

A rough week ahead: heat rising, air quality falling and plenty of mosquitoes

By Patty Guerra

Modesto Bee, Tuesday, July 24, 2018

It's hot. And it's going to stay hot.

After a short weekend break, temperatures in the Modesto area are heading up to the triple digits again this week, prompting the National Weather Service to issue a heat advisory.

The heat, combined with the Ferguson fire burning near Yosemite National Park, is also dragging down air quality. And mosquitoes are on the rise, authorities say.

The advisory means that "a prolonged period of hot temperatures is expected and will create a situation in which heat illnesses are possible," the service said in its forecast for Modesto. The advisory is in effect Tuesday through Thursday, when the temperature is expected to reach 100 or 101 degrees. Lows are expected to drop only to about 70.

Officials warn residents to drink plenty of fluids, stay out of the sun and check on at-risk relatives and neighbors. "Anyone overcome by heat should be moved to a cool and shaded location," the service said. And in a heat stroke emergency, call 911.

The heat also is affecting air quality. The San Joaquin Valley Air Pollution Control District issued an Air Quality Alert on July 17 due to smoke impacts from the Ferguson fire. The alert encompasses the foothills and eastern part of Stanislaus, Merced, Madera, Fresno, and Tulare counties.

Increased pollution from the fire can cause health issues including respiratory infections and asthma attacks, the district said. The alert will remain in place until the fire is extinguished.

The heat also is bringing about an increase in the mosquito population.

The San Joaquin County Mosquito and Vector Control District on Monday said the hot summer after a cool spring has caused a "significant" rise in the number of mosquitoes in the area. The district also reported high West Nile virus infection rates in collected mosquitoes.

"The district is taking an aggressive approach to reducing mosquito populations; however, with high infection rates in collected mosquito samples, we are notifying the public to take precautions," manager Ed Lucchesi said in a news release. "Using EPA registered repellents containing DEET, Picaridin, IR3535 or oil of lemon eucalyptus are recommended to prevent mosquito bites and reduce the risk of mosquito-borne disease."

No human cases of West Nile have been reported in Stanislaus, San Joaquin or Merced counties so far this year, according to the state [website](#).

There is some relief in sight as the end of the week rolls around - if you can call expected highs in the upper 90s relief.

Valley is on track to break heat record; energy and air quality alerts issued

By Ashleigh Panoo

Fresno Bee, Tuesday, July 24, 2018

Summer is in full force in the central San Joaquin Valley — and Fresno is on track to break the record of consecutive days over 100 degrees.

Along with the heatwave, a heat advisory, an energy flex alert and an air quality alert have been issued for the region.

The record of 21 days at or over 100 was set in 2005, and as of Monday, the Valley is on its 18th day, according to Carlos Molina, meteorologist at the National Weather Service in Hanford.

He said there is a good chance the record will be broken with temperatures forecast to be in the triple digits through the weekend.

Still, Molina said, this July heatwave isn't all that strange.

"It's a pretty normal part of living in central California," he said. "It's not uncommon for us to get 16, 17, 18 days of 100 degrees.

Fresno summers average about 36 days of triple-digit temperatures, Molina said, and "we haven't gotten 36 yet."

A flex alert has been issued for Tuesday and Wednesday by the California Independent System Operator Corporation. It calls for voluntary electricity conservation from 5 p.m. to 9 p.m. on both days to avoid power outages when the grid is under stress.

ISO recommends setting the thermostat at 78 or higher, turning it off when away, cooling homes with fans, closing drapes, turning off unnecessary lights and appliances, and using major appliances in the morning or late evening.

Pools and cooling centers around Fresno will be open Tuesday free to the public, the city of Fresno announced. Pools at Fresno, McLane, Sunnyside and Edison high schools will be open from noon to 5 p.m. and Hoover High School from noon to 2 p.m. Mosqueda, Frank H. Ball and Mary Ella Brown community centers will also open their pools from 1 p.m. to 5 p.m.

FAX buses will also give free rides to community cooling centers, which will be open from noon to 8 p.m.

An air quality alert has been in effect for foothill and mountain communities and the eastern part of the Valley since July 17 and will remain until the Ferguson Fire in Mariposa County is extinguished, according to the weather service.

Although the San Joaquin Valley Air Pollution Control District is showing only a Level 2 risk, the district warns that air monitors are not picking up the smoke from the Ferguson Fire or the Horse Creek Fire in Sequoia National Park because ash particles are larger than particulate matter particles, which is what the monitors are designed to detect.

"If you can smell smoke and see ash, that is an indication that you should be treating air quality conditions as a RAAN Level 4 or higher," the district said.

Molina said a slight cooling of temperatures toward the end of the week could break the ridge of high pressure and assist with bringing in wind to help with heat and air quality.

A heat advisory is in effect from 1 p.m. Tuesday to 11 p.m. Thursday for the Valley and foothills, including the Ferguson wildfire operation area, the weather service said.

Molina cautioned that even those who don't believe they are sensitive to heat should drink water and stay in the shade.

"Just realize that even if you don't feel the heat," he said, "heat exhaustion can come on suddenly."

Heat equals ozone pollution, but there's a silver lining

By Steven Mayer

Bakersfield Californian, Tuesday, July 24, 2018

Weather and air quality are intimately linked in the southern end of the San Joaquin Valley.

When the weather gets furnace-hot, and high pressure keeps the atmosphere stagnant, air quality can suffer.

So exercise caution.

"This week, it's going to be clear and hot — blistering hot," said Bill Peterson, a meteorologist at the National Weather Service's Hanford station. And those conditions could pump up Bakersfield's levels of the corrosive gas known as ozone, an unhealthy component of smog that forms under the hot, summer sun.

But there is a silver lining, said Samir Sheikh, the district's executive director and air pollution control officer.

"Under very similar conditions in the past — high temperatures, fairly stagnant or very stagnant air, and wildfires in the north — we were seeing very, very high levels of ozone 15 and 20 years ago," he said.

Now, even under like conditions, levels are lower.

How much lower?

Let's compare last week with the same week 20 years ago. Averaging Bakersfield's peak one-hour ozone readings over those seven days — the same week in 1998 — the city experienced an average reading of 101.1 parts per billion.

Last week, Bakersfield averaged 74.3 ppb. Much lower levels of ozone pollution.

How about the same week 15 years ago — in 2003? Bakersfield saw 92.9 ppb of ozone averaged over that week. Again, during the same week in 2018 the city averaged 74.3, significantly lower.

Would the district like to see those numbers go lower still? Of course. But the downward trend is encouraging, Sheikh said.

"We're seeing a very clear reduction in ozone concentrations as a result of emissions reductions," he said. "Cleaner fleets, cleaner equipment."

Comparing a larger span of time, Jan. 21 through July 22, one sees a similar reduction, this time in the number of days Bakersfield exceeded 84 parts per billion. In 2003, the number of days was 44. In 2008, Bakersfield exceeded that number 31 times.

Five years ago, in 2013, the city topped that number just eight times.

And so far this year? Zero.

Peterson at the weather service said a breeze blowing from the south-southwest last week helped keep smoke from the Ferguson fire, a major wildfire burning on the western edge of Yosemite National Park, from heavily impacting Bakersfield.

But that could change this week, he said.

Wildfire smoke can raise the area's level of particulate — or PM — pollution, typically a wintertime problem.

But chemicals emitted from wildfires can also be precursors to ozone, Sheikh said. So the fires may already be affecting the Bakersfield area.

"Last week, we received reports of smoke and ash as far south as Delano," said Jaime Holt, the air district's chief communications officer.

So watch out. The smoke may be coming.

On Monday, the weather service issued an excessive heat warning for the Kern County desert, and a heat advisory for the San Joaquin Valley, the Sierra foothills, and the Kern County mountains, effective Tuesday through Thursday.

Bakersfield has already recorded 32 days that reached 100 degrees or hotter. And more fire-hot days are in store.

Possibly many more.