

## **Light rain anticipated for Thursday, pollution levels to remain 'moderate'**

Sun-Star Staff

Merced Sun-Star, Wednesday, November 12, 2014

Mercedians will wake up to cloudy skies on Thursday morning as forecasters anticipate some light rain throughout the day.

According to Steve Mendenhall, a meteorologist with the National Weather Service in Hanford, there is a 60 percent chance of rain during sunrise and late morning hours. There is a 30 percent chance of rain for afternoon hours.

Since July 1, Merced has received 0.88 of an inch of rainfall, well below the normal of 1.61 inches for this time of year, creating a deficit of 0.73 of an inch, Mendenhall explained.

And while any rain is good news during a four-year drought, recent abnormal weather conditions have contributed to high pollution levels.

Last week, San Joaquin Valley Air Pollution Control District officials announced that higher moisture levels brought on by recent rain were followed by unseasonably high temperatures. This resulted in an inversion layer that trapped fine particulates in the air basin. Pollution levels tripled, resulting in unhealthy air quality throughout Valley counties.

Air district officials said that there was some improvement from last week to this week, but they were unsure of the impact today's possible rain might have on the Valley's air quality.

However, Mendenhall does not expect pollution levels to be as extreme as last week.

To see any major improvement in air quality, a storm and strong winds are needed, air officials said.

According to the air district's Real-Time Air Advisory Network, today's ozone levels did not exceed Level 1 with no action to protect one's health needed. But fine particulate matter levels were only "moderate." With moderate levels, the air district suggests that sensitive individuals consider reducing prolonged outdoor activities. These levels, however, were an improvement from last weekend's levels, when particulate matter pollution reached Level 5, at about 98 micrograms per cubic meter, which the air district classifies as "very unhealthy."

The district forecasts that Thursday's particulate matter levels will remain moderate, at about 70 micrograms per cubic meter.

## **City residents finally get break from awful air**

By Steven Mayer

Bakersfield Californian, Thursday, Nov 13, 2014

Breathe deep, Bakersfield.

The air quality in the southern San Joaquin Valley saw dramatic and welcome improvement late Tuesday and Wednesday, bringing relief to residents who had been living through one of the worst concentrations of ultra-fine particulate pollution seen this time of year.

Concentrations of PM2.5, the hazardous and ultra-tiny soot particles that are about 1/30 the width of a human hair, spiked beginning last week and over the weekend, with levels hovering in the highest, or worst, category described by air officials as "very unhealthy."

"Once in a great while we have a perfect storm, or lack thereof," said Seyed Sadredin, executive director of the eight-county San Joaquin Valley Air Pollution Control District.

Indeed, a strong storm would have helped blow out the hazardous air. Instead, a high-pressure ridge parked itself off the Pacific coast for several days, lowering the inversion layer over the valley and locking in pollutants.

"The lid was pressed down on the bowl," Sadredin said, referring to the topography of the valley. When the "lid" pressed lower, existing particulate matter was concentrated at ground level.

Over the weekend, PM2.5 concentrations spiked at 122 micrograms per cubic meter. "Good" is considered 12 and lower. "Moderate" air quality is 35 and lower. More than 75 is considered "very unhealthy."

If concentrations are forecast to be higher than 20 micrograms per cubic meter, fireplace wood burning restrictions automatically kick in. But for much of the past week, Bakersfield saw concentrations four and five times that wood burning threshold.

And experts say that's not a good thing as fine-particulate pollution is extremely harmful to human health and can cause or exacerbate respiratory and lung disease, and even cause heart attacks and stroke.

Ryan Allen, emergency room director at Bakersfield Heart Hospital, said the ER has seen an increase in respiratory complaints at the hospital.

"More specifically, we have seen an increase in patients complaining of shortness of breath who have congestive heart failure, pulmonary hypertension, and right sided heart failure," he said.

Poor air quality, he noted, can exacerbate these cardiovascular conditions.

Some care providers, including Kaiser Permanente and Kern Medical Center, did not experience measurable effects due to the dirty air.

But Michelle Willow, a spokeswoman for Bakersfield Memorial Hospital, said the hospital's ER has charted a significant increase in patient visits.

Jenny Wilson, director of nursing operations for the ER, told Willow the emergency department was seeing 30 to 40 more patients per day than normal.

Sadredin, the air district chief, said beginning Tuesday and continuing Wednesday, the same weather system bringing snow to the upper Midwest was active enough to dislodge the offending ridge of high pressure.

The lid on the bowl began to rise higher, immediately cutting levels of the tiny soot particles.

"It's good for the valley, but not so good for Frazier Park and Lebec," he said, as the rising inversion layer could allow PMs to rise into the mountain communities, potentially triggering their first fireplace restriction of the season.

Unsettled weather forecast for Thursday and Friday could solve everyone's problem, at least temporarily.

"The new system," Sadredin said, "may ultimately provide relief for everybody."

## **Earth Log: Are there lessons in November's awful air?**

By Mark Grossi

The Fresno Bee, Monday, Nov 10, 2014

The San Joaquin Valley's eye-stinging haze, filled with dangerous debris last Thursday, foreshadowed a most uncomfortable weekend, especially for those with heart and lung problems.

On Thursday, all but one Valley air monitor listed by the California Air Resources Board showed big problems. Only Tracy in San Joaquin County showed healthy air. Every other monitor from Stockton to Bakersfield recorded at least one hourly spike that was twice the average daily standard of 35 micrograms per cubic meter of air.

Friday night football was played in particulate pollution nearly twice the average daily federal health standard in some places. By Sunday, summer-like ozone breached the federal eight-hour standard in Bakersfield, Arvin and Maricopa.

Just from one four-day episode, it's already a memorable November for air quality. Are there lessons here? Probably. I'll come back to that in a moment.

The worst pollution trap over several days was Bakersfield. It lived up to its reputation as ground zero for the Valley's worst microscopic soot, chemicals and other debris, called PM-2.5. I wrote about the problem in Sunday's newspaper.

How bad was it in Bakersfield on Sunday? At noon on a warm almost windless day, PM-2.5 was three times the daily health standard.

But the ozone was the real kicker. It was well above the health standard. Bakersfield residents suffered a double-whammy. One Bakersfield resident told me he could taste the air – a little like an unfiltered cigarette.

Not every monitor recorded PM-2.5 as bad as Bakersfield's. Clovis was another hot spot on Thursday and Friday, but the monitor unfortunately went down on Saturday and Sunday.

The San Joaquin Valley Air Pollution Control District blamed a power outage for knocking out the equipment, which the district got back online at 8 a.m. Monday.

The lessons? How about the advice of a doctor?

Dr. A.M. Aminian, a Fresno allergist, has told me many times that people need to shift into a defensive mode immediately when the air turns bad. For asthmatics and others with sensitive lungs, stay indoors, stay on your medications, monitor your reaction closely.

Get to the doctor quickly if your symptoms get out of control.

For others, remember to shower and change your clothes after you go back indoors for the rest of the day. Pollution particles can linger and find their way into your nose. These PM-2.5 specks can pass through your lungs into your body – into the heart, liver, kidneys.

PM-2.5 is more dangerous than ozone, health researchers have concluded. Of the more than 800 premature deaths each year due to air pollution, the overwhelming majority of them are blamed on PM-2.5.

Bigger lessons? Given the dangers in this type of pollution, should public leaders be making a bigger fuss?

The Valley air district warns the public about these episodes. Schools watch hourly pollution updates online and keep children indoors during big spikes. Similarly, individual school districts decide when to delay outdoor sports events, such as football.

But many activists have told me over the years that it's not enough. The air district does not have the authority to temporarily stop outdoor activities, but it could publicly ask school districts to stop the activities on bad days, they say.

District leaders say they actually do ask schools to refrain from outdoor sports when the air gets into crisis mode. The district notifies the public and urges everyone to follow the guidelines connected to the RAAN system – the "real-time air quality network."

RAAN is an hourly monitoring system that people can see online. The system includes detailed guidelines on outdoor activity. Those guidelines, which are not mandatory, specifically say: "Event must be rescheduled or relocated" when the pollution is above 75 micrograms per cubic meter of air. That translates to 165 or above on the Air Quality Index, described in the RAAN users guide.

Does it work? That's probably a good place for a debate to start.

[Letter to the Bakersfield Californian, Thursday, Nov 13, 2014:](#)

### **A few healthful tips for dealing with valley's air**

With the recent spikes of air pollution in the Central Valley, the American Lung Association in California reminds residents to avoid prolonged outdoor exposures when air pollution reaches unhealthy levels. Residents with respiratory problems such as asthma, emphysema and bronchitis, and also those with chronic heart disease, should take extra precautions during air pollution episodes and call their physician immediately if problems develop.

The Lung Association urges strong action to address this public health crisis, including reducing pollution from wood burning, cars, trucks, buses and agricultural sources. Soot pollution is linked to increases in hospitalizations and emergency room visits. Fine particles in smoke and diesel pollution are so small they can bypass the airway defenses and enter directly into the lung and bloodstream and can lead to lung disease and heart attacks.

One fireplace or wood burning stove can produce levels of smoke in a neighborhood that exceed federal air quality standards and affect many neighborhoods. With stagnant air across the Valley, this pollution builds up to create hazardous conditions for everyone.

There are many things that residents can do to improve air quality, including burning less, driving cleaner vehicles, taking transit and supporting sustainable freight policies that reduce pollution. Let's all work together to clean up air pollution so everyone can breathe easier.

*Tamira Smith Lopez, American Lung Association  
Bakersfield*

[Letter to the Fresno Bee, Tuesday, Nov 11, 2014:](#)

### **Stop Clovis fireworks; they pollute the air**

Hello! We are experiencing unhealthy air, yet again, and we are still shooting off chemical-filled fireworks at Clovis High School, among other areas in town. How many asthma attacks do our children and elderly people need to have before something is done about our air quality?

When officials say not to let children play outside, or no physical activities outside because of our filthy air, that is a sign we need to do all we can to make things better. There is a cloud of smoke hanging over our neighborhood. Ridiculous! Do we really need to shoot off fireworks?

It's just one little thing we could stop to help our pollution problem.

*Jo Ann Castello, Clovis*