

About sirens . . .

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The Montgomery County Sentinel has run a recent series of investigative reports highlighting the lack of early warning sirens in the county. What follows is a reponse from the manager of the county's emergency security office.

Editor:

I am the manager of the Montgomery County Emergency Management and Homeland Security Office and have been an emergency manager for more than 18 years. I have been part of many emergencies and have studied hazards with the understanding that my decisions are critical to the public safety in Montgomery County. Your series on tornado sirens, including the story in your edition of June 23 ("County Council has virtually no stance on safety sirens") has not included certain relevant information on the subject in regard to Montgomery County. I wanted your readers to know the following:

Are the alternatives to sirens?

Tornado sirens get less consideration in states like Maryland because more reliable and more flexible options are now available. My recommendations for residents:

Purchase a NOAA weather alert radio with battery backup. These devices are more effective, quicker at notifying and do not have governmental legacy costs. NOAA weather radios emit an alert signal when the National Weather Service issues a warning for the County. Weather radios are available starting around \$30.

Sign up for Alert Montgomery at www.alert.montgomerycountymd.gov. Messages can be tailored to a person's lifestyle, but no one who signs up can opt out of tornado warnings. This is the only weather alert sent to all users regardless of the time of day.

Monitor all weather alerts and warnings provided through mass media, Alert Montgomery or the Emergency Alert System (This sends alerts through TV and Radio on watches and warnings). Tornadoes result out of dangerous weather conditions that are often known. Be aware of planned activities if the County is under a severe storm watch, warning or tornado watch. These other alerts are often released hours in advance of a storm that is capable of producing a tornado.

How effective are sirens?

The most common complaint about sirens is that they can't be heard indoors. Sirens can be heard outside, but many tornado after-action reports acknowledge that people sleep with a false sense of security when relying on tornado sirens. It is estimated about 33 percent of the population will sleep through tornado sirens going off. I'm more concerned when hearing about studies such as the one done after a 1980 tornado impacting Kalamazoo Mich., where only 17 percent of residents heard the sirens. Another recent study in Saint Louis County, Mo., showed that of their 210 sirens, 14 did not work, 13 did not rotate and 54 had damaged speakers limiting their range. Nowhere is the false sense of security more apparent than the tornado fatality rates at night, which are 2.5 times greater than during the day.

What is the tornado risk to Montgomery County?

Two common scales are used to measure tornado intensity—the Fujita (F) and the Enhanced Fujita (EF). The tornadoes we hear about most are powerful F4 and F5 tornadoes like the one that hit Joplin several weeks ago. The last tornado measured greater than an F1 to hit Montgomery County did so in 1937.

Montgomery County does have tornadoes--we just do not have a history of many strong ones. In the late 1990s, the Maryland Disaster Center calculated the tornado fatality rate in the state over a 45-year period and concluded the risk was less than 1 in 88 million.

The last tornado fatality in Montgomery County was in 1929, several decades before the use of radar to warn people of severe weather. I'm not saying we won't have a strong tornado or even a fatality, just that the risk is very low. We hope to initiate a program next year that will provide NOAA weather alert radios to owners of mobile homes in the County, which are most vulnerable.

What would a siren system cost for the County?

Estimates range from \$1 million to \$30 million, but I suspect the real cost of a system that can provide both tone and voice alerts at the Federal Emergency Management Agency recommended decibel levels for the whole County would be approximately \$8-12 million. In addition, annually, hundreds of thousands of dollars would be needed for maintenance, education, testing and management. Saint Louis County, similar in size and population density to Montgomery County, recently spent \$7.5 million to "upgrade" its system. There also will be legal costs and easement rights that would be needed to get approval for the more than 200 locations in the County to install the 50-foot poles required to hold the sirens.

The tornado threat is low, but the siren cost is high—especially when there are better more reliable systems out there. For these reasons, I have not recommended that Montgomery County purchase a tornado siren system.

Chris Voss

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