

SUTTER COUNTY PUBLIC HEALTH

Wildfire Smoke Estimator Tool

Smoke density can vary widely from one local area to another and also with time of day. Air Quality reports and advisories are very important guidance and this tool can help with the very localized variability that can happen.

Smoke density can be roughly estimated based on the visibility and can assist individuals to adjust their activities and time outdoors. According to the Air Quality Management District, the following index will assist in assessing the air quality based on the visibility in your area. To assess visibility:

- Face away from the sun. Determine visibility range by looking for black or dark-color targets that are at known distances (miles).
- The visible range is the point where even high-contrast objects disappear.
- After determining visibility in miles, use the following Wildfire Smoke Visibility Index to assess air quality.
- Do not use this tool if the relative humidity is greater than 65%.

Visibility Range	Health Category	Health Effects
10 + miles	Good	None
5 – 10 miles	Moderate	Usually sensitive people should consider reducing prolonged or heavy exertion
3 – 5 miles	Unhealthy for Sensitive Groups	Sensitive people should reduce prolonged or heavy exertion.
1.5 – 2.5 miles	Unhealthy	Sensitive people should avoid prolonged or heavy exertion. Everyone else should reduce prolonged or heavy exertion.
1 – 1.25 miles	Very Unhealthy	Sensitive people should avoid all physical activity outdoors. Everyone else should avoid prolonged or heavy exertion.
<0.75 miles	Hazardous	Sensitive people should remain indoors and keep activity levels low. Everyone else should avoid all physical activity outdoors.

For distances, you can try your electronic device map app or look at a map of the local area that has a mile scale. Some examples of local distances: From the junction of Hwy 99 and Hwy 20 to the Sutter Buttes is 13 miles; the distance between the 5th Street and 10th Street bridges is about 0.5 mile.

In addition, residents who see or smell smoke should consider these precautionary measures:

- Stay indoors; set indoor and car air conditioning to re-circulate; avoid using a whole-house fan or a swamp cooler.
- Reduce activity, especially outdoor physical activity, during times when air quality is reduced or when you can smell smoke

- Children, teens and elderly people should consider avoiding outdoor activities particularly prolonged outdoor exertion. Parents of children and teens involved in youth sports programs should consider whether their children be allowed to participate when smoke is in the air.
- Avoid adding other sources of indoor air pollution, such as tobacco smoke, heating with wood stoves, frying or broiling foods, vacuuming, and using paints, solvents, adhesives or ozone generator air cleaners.
- Children, pregnant women, older adults, and people with respiratory or heart conditions should be particularly careful to avoid unnecessary exposure to smoke
- People with asthma, heart or other lung conditions should follow their healthcare plans carefully; if your symptoms start getting worse, contact your doctor as soon as possible.
- Cloth and ordinary face masks do not provide any protection against the hazardous very small particles in wildfire or wood smoke. Well-fitted dust masks or “N95” respirators may provide some protection if exposure is unavoidable, but are much less effective protection than limiting activity and smoke exposure. People with health conditions may not be able to use masks or respirators – check with your doctor first.
- Pay attention to air quality advisories and the recommended protective measures for the day’s air quality level for your health status.
- You can sign up for local air quality reports by email or text message from the Feather River Air Quality Management District website at www.fraqmd.org
- Keep airways moist by drinking lots of water. Breathing through a warm, wet washcloth can also help relieve dryness, but does not filter out the hazardous smoke particles.
- Avoid the fire areas.

While all persons may experience varying degrees of symptoms, more sensitive individuals, such as the young, aged and those with respiratory conditions are at greatest risk of experiencing more aggravated symptoms. Symptoms may include, but are not limited to, coughing, watery and itchy eyes, and difficulty breathing. Persons experiencing questionable or severe symptoms should seek professional medical advice and treatment.

County officials will continue to monitor air quality in Sutter County and provide updates on this advisory as needed. For current information, go to the Feather River Air Quality Management District at <http://www.fraqmd.org/> or check the Sutter County and Sutter County Public Health Facebook pages.

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