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To: [Neysa Hinton](#); [Diana Rich](#); [Una JM Glass](#); [Patrick Slayter](#); [Sarah Glade Gurney](#); [City Council](#); [Mary Gourley](#); [Lawrence McLaughlin](#); [Dante Del Prete](#)
Subject: Maintain the legacy water meters
Date: Monday, January 17, 2022 4:11:02 PM

Dear Mayor Patrick Slayter, city council members and staff,

Tomorrow night the city manager will present a report on the smart water meters. We want Sebastopol to maintain the legacy water meters and comply with the General Plan Community Health and Wellness Goals and the 2013 ban on smart meters. If customers want to understand their water usage data they can **opt-in** to a digital non-transmitting water meter like the 56 water meters the city tested. We don't want smart water meters and an opt-out won't fix this.

The public process on the smart water meters decision was limited and confusing. Technical details about how the water meters worked were sparse and the issue was hidden under energy efficiency. City staff marginalized "anti-EMF" people and created a survey to support an outcome they wanted. They asked, "do you want a cellular water meter?" What if they had asked, "do you want a smart water meter?" or, "do you want a city wide radar installation for water meters?"

EMF Safety Network hired an RF engineer to review the technical specifications the city sent in response to our public records act request. This engineer also reviewed the FCC RF report. If you are interested in understanding how the meters work or reading the timeline of information found in the emails between the city and Syserco that info is below.

How the meters work:

Sebastopol ordered 3002 Badger Orion E series water meter "endpoints". An endpoint houses an antenna. The 56 test meters Sebastopol trialed last year did not include an antenna. 3002 water meters collectively would transmit a minimum of approximately 12,000 times a day unless they are in activation or troubleshooting mode when one meter can transmit every 15 seconds.* They transmit in the 902-928mhz range. This is the same frequency range the Navy used for radar. The meters transmit pulsed radiation and use a frequency hopping system. The meters also emit spurious unintentional radiation. These are created by harmonics and reflections within the action of the meter. The meters work with infrared signals. The maximum power output per meter is 1/4 watt. Collectively the installation would add 750 watts throughout the city. The antennas are isotropic, meaning they radiate out in all directions. One meter can transmit about 1/2 mile, depending on factors like how tall the cell tower is, interference in the area, buildings and trees etc. No new repeaters or collectors are used. Water absorbs radiation. The meters work with the internet of things cellular network and are "smart city ready".

*Smart water meters would not only transmit RF to the cell towers, but the cell towers would re-transmit RF to the city, and the city can transmit RF to the water meters. Plus the city would encourage customers to use their cell phones (more RF) to get their water usage data. (This "benefit" would not be available to people, low-income and seniors who live in apartments- nor were they invited to take the survey.)

Timeline found in 933+ pages of emails between city staff and Syserco on the smart water meters.

Oct. 2018: Syserco stated the water meters could be drive-by or AMI and that AMI meters

transmitted every 4 seconds at 1 watt of power and additional repeaters and collectors would need to be installed.

Oct. 2020: water meters could be drive-by or touch stick.

Jan. 2021: the options for RF transmissions were none, touch, drive-by or remote.

Feb 22 EMF Safety Network director emailed the city with questions about the 56 water meters being tested. The Public Works Director wrote to Syserco and Badger meter asking for a “standard reply” to our inquiry. [we were told the meters were digital, but there were no RF emissions from the water meters.]

Feb 24 city staff suggested a survey and wrote that customers support radio read meters and sent some “useful information” about EMF concerns that included a page on EMF protections products and smart meter papers from CCST, EPRI, UTC, FDA, (ie government assurances that smart meters are safe.)

Feb 25 the city manager advised the Public Works Director to say the city has no plans for wireless water meters.

Feb 25, the Public Works Director supports a survey to gather a representative tally of residents desires, and not just the opinion “of a few anti-EMF voices that frequent city council meetings”.

Feb 25 the Public Works Director writes the water meters transmit “a minimal ping of information every 15 minutes”.

May 2021 the Public Works Director wants to poll the council on using radio read [wireless] meters.

June 14, 2021 the Public Works Director repeats the water meters transmit “a minimal ping of information every 15 minutes”.

July 6 at a late night city council meeting the idea of a one question survey is discussed but approved by the council and they are told the water meters transmit a “small ping 4 times a day.

Maintain the legacy meters to protect public health and the environment.

Thank you,

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Save Lives, Save Nature, Reduce EMFs