10/bay-area-city-blocks-5g-deployments-over-cancer-concerns/>)

Marin Post Mill Valley Council Adopts Wireless Ordinance Protects Community (<https://marinpost.org/blog/2018/9/9/mill-valley-council-adopts-wireless-telecommunications-facility-ordinance-protects-community>)

### **San Anselmo, California Council Policy**

- People within 300 feet of proposed antenna will be notified
- Town is entitled to employ independent consultant at applicant's expense to evaluate exceptions

San Anselmo, California PDF (<https://www.townofsananselmo.org/DocumentCenter/View/23597/Wireless-Facility-Policy-for-new-and-expanded-facilities>)

### **Ross Valley, California: Wireless Telecommunications Facilities**

- Modeled after Mill Valley's
- Adopted regulations prohibit facilities in residential and downtown zoning district.
- Facilities proposed in the public right-of-way subject to separate design criteria.
- Limits height and width of facilities to a minimum necessary for property function.
- Maximum height of 24 feet above the height of the existing utility pole and 7 feet above a street light standard.
- Requires equipment to be placed underground.

Ross Valley, California: Wireless Telecommunications Facilities PDF

([https://www.townofross.org/sites/default/files/fileattachments/administration/page/249/18.55\\_wireless\\_telecommunications\\_facilities.pdf](https://www.townofross.org/sites/default/files/fileattachments/administration/page/249/18.55_wireless_telecommunications_facilities.pdf))

### **News Stories**

<https://www.marini.com/2018/10/27/ross-valley-officials-work-to-tighten-5g-antenna-rules/>

## Danville, California: Proposed Ordinance No. 2018-07: Wireless Communication Facilities

- Aesthetic requirements (design guidelines may be developed and amended from time to time to clarify aesthetic and public safety goals and standards)
- Utilities must be underground to extent feasible. "Meters, panels, disconnect switches and other associated improvements must be placed in inconspicuous locations to the extent possible".
- Permits valid for initial period of 10 years max
- "Where feasible, the location of wireless communication facilities shall be encouraged to be located on publicly owned or controlled property or right-of-way."
- Would allow small cells in residential districts:

–"All facilities shall be substantially screened from the view of surrounding properties and the public view or collocated with existing facilities or structures so as not to create substantial additional visual, noise, or thermal impacts. "

–Property owners within 300 ft of proposed site must be notified

Danville, California: Ordinance No. 2018-07 Wireless Communications Facilities PDF

(<https://www.danville.ca.gov/DocumentCenter/View/2292/Danville-Wireless-Communication-Facilities-Ordinance-PDF?bidId=>)

### Other Links

<http://mystreetmychoice.com/danville.html> (<http://mystreetmychoice.com/danville.html>)

<http://scientists4wiredtech.com/danville/municipal-wireless-code/> (<http://scientists4wiredtech.com/danville/municipal-wireless-code/>)

## Little Silver New Jersey

- Carriers should provide notice to property owners within five hundred (500') feet of the proposed Telecommunications Facility.
- The applicant must demonstrate to the reasonable satisfaction of the Borough that no existing personal wireless Telecommunication Service Facility within a reasonable distance can accommodate needs.
- Indemnification clause: "Each license grantee shall indemnify and hold the Borough and its officers, employees, agents and representatives harmless from and against any and all damages, losses and expenses, including reasonable attorney's fees and costs of suit or defense, arising out of, resulting from or alleged to arise out of or result from the negligent, careless or wrongful acts, omissions, failures to act or misconduct of the grantee or its affiliates, officers, employees, agents, contractors or subcontractors in the construction, operation, maintenance, repair or removal of its Telecommunications Facilities, and in providing or offering Telecommunications Services over the facilities, whether such acts or omissions are authorized, allowed or prohibited by this Chapter or by a grant agreement made or entered into pursuant to this Chapter."
- "Little Silver New Jersey: AN ORDINANCE AMENDING AND SUPPLEMENTING CHAPTER 16A "LAND USE AND DEVELOPMENT ORDINANCE" OF THE REVISED GENERAL ORDINANCES OF THE BOROUGH OF LITTLE SILVER, COUNTY OF MONMOUTH, STATE OF NEW JERSEY AMENDING SECTION 16A-2 "DEFINITIONS" AND 16A-5 GENERAL PROVISION ADDING NEW SUBSECTION 5-28 "PLACEMENT OF TELECOMMUNICATIONS FACILITIES" ([http://www.littlesilver.org/Is/Announcements/Telecommunications%20Ordinance.pdf?1548971889&fbclid=IwAR0NDX2oaUbreLseq9Z\\_HO1rmYV7a16s-kdtWdTxFdkTfbilwNgEuiAamqc](http://www.littlesilver.org/Is/Announcements/Telecommunications%20Ordinance.pdf?1548971889&fbclid=IwAR0NDX2oaUbreLseq9Z_HO1rmYV7a16s-kdtWdTxFdkTfbilwNgEuiAamqc))

## Walnut City, California

"Telecommunication towers and antennas shall not be located within 1,500 feet of any school (nursery, elementary, junior high, and high school), trail, park or outdoor recreation area, sporting venues, and residential zones."

Screenshot of Ordinance from Walnut Website, (<https://ehtrust.org/wp-content/uploads/Walnut-CA-Telcom-Setbacks-1.png>)

To see the code online go to <https://qcode.us/codes/walnut/>, (<https://qcode.us/codes/walnut/>) Click on "Title 6: Planning and Zoning" Click on "Chapter 6.88 ANTENNAS AND COMMUNICATION FACILITIES", Click on "6.88.060 Design standards, See Item "O.

(<https://ehtrust.org/wp-content/uploads/Walnut-CA-Telcom-Setbacks-1.png>)

## Sebastopol, California: City Council Agenda Item Report and Urgency Ordinance (Recommended)

- Purpose: Institute a moratorium on applications for small cells in the public right-of-way until adoption of a permanent ordinance

Previous regulations on telecommunications facilities (according to the recommended urgency ordinance, these did not anticipate 5G and do not address installation of telecommunications facilities in the right-of-way):

- Purpose: Protect visual character, inhabitants, environmental resources

Cannot be located in any required yard setback area

- Facilities within 400 feet of residential areas, schools, churches, hospitals etc must comply with NIER standards
- Minor facilities must be 75 feet away from a "residential dwelling unit" except 1 single family residence on the property where it is located

Sebastopol, California: City Council Agenda Item Report and Urgency Ordinance Establishing a Moratorium on Small Cells in the Public Right of Way ([https://www.ci.sebastopol.ca.us/getattachment/Meeting-Event/City-Council/2018/Special-City-Council-Meeting-October-30,-2018/Agenda-Item-Number-7-Urgency-Ordinance-small-cell-telecommunications-moratorium-\(1\).pdf.aspx](https://www.ci.sebastopol.ca.us/getattachment/Meeting-Event/City-Council/2018/Special-City-Council-Meeting-October-30,-2018/Agenda-Item-Number-7-Urgency-Ordinance-small-cell-telecommunications-moratorium-(1).pdf.aspx))

#### Other Links

- <http://scientists4wiredtech.com/sebastopol/sb-muni-code/> (<http://scientists4wiredtech.com/sebastopol/sb-muni-code/>)
- <http://mystreetmychoice.com/sebastopol.html> (<http://mystreetmychoice.com/sebastopol.html>)

#### **Pittsfield, Massachusetts: Proposed Section: Wireless Communications Facilities**

- Telecom company must prove preferred site/existing structure does not work
- Above ground aesthetic requirements
- Sound and light restrictions with emphasis on industry proving compliance

Pittsfield, Massachusetts: Proposed Section: Wireless Communications Facilities PDF ([https://ehtrust.org/wp-content/uploads/pittsfield\\_-\\_proposed\\_section\\_7.855\\_of\\_zoning\\_ordinance\\_finaldraft\\_cdb.pdf](https://ehtrust.org/wp-content/uploads/pittsfield_-_proposed_section_7.855_of_zoning_ordinance_finaldraft_cdb.pdf))

#### **Hempstead, New York: Wireless Communications Facilities**

- Requires a special use permit for cell towers that encourages location of new wireless facilities so as to minimize their impact on historically sensitive areas around residences, schools, houses of worship, day-care centers. Seven consideration factors are listed in order from more to least preferred, with existing towers being most preferred and new towers in residential zones least preferred.
- Prohibits towers from exceeding a height that permits it to operate without artificial lighting
- Allows the town to hire consultants and do inspections
- Set a fee schedule of \$500 per pole
- Requires a 4 foot warning sign on the pole
- Utilities at wireless installations should be underground when possible

Hempstead, New York: Wireless Communications Facilities Ordinance eCode Chapter 142 (<https://ecode360.com/15967597>)

#### Other Links

<https://mdsafetech.org/cell-tower-and-city-ordinances/> (<https://mdsafetech.org/cell-tower-and-city-ordinances/>)

<https://hempsteadny.gov/permits-and-applications/wireless-telecom-ordinance> (<https://hempsteadny.gov/permits-and-applications/wireless-telecom-ordinance>)

#### **Mason, Ohio: Zoning Ordinance – Wireless Communications Systems**

- No small cells in residential areas or within 100 feet of property used for residential use
- Small cells must be 2000 feet apart (unless colocated)
- Small cells are between 20-30 ft high (may be able to exceed 30 ft if colocated)
- Every attempt shall be made to locate small cells on existing structures; if not available, within public right of way
- All related equipment should be underground or wholly contained so not visible
- Each facility shall consist of no more than 1 antenna/user and capable of providing communication for at least 2 users

Mason, Ohio Zoning Ordinance PDF (<https://www.imagemason.org/download/PDFs/building/MasonZoningCodev-05-15-2017.pdf>)

#### **Sonoma, California: Report and Urgency Ordinance**

On Nov 5, 2018 Sonoma approved (<https://www.sonomacity.org/urgency-ordinance-regarding-small-cell-towers-approved/>) their 5G urgency ordinance.

*"Based on the foregoing, the City Council finds and determines that the immediate preservation of the public health, safety and welfare requires that this Ordinance be enacted as an urgency ordinance pursuant to Government Code Section 36937(b), and take effect immediately upon adoption. Therefore, this Ordinance is necessary for the immediate preservation of the public peace, health, safety and welfare and its urgency is hereby declared."*

The City also has a **Small Cell Tower page** (<https://www.sonomacity.org/small-cell-towers/>).

Sonoma California Ordinance on 5G (<https://sonomacity.civicweb.net/document/17797>) PDF

### **San Rafael, California: City Council Report**

**Dec. 5, 2018 front page news story:** <https://www.marinij.com/2018/12/04/san-rafael-officials-work-to-tighten-5g-antenna-rules/>  
(<https://www.marinij.com/2018/12/04/san-rafael-officials-work-to-tighten-5g-antenna-rules/>)

**Dec. 18, 2018 front page story:** <https://www.marinij.com/2018/12/18/san-rafael-adopts-urgency-ordinance-to-keep-grip-on-5g-proliferation/>  
(<https://www.marinij.com/2018/12/18/san-rafael-adopts-urgency-ordinance-to-keep-grip-on-5g-proliferation/>)

- City Staff Report: URGENCY ORDINANCE AMENDING THE SAN RAFAEL MUNICIPAL CODE TITLE 14 (<https://ehtrust.org/wp-content/uploads/6.c-Small-Wireless-Facilities.pdf>)(ZONING) AND ACCOMPANYING POLICY RESOLUTION TO ESTABLISH PROVISIONS AND PROCEDURES FOR REGULATING THE PLACEMENT OF SMALL WIRELESS FACILITIES (<https://ehtrust.org/wp-content/uploads/6.c-Small-Wireless-Facilities.pdf>)
- San Rafael, California: December 2018 Documentation for City Action on 12/18/2018 ([http://cityofsanrafael.granicus.com/MetaViewer.php?view\\_id=38&event\\_id=1149&meta\\_id=133663](http://cityofsanrafael.granicus.com/MetaViewer.php?view_id=38&event_id=1149&meta_id=133663))

*This document also reviews other Cities 5G small cell policies.*

### **News stories**

*"I want the city and county government to clearly say no to the FCC," said resident Arthur Saftlas. "No 5G installations of any kind in Marin, until it can be proven safe for us and the environment."*- San Rafael, Calif., Officials Work to Tighten 5G Regulation (<http://www.govtech.com/policy/San-Rafael-Calif-Officials-Work-to-Tighten-5G-Regulation.html>)

- San Rafael Residents Take Pre-emptive Strike Against 5G (<https://www.marinij.com/2018/08/21/san-rafael-residents-take-pre-emptive-strike-against-5g-installations/>)

### **Lancaster, Pennsylvania: Zoning Changes via Ordinance 9-2016**

- City Council rushed through zoning changes to declare many streets off limits to new poles (said they could be much taller than existing ones)
- Public Utility Commission stripped Mobilitie and other distributed-antenna companies of utility status, meaning that they would not get any more "certificates of public convenience" in Pennsylvania.

Lancaster, Pennsylvania Ordinance No. 9-2016 (<http://www.cityoflancasterpa.com/sites/default/files/documents/Ord0916%20%20Wireless%20Tower%20regulation.pdf>)PDF (<https://ehtrust.org/wp-content/uploads/Lancaster-Ord0916-Wireless-Tower-regulation.pdf>)

### **News Stories**

- <http://www.philly.com/philly/business/comcast/philly-and-suburbs-brace-for-attack-of-the-small-cells-20170601.html?arc404=true>
- <http://www.govtech.com/dc/articles/Philadelphia-Braces-For-Small-Cell-Future.html>

### **Holyoke, MA: Initial Request**

- Draft policy \$500 fee for city inspection of rooftop poles/roofs every 2 years
- Holyoke has submitted an order from councilor Bartley Roman to limit equipment and require \$500 apiece per small cell—\$500 may exceed FCC limits. At-large councilor Rebecca Lisi, on behalf of a Holyoke resident, recently submitted to the town lawyer a copy of the ordinance drafted by Pittsfield.

Information from <https://www.lasttreelaws.com/ordinances.html> (<https://www.lasttreelaws.com/ordinances.html>)

### **Booneville, Arkansas, September 2018**

Proposed Ordinance would limit cell towers to 250 ft max; industrial zones

### **News Stories**

Cell tower ordinance read for first time at council meeting (<http://www.boonevilledemocrat.com/news/20180905/cell-tower-ordinance-read-for-first-time-at-council-meeting>), Sept 5, 2018

### **OTHER ACTIONS**

**Monterey, California: Verizon's application denied**

Commissioners overruled staff and voted 7-0 to deny telecom giant Verizon's small cell application

Small Cell Towers nixed in 7-hour Monterey Planning Commission (<http://www.cedarstreettimes.com/18237-2/>)

- <http://mystreetmychoice.com/monterey.html> (<http://mystreetmychoice.com/monterey.html>)

#### **Los Angeles, California: Deal with Verizon; letter from Mayor to FCC**

- "in exchange for amenities such as free Wi-Fi in Skid Row and at recreation centers, \$400,000 of scholarship money, and launching an innovation center in the city, L.A. is charging Verizon just \$175 per device per year for 10 years for up to 1,000 installations, plus the cost of electricity." (LA Times (<http://www.latimes.com/business/technology/la-fi-tn-5g-fcc-rollout-20181006-story.html>))
- "In a letter to the FCC, Mayor Eric Garcetti urged the commission to rewrite the ruling before its adoption, arguing that the decision would "insert confusion into the market, and sow mistrust between my technology team and the carriers with whom we have already reached agreements."" (LA Times (<http://www.latimes.com/business/technology/la-fi-tn-5g-fcc-rollout-20181006-story.html>))

#### **News Stories**

LA Times: 5G service rolls out – but not without controversy (<http://www.latimes.com/business/technology/la-fi-tn-5g-fcc-rollout-20181006-story.html>)

#### **San Jose, California: Negotiated agreement**

"officials made improved access to areas with low internet participation a precondition for reducing fees...agreement set tiered costs per network node installation, with lower fees for companies deploying more nodes. Along with this incentive, three companies pledged to contribute a total of \$24 million over the next decade to a digital inclusion fund." (GovTech (<http://www.govtech.com/network/The-Future-of-5G-The-Bitter-Battle-for-Local-Control.html>))

#### **News Stories**

September 2018 The Future of 5G: The Bitter Battle for Local Control (<http://www.govtech.com/network/The-Future-of-5G-The-Bitter-Battle-for-Local-Control.html>)

*Note: These were compiled from EHT research of various sources and a special thank you to Physicians for Safe Technology (<https://mdsafetech.org/cell-tower-and-city-ordinances/>), My Streets My Choice (<http://mystreetmychoice.com/>) and Last Tree Laws (<https://www.lasttreelaws.com/ordinances.html>) for their extensive resources. Please contact EHT to add your Cities information.*

#### **Other Important Websites on 5G and Small Cells.**

WhatIs5g.info (<https://whatis5g.info>)

MyStreetMyChoice (<http://mystreetmychoice.com/>)

Win19.org on Small Cells and 5G (<http://www.win19.org/cell-towers--small-cells.html>)

Americans For Responsible Technology (<https://www.americansforresponsibletech.org/>)

Last Tree Laws (<https://www.lasttreelaws.com/ordinances.html>)

Physicians for Safe Technology 5G Resources (<https://mdsafetech.org/5g-telecommunications-science/>)

International 5G Appeal (<http://www.5gappeal.eu/>)

(<https://ehtrust.org/key-issues/fine-print-warnings/>)

Attachment 2

UDC 612.014.424.5

BIOLOGICAL EFFECT OF MILLIMETER RADIOWAVES

Kiev VRACHEBNOYE DELO in Russian No 3, 1977 pp 116-119

[Article by N. P. Zalyubovskaya, Khar'kov Scientific Research Institute of Microbiology, Vaccines and Sera imeni Mechnikov]

[Text] Morphological, functional and biochemical studies conducted in humans and animals revealed that millimeter waves caused changes in the body manifested in structural alterations in the skin and internal organs, qualitative and quantitative changes of the blood and bone marrow composition and changes of the conditioned reflex activity, tissue respiration, activity of enzymes participating in the processes of tissue respiration and nucleic metabolism. The degree of unfavorable effect of millimeter waves depended on the duration of the radiation and individual characteristics of the organism.

The ubiquitous propagation of radiowaves, radio broadcasting and television is contributing to the appearance of a new physical factor -- electromagnetic waves of the radio-frequency range. In recent years it has been established that radiowaves of different ranges have an unfavorable influence on the organism. The literature data (A. G. Subbota, 1970; N. V. Tyagin, 1971; B. A. Chukhlovin, 1973; M. I. Yakovleva, 1973; Yu. D. Dumanskiy et al, 1975) testify that long stay in conditions of the effect of radiowaves (the dm and cm ranges) leads to change of the functions of the nervous, cardiovascular and other systems of the organism, with the development of a characteristic complex of symptoms which permit speaking of a special nosological form of disease -- radiowave disease (M. N. Sadchikova, 1973). However, in the literature there is almost no information about the biological effect of radio frequencies of the millimeter range, although that range is widely used in technology and the question of its biological activity has acquired special urgency.

The goal of the present investigations consisted in study of the physiological and biochemical processes lying at the basis of the changes which occur in animals as a result of the effect of radiowaves in the range of 5-8 mm, at a density of the flow of power of 1 milliwatt/cm<sup>2</sup>. The investigations were conducted on rats of the Wistar line and mice of the CBA line, irradiated for 15 minutes daily in the course of 60 days in the volume resonator of an experimental installation working on the basis of a type OV-12 generator.

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rats irradiated by millimeter waves the ascorbic acid level dropped 3%. The functional changes established in the content of 17-ocs in the blood plasma and of ascorbic acid in the adrenal cortex of irradiated animals indicate the influence of millimeter radiowaves on the central components of the hypothalamus-hypophysis system -- the adrenal glands with involvement of a number of humoral components.

The conducted investigations showed that in animals subjected to the effect of millimeter radiowaves there was a variation of the content and ratio of catecholamines: in the blood the concentration increased, in the hypothalamus the adrenaline content increased and the noradrenaline level dropped, in the cerebral cortex there was a slight redistribution of catecholamines, in the adrenal glands the adrenaline content doubled and the noradrenaline level dropped by 11% in comparison with that in unirradiated animals. The adrenaline concentration in the adrenal glands remained elevated by 60% 10 days after the irradiation ceased. The obtained results indicate well-expressed changes of metabolism of catecholamines under the influence of millimeter waves both in the hormonal and in the sympathetic components of the sympathetic-adrenal system and also reflect changes of the functional activity of its hormonal and mediator components.

The main mass of the energy in tissues and organs of animal organisms, as is known, is released during the biological oxidation of organic substances, in which case the greater part of it is accumulated in the form of macroergs. The processes of bioenergetics, occurring mainly in the mitochondria with the direct participation of respiratory enzymes which accomplish the terminal stage of biological oxidation, are of universal importance and assure the functional activity of organs and tissues, the synthesis of proteins and nucleic acids, the formation of some intermediate products of exchange, etc.

The conducted investigations showed that the irradiation of animals by millimeter waves caused changes of the processes of oxidative phosphorylation in the liver, kidneys, heart and brain of the animals. The irradiation inhibited the oxygen consumption rate by the mitochondria of those organs in the active phosphorylating state and slowed down the rate of respiration upon exhaustion of the ATP. In the liver and kidneys of irradiated animals the intensity of phosphorylation decreased by 64%, the values of the respiratory controls decreased by 26 and 28% respectively and the changes were less expressed in the heart and brain.

The established disorders of the process of conjugate oxidative phosphorylation in the mitochondria of irradiated animals testify to suppression of energy exchange and can be a result of changes occurring in the electron transport chain. The expressed hypothesis was confirmed by the results of investigations of the activity of enzymes participating in the processes of tissue respiration. In the mitochondria of the livers of irradiated animals the succinate dehydrogenase activity increased by 34% and the cytochromoxidase activity decreased by 37%. Those data testify to destruction of the cytochrome chain.

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Study of the morphological, functional and biochemical indicators, which play an essential role in the formation of reactions of the organism, disclosed various disorders in the experimental animals.

As is known, the energy of millimeter waves, because of its weak penetrating ability, is absorbed primarily and mainly by the skin. Our investigations have shown that in the skin of irradiated animals deformation of the receptor apparatus and well-expressed changes of a reactive character were observed. In the skin layer properly speaking appeared bunches of nerve fibers with hypertrophy of a portion of the fiber and sections with demyelination. In the dermis, among the collagen fibers were small trunks of various thickness, the neural conductors of which were fragmented in separate cases, and phenomena of demyelination were observed in the surface layers.

As the results of histomorphological analysis showed, in the functionally active structures of tissue of the myocardium, liver, kidneys and spleen disorders of the hemodynamics were established, with disruption of the permeability of the vesicular membranes, the appearance of micronecroses and subsequent tissue dystrophy. Moreover, qualitative and quantitative shifts were revealed in the erythrocytic and leukocytic composition of the blood of irradiated animals, indicating suppression of the hemopoietic function of the bone marrow and lymphatic system. Noted in the composition of the red blood was eosinophilia, neutrophilia and lymphopenia, and lowering of the hemoglobin level and reduction of the number of erythrocytes were observed, which was determined to a considerable degree by the retention of erythrocytes in the bone marrow. In the latter occurred an increase of the number of erythroblastic cells and decrease of cells of the leukoblastic series.

Under the effect of millimeter waves of low intensity the degree of affection depends on the general condition of the organism and evidently is not so great, as the observed disorders are in the main reversible.

A characteristic feature of the biological effect of radiowaves was changes of the state of various sections of the central and vegetative nervous systems which involve directly or indirectly disorders of the principal functions of the organisms (M. I. Yakovlev, 1973).

As a result of investigations conducted by us on animals irradiated with millimeter waves, disorders of conditioned reflex activity have been established: weakening of the stimulatory process, reduction of the size of the latent period in response to different conditioned stimuli (light, noise or pain) and disinhibition of differentiation reactions. Disorders of the stimulatory and inhibitory processes displayed in animals during the repeated effects of millimeter radiowaves can be considered suppression of the function of the central nervous system, although the developed inhibition can be linked with protective-compensatory reaction of the organism in response to irradiation.

In the blood plasma of irradiated animals the content of 17-corticosteroids increased ( $22.64 \pm 2.18$  mkg per 100 ml of plasma of the irradiated and  $14.98 \pm 2.01$  mkg of the unirradiated. Along with that, in the adrenal cortex of



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Very essential in the system of enzymes of cell energy supply is the role of the ATPases regulating the processes of formation and use of the energy of macroergs (V. P. Skulachev, 1969). The conducted investigations revealed in the mitochondria of the livers of irradiated animals an increase of ATPase activity by 63% as compared with similar indicators for the unirradiated. In that case in the liver and spleen of animals irradiated many times by millimeter waves there was a decrease of the content of adenylnucleotides by 61 and 68% respectively.

Investigation of the influence of millimeter waves on the state of nucleic exchange showed that in the liver, spleen, kidneys, lungs and heart there was a reduction of the content of nucleic acids and suppression of the rate of  $^{14}\text{C}$ -thymidine in DNA and  $^{14}\text{C}$ -uridine in RNA. In a comparison of the results of quantitative determination of nucleic acids it was established that the rate of inclusion of the predecessor in RNA and its content in the organs changes less than the DNA. The change of the nucleic acids concentration was more expressed in the liver, spleen and kidneys than in the heart and lungs. Together with reduction of the nucleic acids content, the quantity of acid-soluble products in the liver and spleen of irradiated animals increased by 35 and 43% and the activity of ribonuclease and DNAase increased 50%.

Under the influence of radiowaves the protein spectrum of the blood serum changed (the albumin content decreased and the number of globulins increased, which led to decrease of the value of the albumin-globulin coefficient) and the number of free amino acids decreased by 22%. An indicator of the reduced level of protein synthesis in the irradiated animals also was the established reduction of the rate of inclusion of  $^{14}\text{C}$ -methionine in proteins of the liver, spleen, lymph nodes and thymus. The presented data testify to substantial changes in the protein metabolism which occur under the influence of multiple irradiation of animals by millimeter radiowaves. Evidently the reduction of the general energy level occurring in the organism under the influence of millimeter radiowaves had an effect on the formation of macroergs and caused a suppression of all functions of the organism, including suppression of synthetic processes but especially of nucleoprotein metabolism, which is very energy-consuming.

The conducted experimental investigations were compared with observations of the state of health of 97 persons working with generators of the millimeter range on the basis of systematic conducting of biochemical analyses. The obtained data confirmed the existence of an influence of radiowaves on the state of metabolic processes in the organism, in particular, changes of the indicators of protein and carbohydrate metabolism were revealed and disturbances of the indicators of immuno-biological reactivity and of the blood system were established.

Thus the conducted investigations indicate high biological activity and an unfavorable influence of millimeter radiowaves on the organism. The expressiveness of the biological reactions increased with increase of the period of irradiation and depended on individual characteristics of the organism.

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