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What is 5G?

5G is the fifth generation of wireless networking technology used in cellular networks.

What is the difference in 4G and 5G?

5G is being deployed because user patterns have changed. With many using their phones as they would a computer and streaming becoming common, customers are consuming more data and straining bandwidth. This slows service and drops connections. 5G uses high-frequency radio waves the length of millimeters instead of centimeters like 4G. Additionally, the service range on a 5G tower is about 1,000 feet, which is less than two percent of a large tower. This means that instead of several large towers around, there will need to be many, many small towers in the form of for example, boxes with wireless antennas. Many of these towers will be placed in city rights of way on public infrastructure like streetlamps, traffic lights and utility poles (see next question on why). Whereas a 4G tower is designed to support about 6,500 devices per square mile, 5G can support about 1 million devices in the same area thanks to many small towers creating the coverage grid. 5G deployment will reduce delays in data transfer even during peak times.

Can the City prevent 5G from coming to Sedona?

In 2017, the Arizona state legislature passed House Bill 2365 significantly preempts cities' ability to regulate wireless deployment because it gives the wireless industry the right to place wireless towers in city streets' rights of way. Sedona's rights of way are typically 50 feet wide and if 24 feet of that is street, that means 13 feet on either side of the street is allowable for wireless towers. Additionally, this bill makes it inexpensive (a comparably small fee) for a company to site a cell tower and requires the City to approve an application within 60-days with only an over the counter permit, and no public hearing or notification process.

This legislation essentially says that wireless is allowed to be sited in many areas for less money than they are paying to, for example lease from a private property owner, with a quick, over-the-counter permit.

Though the new legislation largely prohibits the city's ability to regulate wireless facilities in the rights of way, the city's Wireless Ordinance (see below) provides regulations for towers that site outside the rights of way. However, with such a quick and easy process that is described above, it is expected wireless companies will choose to site towers in public rights of way.

Didn't the city do a Wireless Master Plan?

In 2016 and 2017 the City embarked upon an effort to update its Wireless Ordinance, last updated in 2003, to address new technologies and conform with newer federal regulations and restrictions, and to develop a Wireless Master Plan to proactively identify suitable (city-owned) sites for future wireless infrastructure.

While the Wireless Ordinance was updated in 2018, the Wireless Master Plan was never adopted. There was considerable controversy surrounding the various sites under consideration and the consensus from City Council and the community was that it was preferable to wait until the providers identify sites on their own, and then the City react to those requests, rather than the City identifying sites and encouraging providers to locate there. This was akin to "rolling the dice" with respect to future locations and was preferred because virtually no one was willing to accept a predestination that wireless infrastructure would be located near them in the future. Concerns were both related to aesthetics and health/safety (radio frequency emissions, or RF). The Ordinance did preserve a caveat that the City's first preference would be for providers to site on City-owned property when possible, which could be negotiated later, on a case by case basis. As a landlord, the City can negotiate additional restrictions or concessions and the revenue could be used to benefit the public.

For additional detail and specifics, the full Wireless Ordinance can be accessed [here](#).

Why are some people worried about 5G?

Numerous citizens present evidence of negative health effects associated with (radio frequency emissions) RF. The city has not taken a position on these claims but has attempted to advocated on behalf of residents' interests where the City felt like change could be made. Examples include smart meters and the attempt to complete a Wireless Master Plan.



The crux of the discussion with 5G, RF and if the City can stop towers from being built here though is that ultimately, federal law says the City can't make a decision to approve or deny a tower based on the claimed health effects of RF. The only reason the City can deny a permit for a 5G tower is if it doesn't meet the standards in the City's Wireless Ordinance -- the main standards being height, color, screening and placement.

Is there a current 5G tower or plan for a 5G tower?

No, there are currently no 5G towers in Sedona's city limits.

Who should I contact if I want to share my views on the state or federal legislation?

Regarding state law, your Arizona legislators (Sedona is in legislative District 6) and regarding federal law, your Congressperson (Sedona is Congressional District One) or an Arizona Senator.