High wind forecast prompts Red Flag Warning for Fresno and Valley; power cutoff alert

By Jim Guy
Fresno Bee, Monday, Oct. 11, 2021

A low-pressure weather system moving into the central San Joaquin Valley prompted officials with the National Weather Service in Hanford to issue a wind advisory and a Red Flag Warning through Monday morning.

Gusty winds may blow down tree limbs, cause power outages and make travel difficult, the weather service said. Travel may also be impacted, especially for high-profile vehicles. Any fire is also likely to spread more quickly in the turbulent air. Motorists were urged to use extra caution and residents were advised to secure outdoor objects.

The weather service noted that the front is moving in from Northern California and the strongest winds will be in the Kern County mountains and the Kern desert areas, including Grapevine, Tehachipi and Walker passes.

Blowing dust and sand are also likely lowering visibility and increasing particulate matter 10 microns or smaller, (PM10) in the air, creating hazardous breathing conditions, especially for those with breathing and lung conditions. The San Joaquin Valley Air Pollution Control District urged people with heart or lung disease to follow doctors' advice for dealing with episodes of particulate exposure.

To monitor air quality, go to www.airnow.gov.

High winds in the Central Valley prompt power shutoffs, health warnings

The dust in the air could reduce visibility and be hazardous to breathe.

By Nic Garcia
KFSN ABC 30, Monday, Oct. 11, 2021

According to the utility company's website, public safety power shutoffs were in effect in areas near Coalinga in Fresno County and Avenal in Kings County.

Over the weekend, PG&E warned thousands of customers could lose electricity due to the strong winds. The shutoff is meant to reduce the risk of power lines sparking wildfires.

The company said just under 200 customers in Fresno could go dark, and around a dozen customers in both Kings and Merced counties.

The gusts have also prompted health concerns from air officials.

The wind will be pushing a lot of wildfire smoke away from the San Joaquin Valley, but the dust in the air could reduce visibility and be hazardous to breathe.

"It's not healthy at all to be breathing in particulate matter," said Anthony Presto from the San Joaquin Valley Air Pollution Control District.

"We're bound to get quite a bit of particulate matter in the form of blowing dust and that's a real health concern because breathing in and being exposed to particulate matter increases risk of asthma attacks, respiratory infections, emphysema, chronic bronchitis," said Presto.

Falling trees are also a concern, especially for crews battling the Windy Fire.

"With any tree that's been burned by fire, they become a weakened tree and are easily toppled over. That poses a huge threat to anybody working below them," said Avivia Braun, Incident Meteorologist monitoring the Windy Fire.

All eyes will be on the fire and closer to home, on the potentially dangerous air.

You can check to see if you'll be impacted by the PG&E shutoff here.

If you will be impacted, PG&E issued these tips to keep in mind:

- Use a cell phone or hard-wired phone. Cordless phones do not work without electricity.

- Use battery-operated flashlights, not candles, which may pose a fire hazard.
- Unplug or turn off all electric and heat-producing appliances (e.g., air conditioners, washers and dryers, ovens, stoves, irons) to avoid overloading circuits. Overloaded circuits can be a fire hazard once power is restored.
- Unplug televisions and computers that were in use when the power went out.
- Leave a single lamp on to alert you when power returns.
- Keep refrigerator and freezer doors closed, and place extra containers of ice inside to preserve food. A full freezer will remain colder longer.
- Notify your alarm company if you have an alarm system. Equipment can be affected by outages.
- Turn your appliances back on one at a time when conditions return to normal.
- Reset clocks, thermostats and other programmed equipment after power is restored.

Air district issues air quality high-wind advisory

The Bakersfield Californian, Sunday, Oct. 10, 2021

The San Joaquin Valley Air Pollution Control District is alerting residents that strong northwesterly winds expected late Sunday night could cause blowing dust and elevated PM10 concentrations through Tuesday night.

People in affected areas are advised to stay inside with windows and doors closed to avoid exposure to blowing dust.

"Strong winds often cause localized blowing dust in areas where soils are exceptionally dry — creating unhealthy concentrations of particulate matter 10 microns and smaller (PM10). Exposure to particulate pollution can cause serious health problems, aggravate lung disease, trigger asthma attacks and bronchitis, and increase risk of respiratory infections," the air district said in a news release.

Go to airnow.gov to monitor PM10 levels or download the “EPA AirNow” app for android or iPhone. Go to valleyair.org for more information.

Strong winds, high gusts expected in Modesto bring warnings of trees, power, driving, dust

By Deke Farrow
Modesto Bee, Sunday, Oct. 10, 2021

Last week, Modesto got its first measurable rainfall of the season: 0.03 inches, recorded by the Modesto Irrigation District on Friday. Not much, but welcome.

This week will bring winds. Not so welcome.

With gusts as high as 49 mph in Monday’s forecast, the National Weather Services has issued a wind advisory to be in effect from 5 a.m. to 11 p.m. Gusts aside, the northwest wind on Columbus day is expected to range from 23 to 36 mph.

Tuesday also is expected to be windy: 18 to 23 mph, with gusts as high as 32 mph.

The weather service warns that strong winds may cause downed tree limbs and power lines, meaning possible localized power outages.

Temporary structures could be damaged or destroyed, and driving conditions may be difficult, especially for high-profile vehicles.

The San Joaquin Valley Air Pollution Control District also warns the winds have the potential to “cause blowing dust and elevated PM10 concentrations through Tuesday evening.” The district recommends that residents in affected areas remain indoors with window and doors closed, avoiding exposure to blowing dust.

This week also will bring a couple of days that reach only the upper 60s — something Modesto’s not had since late April.

Tuesday's high is predicted to be hear 66, and Wednesday's near 68. The rest of the week will be warmer, with highs near 76 Thursday, 81 Friday and 84 Saturday.

GPD looking to add green vehicles to fleet

- by Sabra Stafford
- West Side Index and Gustine Press Standard, Thursday, Oct. 7, 2021
- The Gustine Police Department is looking to add a bit more green in their routine with the addition of two new hybrid patrol vehicles, which could be partially funded through grants from the San Joaquin Valley Air Pollution Control District.

  The Gustine Police Department has applied for two grants each in the amount of $20,000 that if approved, would be used to purchase two 2022 Ford Police Interceptor Hybrid AWD vehicles.

  The police department has seven marked patrol vehicles in the fleet that are in need of updates, said Gustine Police Chief Ruben Chavez.

  "The fleet is extremely old and in need of repair," Chavez said. "Every time we have to take one in for service it is costing anywhere from $500 to a couple thousand dollars."

  The seven vehicles in the fleet are: a 2002 Crown Victoria; two 2005 Crown Victorias; three 2015 Ford Taurus'; and a 2017 Dodge Charger. Chavez said some of the vehicles have had issues with the transmissions, the differentials, the rack and pinion and steering components.

  The San Joaquin Valley Air Pollution Control District provides grants of up to $20,000 for the purchase of new alternative fueled vehicles that serve as replacement for gas and diesel vehicles. The Public Benefit Grants Program was developed and designed to meet the needs and challenges faced by Valley public institutions by providing funds towards a wide variety of clean-air, public-benefit projects which will provide a direct benefit to Valley residents.

  The grant period is through the calendar year and allows for an agency to receive five grants per year. The Gustine Police Department has used three grants previously this year to purchase three Toyota Prius vehicles, two of which are used by administration and the third for various uses.

  If the police department is approved for the grants, it would cover $20,000 towards the purchase of the 2022 Ford vehicles, with the city having to pay the remaining costs. The department was quoted a price of $36,783.01 cent per vehicle. In addition the cost of outfitting the vehicles for patrol would run around $17,000 each, Chavez said.

  The police department was able to purchase four T3 Motion Patrollers, a version of stand-up electric vehicles, in 2019 with grant funds from the air district.

  Chavez said the department has applied for the grants and is awaiting to hear if approved.

The number of air monitors in the Bay Area has exploded. Where are they?

By Yoohyun Jung and Danielle Echeverria
San Francisco Chronicle, Monday, Oct. 11, 2021

Last summer, as wildfires raged across the state and smoke cloaked the Bay Area, East Palo Alto resident Mark Dinan did what many Bay Area residents were doing — he pulled up a map made by the company PurpleAir showing real-time air quality measurements. The numbers came from a network of low-cost sensors sold by the company that people install at their homes.

As the region's air quality and the effects of wildfire smoke continued to rise as a pressing issue in the Bay Area, the number of private, low-cost air quality sensors have skyrocketed in the past year—PurpleAir sensors are among the most popular brands of monitors.

These sensors, which users can install in their homes to collect and access real-time data, offer a hyperlocal perspective compared to government-run air monitoring stations, which tend to show data for the broader region.

But Dinan, who works as a tech recruiter, noticed something strange last August: East Palo Alto had no sensors — a stark contrast from across the freeway, where the traditionally wealthier Palo Alto had dozens. He posted a screenshot showing the discrepancy in the PurpleAir Users Facebook group.

“It was like, what’s going on here?” he said. “It was like somebody redlined East Palo Alto.”

Such occurrences aren't limited to Dinan’s small part of the Bay Area. The relatively “low-cost” sensors, which cost about $200 per device, appear to be concentrated in the more affluent areas of the region, according to a Chronicle analysis of the PurpleAir sensor network.

“Those discrepancies are quite stark,” said Michael Flagg, principal air quality specialist at the Bay Area Air Quality Management District. “That speaks to the kind of inequity of the access to information.”

Data provided by these at-home monitoring networks help inform a much deeper and localized understanding of air quality in an area, and what to do when the air quality is bad or hazardous, he said. In lower-income areas where there are fewer sensors or even none, the data is limited or non-existent, and residents there are left without access to the same rich information that could affect their health and well-being.

Counties with higher median household income tend to have a higher concentration of PurpleAir sensors per person. Of the nine counties in the Bay Area, Marin County had the highest concentration, with about 31 sensors per 10,000 people, compared with about 8 in San Francisco and 4 in Solano. Marin County’s median household income was about $111,000 in 2019 compared with Solano’s $87,000, according to the latest data from the U.S. census.

The PurpleAir sensor network has exploded in size in the past year, data shows, attracting thousands of new users as record-breaking fires spread smoke and ashes all over the region, sounding alarm over toxic air. The number of unique PurpleAir sensors in the Bay Area’s nine counties multiplied rapidly, especially after August 2020.

Adrian Dybwad, the founder of PurpleAir, said that the skyrocketing demand for sensors surprised him. The company had to “scramble” to keep up with demand, even opening up a temporary second location for production, he said.

“Last year particularly, it was quite shocking,” he said. Now, the company makes about 1,000 sensors a week, he added — from a new, larger location.

PurpleAir and other low-cost sensors offer what government-run air quality monitoring stations don’t, which is real-time data at the location of the user’s choosing. That’s because the technology to measure the pollution is different; regulatory monitors use a method that’s much more precise, but takes longer and is far more expensive.

The main difference is in the objective, Flagg of the Bay Area air district said. The regulatory air monitoring networks aim to provide a broader understanding with quality-controlled data, while PurpleAir and other low-cost sensors provide a more on-the-ground picture at a personal level.

That personal approach comes with issues. PurpleAir data has known limitations, partly because of its technology, which lowers the accuracy of the data and in some cases, overmeasures pollution by up to 40%.

But even with these limitations, PurpleAir’s increasing popularity, and the rich data produced by the sensors, have not gone unnoticed by government agencies, including the EPA, academic researchers and others looking to further understand and improve air quality. The EPA’s Fire and Smoke Map now integrates low cost sensor data, as well as regulatory monitoring stations.

“Sensor data is becoming another tool for us to understand air quality in the Bay Area,” Flagg said. “It gives us insights into how things are changing at a scale that previously wasn't available,” he added.

The low cost sensor network can be particularly useful in wildfire communications, he said. During the Woodward Fire in Point Reyes in 2020, a layer of very concentrated particulate matter was detected in a specific location, which was nowhere near a regulatory monitor but had low cost sensors nearby.

“This added layer of dense information allowed us to assess the impacts of that particular fire for a specific period of time in a specific geographic location, which is really helpful when we're trying to communicate to the public about whether or not it's safe to be outdoors,” Flagg said.

The abundance of sensors concentrated in an area is what makes the low cost sensor network so powerful, he said. But the density of sensors varies even within Bay Area counties, the Chronicle’s analysis showed.

Bay Area ZIP codes with higher median household income, according to data from the U.S. census , tended to have a higher concentration of unique PurpleAir sensors as of August 2021. In the 37 ZIP Codes with no PurpleAir monitors which had income data, the median household income averaged $81,000, but in the 41 ZIP Codes with more than 24 sensors per 10,000 people, that number was about $147,000.

The ZIP code with the highest concentration of these sensors per person in August 2021 was 94946 in the Nicasio, Lagunitas-Forest Knolls and Jewell areas of Marin County, where the median household income was about $141,000 in 2019.

“Two hundred-fifty dollars is maybe cheap to somebody in Piedmont, but it might be a considerable expense for someone else,” Flagg of the Bay Area air district said.

Efforts to increase access

As the network of PurpleAir and other low cost air quality sensors and their influence continue to grow, so have the efforts to increase access to the devices and their data.

Dybwad, the PurpleAir founder, said that when a community that needs more sensors comes to their attention, they’ll sometimes “give sensors away” or at “a really deep discount.”

A number of community and environmental groups, including Brightline Defense, Sustainable Silicon Valley and Acterra, have taken matters into their own hands, buying and placing sensors in lower income communities. Government agencies have done similar projects.

Paul English, a senior advisor for the Environmental Health Investigations Branch at the California Department of Public Health, worked on a project in Imperial County, which has some of the worst air quality in California, to implement a system of low-cost sensors. He collaborated with community groups to install and calibrate them with the regulatory information to get as accurate of a local picture as possible.

To English, training and leaning on community groups is the key to getting low-cost sensors into more lower income neighborhoods. The groups can both secure the funding to purchase them and make sure the sensors are working properly and in sync with regulatory monitors, he explained.

“We think of this really as a supplement to the regulatory data,” he said.

Assembly Bill 617, which was passed in 2017, could help with that funding – it requires local air districts and the state Air Resources Board to reduce air pollution in disadvantaged communities. Monitoring the data locally through low-cost sensors may help with that objective, English said.

By getting more sensors installed outdoors in some of the more underserved communities, AB 617 has made a big impact on their ability to monitor air quality, said Josh Apte, an assistant professor of civil and environmental engineering at UC Berkeley.

“AB 617 only touches on a subset of the disadvantaged communities in California, but nevertheless I think it’s a really welcomed development,” he said.

Back in East Palo Alto, Dinan contacted PurpleAir himself after posting about the problem on Facebook. Working with the company, community and environmental groups, he was able to get 11 PurpleAir sensors set up in the city in less than two weeks, for less than $2,500.

“It’s been a very good source of information for us,” he said.

Gavin Newsom signs law banning sale of new gas-powered leaf blowers, lawn mowers by 2024

By Andrew Sheeler
Fresno Bee, Sunday, Oct. 10, 2021

California Gov. Gavin Newsom signed a bill into law on Saturday that will phase out the sale of gas-powered leaf blowers, lawn mowers and other small off-road engines by as soon as 2024.

Assembly Bill 1346 directs the California Air Resources Board to phase out the sale of small off-road engines by 2024 or as soon as feasible, whichever comes later. The new law also directs the board to identify and make available, where feasible, funding for commercial rebates to go toward the purchase of electric equipment.

Newsom's signature comes a year after he signed an executive order phasing out the sale of gas-powered vehicles by 2035.

Under the new law, retailers will be limited to selling zero-emission equipment, such as electric- or battery-powered gear as part of an effort to cut down on emissions.

An hour's use of a gas-powered leaf blower produces the same amount of emissions as driving from Los Angeles to Denver, according to the Air Resources Board.

The bill's author, Assemblyman Marc Berman, D-Menlo Park, and supporters — including the American Lung Association in California, the Sierra Club and the Union of Concerned Scientists — say that it will result in the use of cleaner and greener equipment.

Berman's bill comes as part of a state effort to cut down on air pollution. One hour of gas-powered leaf blower use is equivalent in emissions to a vehicle driving 1,100 miles from Los Angeles to Denver, according to the Air Resources Board.

Critics of the bill-turned-law — including Senate GOP Leader Scott Wilk, R-Santa Clarita, and the Outdoor Power Equipment Institute — said that it will impose a hardship on landscapers and gardeners, as well as creating a market shortfall of products with high consumer demand.

California law to eventually ban gas-powered lawn equipment

By Adam Beam, Associated Press
Fresno Bee and GV Wire, Sunday, Oct. 10, 2021

California will soon ban the sale of new gas-powered leaf blowers and lawn mowers, a move aimed at curbing emissions from a category of small engines on pace to produce more pollution each year than passenger vehicles.

Gov. Gavin Newsom signed a new law on Saturday that orders state regulators to ban the sale of new gas-powered equipment using small off-road engines, a broad category that includes generators, lawn equipment and pressure washers.

The California Air Resources Board has already started working on a rule to do this, a lengthy process scheduled to conclude early next year. But the law Newsom signed on Saturday removes any doubt, ordering the agency to apply the new rule by Jan. 1, 2024, or as soon as regulators determine is "feasible," whichever date is later.

"Gov. Newsom signing (this law) really sets a strong course to not only his commitment to transitioning to zero emissions but also to cleaner air and healthier lungs," said Will Barrett, director of clean air advocacy for the American Lung Association in California.

The law, authored by Democratic Assemblyman Marc Berman, is part of an aggressive strategy to reduce pollution in the nation's most populous state. California is the only state with the authority to regulate air quality this way, part of an exception carved out in federal law in the 1970s. While other states can't enact their own regulations, they can choose to follow California's lead.

Last year, California regulators approved a first-of-its-kind rule to force automakers to sell more electric work trucks and delivery vans. Also last year, Newsom ordered regulators to ban the sale of all new gas-

powered cars and trucks in California by 2035 — a date that has since been embraced by some of the world's largest automakers.

California has more than 16.7 million of these small engines in the state, about 3 million more than the number of passenger cars on the road. California was the first government in the world to adopt emission standards for these small engines in 1990. But since then, emissions in cars have vastly improved compared with smaller engines.

Now, state officials say running a gas-powered leaf blower for one hour emits the same amount of pollution as driving a 2017 Toyota Camry from Los Angeles to Denver, a distance of about 1,100 miles (1,770 kilometers).

The law Newsom signed also orders regulators to offer rebates for people to change out their equipment, a move aimed at landscaping businesses that use these machines more often. The state budget, approved earlier this year, includes $30 million to pay for this effort.

This Week in Fresnoland: Dreaming about better air quality through transportation $$$

By Monica Vaughan
Fresno Bee, Sunday, Oct. 10, 2021

Good morning.

This week in Fresnoland, Cassandra Garibay reported on the visit by members of the California Assembly Housing Working Group assessing affordable housing sites and homeless shelters in Fresno.

Earlier in the week, as residents of Fresno and other central San Joaquin Valley communities struggled to breathe air that was clogged with smoke from various fires, Monica Vaughan wrote two critical stories. The first explores whether outside events should be canceled on bad air days while the second is a guide on how to determine if the air quality in your neighborhood is safe enough for outside activities.

It's Monica Vaughan, water and development reporter for Fresnoland, here.

Imagine taking your kids on a trolley to visit the neighborhood park. Now, picture an electric transit system that's fast and cheap and can take you to work right from your doorstep. What if Fresno could do all that, and reduce the local rate of childhood asthma?

These are some of Kevin Hamilton's visions for Fresno's future. A co-director and co-founder of Central California Asthma Collaborative, he has worked for decades to reduce the burden of respiratory health disease and environmental pollution on underserved communities in the San Joaquin Valley.

He also serves on a committee for Measure C, the half-cent sales tax for transportation funds in Fresno County that may be showing up again on our ballots next year. His role is to advocate for public health in the decision making of how the measure is shaped.

"My goal is to see that health is considered in all the areas that the new Measure C is designed to put funding into," Hamilton said. "The biggest problem I see is the way the leadership team is basically old-school transportation folks. They think in terms of piles of concrete and asphalt. And it's really difficult to move them off of that conversation."

Measure C funds should not pay for "more highway lanes," Hamilton said.

He said the costs to operate and maintain roads to new developments should be paid by developers, and any new highway lanes should be paid by those profiting from the truck traffic: Companies that run warehouses and distribution centers in south Fresno, like Amazon.

"You're the one that needs this highway. You need it more than anybody and you're making more money off of it than anybody else is," he said. "That price shouldn't be dumped on the truck driver or the people. It should be dumped off on the Jeff Bezoses of the world. How do you think he became a bazzilionaire?"

That would free up money for innovative projects that could improve residents' health, "to decrease the stress in their lives and improve their quality of life." Fresno residents should see the benefits of transportation projects that they fund with their taxes, he said.

“The transit system needs to evolve to get people to work. People need to get to work. They don’t need to walk 10 blocks from their house out to Blackstone Avenue or any other main street to go to work,” Hamilton said.

Instead, other cities and districts have large SUVs or cars that travel through communities from major transit lines deep into neighborhoods.

“Those vehicles need to be electric and they need to reach where they can get you almost to your driveway or certainly within a couple of blocks of it,” he said. “It needs to get you to places where workplaces are, not to (just) shopping centers. … Focus on getting kids to college, to community college campuses and to schools.”

He envisions more bus stops with solar panels on the roofs that can power fans to keep passengers cool while they wait. And, Fresno should copy electric buses seen in other metro areas, with charging plates under the street so buses recharge at every stop.

“Every day, the majority of people are going to work. So where are those places? Hospitals, the airport area, and the other industrial areas… a lot of people work there. We don’t have mass transit that goes there, from the places where people live. And that’s what’s got to happen and then there should be an incentive for people to ride it.”

While Hamilton has strong opinions about how Measure C could help shape Fresno’s future, whether his input on the committee will be influential is “yet to be seen.”

Sacramento and northern San Joaquin valleys face a fire weather watch early next week

By Rosalio Ahumada
Sacramento Bee, Friday, Oct. 8, 2021

The National Weather Service issued a fire weather watch for early next week as gusty winds are expected to blow through most of the Sacramento and northern San Joaquin valleys amid potentially dangerous wildfire conditions.

The target area for the fire weather watch, which was issued Thursday afternoon, includes Sacramento, Yolo, western Placer, Sutter and Yuba counties, along with Stanislaus, San Joaquin, Butte, Colusa, Glenn and Solano counties, according to the Weather Service in Sacramento.

The fire weather watch will remain in effect from Monday afternoon through Tuesday evening, and outdoor burning was not recommended. The Weather Service said gusty wind combined with dry conditions and a minimum humidity of 10% to 20%, and overnight recoveries of 25% to 50%, could mean any wildfires that develop likely would spread rapidly.

Forecasters were monitoring weather conditions for potentially strong wind early next week. The Weather Service said maximum wind gusts could reach 25 mph to 35 mph, and in some areas up to 45 mph, in the western portions of the Sacramento Valley into the northern part of the San Joaquin Valley.

A winter storm that moved into the region Thursday was expected to produce little to no rain in the Sacramento Valley. Sacramento can expect a 30% chance of rain Thursday and Friday, according to the Weather Service.

But forecasters expect the storm to drop some snow in the higher elevations of Northern California, prompting Caltrans crews to temporarily close three Sierra Nevada mountain passes for at least two days starting Thursday afternoon.

Caltrans officials said the closures of Ebbetts Pass on Highway 4, Sonora Pass on Highway 108 and Monitor Pass on Highway 89 were necessary to ensure motorist safety in advance of the storm, and they will consider reopening the mountain passes after reevaluating weather and road conditions on Saturday.

KNP Complex Fire burns down, continues to threaten radio station transmitters

By Breanna Hardy
The Business Journal, Friday, Oct. 8, 2021

The KNP Complex Fire in Sequoia National Forest has already burned tens of thousands of acres, but this past week has been especially devastating for local radio stations whose transmission equipment has been damaged by the fire, resulting in a loss of signal power.

B95, Soft Rock 98.9, New Rock 104.1, Radio Bilingue on 91.5 and KARM on 89.7 have all been threatened by the wildfire.

John Ostlund, owner of One Putt Broadcasting with several Fresno radio stations, described the fire on Eshom Point, a mountain which hosts several radio stations' signals. The transmitter for one of his stations, New Rock 104.1, is at Eshom Point, and barely missed the flames this past week. He has been monitoring the fire's progress multiple times a day since it was five miles away from the transmitter towers about 10 days ago.

While it didn't take a direct hit, he said they're not out of the woods yet.

"When the fire started, we knew that it potentially could reach Eshom Point, so we watched it when it was five miles away, then three miles away and then a half-mile away," said Ostlund.

"Our transmitter site was just 50 feet from the B95 site that went up in smoke," he said Friday. "We thought, 'There's no way it's going to spread that far.'"

He said that B95 and Soft Rock 98.9 have both been burned to the ground and are operating off of standby transmitters at a weaker signal on a nearby hilltop.

Rychard Withers, general manager at KFCF 88.1 FM in Fresno and member of the Society of Broadcast Engineers, said that it's been pretty quiet in the radio community as people scramble to figure out their next steps.

"With the FM, height is your favorite friend," Withers said.

Ostlund described the high towers being near the trees where fires rage.

"That fire is pretty devastating," Ostlund said.

The California Department of Forestry and Fire Protection ordered PG&E to shut off power near the area

"That was the first big warning that the fire was within striking distance," Ostlund said.

Everyone scrambled to make sure standby generators were operating and the fuel tanks were at capacity. The generators conserve the use of fuel, but the signal takes a hit because the radio can't broadcast as far without full power.

When replacing transmitters, it requires engineers, consultants and contractors — but even then it could take two to three months to get the stations off of the standby transmitters, Ostlund said.

"This is a problem we're going to be dealing with for many months," Ostlund said. "It's devastating to those of us in this industry."

A huge factor in the cost and speed of the recovery depends on insurance. The deductible on Eshom Point is $50,000, which will be expensive for everybody involved, Ostlund said.

"The insurance industry, ever since we've been having multiple wildfires in the mountains… the insurance industry has tried to protect itself," he said.

He's hopeful that the insurance will cover anything beyond the deductible but insurance companies have a way of defining what is coverable, he said.

While Ostlund's transmitter towers are safe for the time being, he said they could be off air at any moment.

For its 350,000 weekly listeners that tune into One Putt's five stations, they depend on radio coverage for sports, music and companionship, Ostlund said.

With weaker broadcasting strength on generators, listenership will be affected, and in turn the ratings book — which comes out in the fall — could potentially affect future advertising revenue.

Withers suspects that the three iHeart Radio stations, KSOF, B95 and KFSO, will need to rebuild the facility that houses several pieces of broadcasting equipment. But with the snow in the winter, it could be months before that happens.

"We are a part of the everyday lifestyle of hundreds of thousands of people," Ostlund said.

KNP Complex Fire may have killed hundreds of giant sequoias in Earth's largest grove, birthplace of modern fire management

By Joshua Yeager
Visalia Times-Delta, Friday, Oct. 8, 2021

Hundreds of giant sequoias may have perished after the raging KNP Complex Fire raced through Redwood Mountain Grove, considered to be the Earth's largest, as well as the birthplace of modern prescribed burning science in the west.

High-severity fire burned through the grove early Monday, creating its own weather — a massive fire cloud that generated 50 mph gusts and blew singed sequoia needles to nearby Hume Lake in Sequoia National Forest.

Scientists prepping the grove ahead of the KNP's arrival had tagged 400 sequoias as "high-risk" because of the abundance of dead trees in the area and the steep, uphill terrain — conditions that have resulted in blazes capable of mortally wounding the famed giants, experts said.

Aerial crews had planned to drop fire-resistant gel on the sequoias' treetops, where they are most vulnerable to flames, but the operation was scrapped after conditions became unsafe. Heat mapping performed in the days since shows the fire burned hot enough to produce the kinds of crown fires that have already killed thousands of sequoia across the southern Sierra Nevada.

The fire's run through Redwood Mountain Grove comes weeks after the KNP Complex initially sparked, just as firefighters had begun to achieve significant containment around the 130-square-mile blaze in Sequoia and Kings Canyon national parks.

"There's so much uncertainty I'm trying not to think about it," said Christy Brigham, the parks' chief scientist. "When I first saw the smoke plume, I cried heavily."

Despite some worrying signs, Brigham maintains there are reasons to be hopeful about the grove's prospects: Prescribed burning had occurred at the edge of the stand just three years ago, and photos taken from Generals Highway show mature sequoias with healthy "broccoli tops."

The Redwood Mountain Grove's fate won't be known for sure until firefighters can access the land, hopefully sometime in the next week, Brigham said. What she does know, based on heat mapping, is that more than 80% of the massive 2,600-acre stand burned. But just because fire burned through an area doesn't mean every tree there has been killed, she added.

"We're really worried," Brigham said. "There's reason to be optimistic because of the prescribed fire we have done near the top of the grove. There's also reason to be worried because of the heavy fueling all around it and the conditions under which it burned."

The KNP Complex is 85,000 acres and 11% contained, according to fire officials. Containment dropped by half after the wildfire torched the mountain grove early Monday.

Birthplace of modern prescribed fire

The Redwood Mountain Grove is considered the birthplace of modern fire ecology by scientists who study the role of fire on the natural landscape. Researchers used the grove as a laboratory to demonstrate the beneficial effects of controlled burning, a then-novel idea, to an audience of skeptical foresters in the 60s and 70s.

Research conducted at Redwood Mountain Grove directly resulted in the National Park Service completely overhauling its natural preservation policies to allow fire back into the landscape, ending a century of fire exclusion that resulted in dense and overgrown forests.

"Redwood Mountain in the western United States really became the cradle of this change and an openness to the use of fire as a natural part of the ecosystem and as a management tool," Brigham said. "For the parks service, that's where this new era of fire ecology was born."

How did the Redwood Mountain Grove, an early poster child for prescribed burning, fall victim to the very kind of unnatural, high-intensity fire that researchers had warned about decades ago?

The answer is complicated, Brigham says.

"It's not that we forgot, and it's not that there was evil intention," she said. "But all the factors have to be right to continue to have a successful prescribed fire program like we have had in Giant Forest and Grant Grove."

Prescribed fire in sequoia groves requires decades of commitment. You can't burn a grove and walk away. After an initial burn, crews must return every 15 years to maintain the groves and keep them healthy — just like a home, Brigham says.

"If your funding and staffing or public support wavers, then you miss a few. You start to accumulate fuel, and when you accumulate that fuel it becomes unsafe to do the burn," the scientist said. " Add on top of that climate change, and the tree mortality from climate change, and the second year of drought ... then your window where it's safe to do a prescribed burn goes away."

Despite those challenges, Sequoia and Kings Canyon have run one of the most successful prescribed burning programs in the country. Six burns have occurred in the Redwood Mountain Grove since 2000, continuing the legacy of her predecessors.

In fact, Brigham says the park had nearly completed a prescription plan for the area of the grove that appeared to burn the hottest when the KNP sparked. Employees had already completed archaeological surveys, she said.

"And then this happened, and it's very hard. It's so heartbreaking," she said. "We just lost the thread in lower Redwood Mountain."

Adopting Native American practices

Without those prescribed fires, the KNP's impact on the historic grove would likely be much worse. As it stands, Brigham expects many parts of the grove will actually benefit from the KNP Complex.

Sequoia are among the most fire-adapted species on the planet and require low- and moderate-intensity heat to burst their pinecones and clear the forest of competitors. Research performed in Redwood Mountain showed that lightning-caused wildfires touched sequoia groves every 12 to 16 years, on average.

But the giants, with their 2-foot-thick bark and crowns that tower hundreds of feet above the ground, are no match for the mega-blazes that have recently scorched the West. These fires are unlike any the Sierra has experienced in millennia; experts say they are fueled by a century of poor forest management and worsened by climate change.

Indigenous tribes that called the Sierra Nevada home long before white settlers arrived understood fire's role in the landscape and practiced cultural burning, keeping the forest healthy. Some of the earliest burns that NPS prescribed were done in collaboration with local tribes, such as the Wukchumni and Tule River.

Tribal representatives said it has taken science decades to catch up with the traditional knowledge that their ancestors had understood and put into practice for centuries.

"It's something that we carry as an honor," said Lauren McDarment, a cultural specialist with the Tule River Indian Tribe, located in the southern Sierra. "This is the landscape that we have lived with for centuries, and it needs fire to go through ... to cleanse the areas and let new life regrow."

"Not just the sequoias but the animals and the fish; they get more nutrients," he added. "Everything is healthier."

Despite the damage to the sequoia groves, which are sacred to McDarment and his people, he remains optimistic about the future. In the footprint of the 2017 Pier Fire, for example, McDarment recently saw a carpet of green needles: Hundreds of sequoia saplings.

Some of those tiny trees could be transplanted to other burned groves, where sequoia regeneration isn't happening, said Garrett Dickman, a wildfire botanist with Yosemite National Park.

He points out, though, that a baby sequoia is a far cry from the 1,000-year-old monarchs that tower above the forest canopy and inspire awe in visitors worldwide.

"On balance, we'll see more beneficial effects than negative ones but when the loss is a 1,000-year-old or 2,000-year-old tree it's hard to take," Brigham said.

'It won't put the fires out, but it helps': Cleaner skies, rain headed for Tulare County, Sierra

By Joshua Yeager
Visalia Times-Delta, Thursday, October 7, 2021

A pair of storm systems headed for the San Joaquin Valley will wash away the harmful smoke and deliver some much-needed rain to the Visalia area and Sierra Nevada, which remains under siege by a pair of massive wildfires.

While the cooler weather and precipitation won't extinguish the fires, crews battling the KNP Complex and Windy Fire welcome the wetter conditions.

"The rain is definitely going to help, but it won't put the fire out by any means," said Nate Bogenschutz, KNP fire information officer. "Firefighters are going to take advantage of the precipitation to strengthen containment lines."

The first of two winter storm systems is forecasted to arrive as early as Thursday evening, said Jim Bagnall, a meteorologist with the National Weather Service Hanford office.

Valley residents are already feeling its effects with the arrival of cleaner skies and a respite from the suffocating wildfire smoke that has canceled football games and kept families indoors for much of the past week.

An air quality alert remains in effect across the Valley until Thursday afternoon.

"This system is going to continue to scour out the smoke on Thursday, and it's going to bring rain chances overnight into Friday," he said.

Visalia and Tulare have a 30% chance of seeing light showers Thursday night and between a 50% and 60% chance of rain Friday.

Don't go dashing for your umbrellas yet, though. Rain totals are expected to be "pretty light," Bagnall said — less than a tenth of an inch in the Visalia area.

The mountains will fare somewhat better, he said. Grant Grove in Sequoia National Park — which now sits on the border of the still-growing KNP Complex — could see up to a quarter-inch of rain.

In the high country, snow will touch the peaks of Mount Whitney and other ridges above 8,000 feet of elevation.

"The big impact is bringing cleaner air and seeing some of that smoke pushed out," he said, adding that temperatures will also cool rapidly. Friday's high in Visalia is expected to reach just 66 degrees. "This is our first significant taste of fall weather here."

A second storm system forecasted for early next week will keep the cooling trend going, Bagnall said. That storm likely won't bring any rain to the Valley floor but should sprinkle the mountains.

"It doesn't look like a big rain-maker," he said. "Models show around a quarter-inch is possible up there in the mountains where the fire is burning."

After that, models become less precise, Bagnall said. Current models show favorable wind conditions for keeping smoke from pooling back into the Valley, but that could change depending on the fire behavior and a host of other factors over the next week.

"Forecasting what the smoke is going to be doing at that time is difficult, but there's nothing indicating that the smoke will fill back into the Valley," he said. "If we keep up these westerly flows from offshore, that will push the smoke east, away from the Valley."

Following the storm systems, Bagnall said temperatures will warm slightly but that it should continue to feel like fall. That means it may be time to bust out the cardigans, even if the umbrellas aren't necessary — yet.

Farmers preparing for possibility of rain Friday

YourCentralValley.com, Thursday, Oct 7, 2021

FRESNO, Calif. (KSEE) – With the drought and the poor air quality the Central Valley has been experiencing, the possibility of rain on Friday is a welcoming sign.

The skies were less hazy Thursday compared to the beginning of the week. Ana Stone with the San Joaquin Valley Air Pollution Control District said some of the smoke was dispersed and the rain could also help.

But with the KNP Complex and Windy fires still burning, smoke on the Valley floor could still be expected. “If those fires still continue, we might see some smoke next week as well,” Stone said.

The smoke also affects crops on the ground.

“That smoke screen we saw actually did delay some of our crops drying times simply because there was no sun shining through for almost a week’s time,” said Ryan Jacobsen, the CEO of the Fresno County Farm Bureau.

Better air quality benefits residents throughout the Valley, but especially farmworkers in the fields, who spend hours working outside.

“(The smoke) has been very detrimental to the air quality to both our agricultural crops and most importantly to our agricultural employees,” Jacobsen said.

As farmers expect rain, they’re preparing.

“A lot of our farmers are just hurrying as much as possible where possible to get the crops out of the field that are ready to go out. These types of storms, it’s really dependent upon what clouds you’re under,” Jacobsen said.

Is it safe to exercise outside now? How to check hourly air quality in the Fresno area

By Monica Vaughan
Fresno Bee, Thursday, Oct. 7, 2021

Air pollution levels in your neighborhood can vary several times in a day. What’s safe to do in the morning might not be safe in the afternoon, due to changes of weather and emission sources.

You can check hourly air quality estimates in your neighborhood, from Stockton to Bakersfield, and read clear directions on what activity is safe right now using the Real-time Air Advisory Network and Real-time Outdoor Activity Risk.

The tool is available at the San Joaquin Valley Air Pollution Control District’s website at valleyair.org/myraan, or through the ValleyAir app available for iPhone or Android.

You can also sign up to receive notifications of poor air quality via email, text or app.

As wildfire smoke blankets the San Joaquin Valley this fall, air quality can shift from good to very unhealthy within hours, depending on your location. Valley-wide air quality forecasts simply might not be accurate for your neighborhood.

The district's Real-time Air Advisory Network updates hourly.

Air quality monitors aren't located in every community and the closest monitor may be dozens of miles away. The localized real-time information is developed using GIS and common weather patterns, according to Valley Air. It's meant to guide your decision about whether it is safe to go on a jog or let your kids play outside.

You can also look at SJVAir.com for more neighborhood-level information from additional air quality monitors. That map pulls data from the official air quality monitors, as well as a network of low-cost air quality monitors placed in disadvantaged communities.

Sometimes, particles from wildfire smoke or ash are too large to be measured by monitors, which is why Valley Air staff say if you can see or smell smoke, you should remain indoors.

EXERCISING OUTDOORS IN POOR AIR QUALITY INCREASES YOUR RISK

Valley Air developed the Real-time Outdoor Activity Risk Guidelines 10 years ago, in part, in response to scientific findings that exercise magnifies exposure to ozone and PM 2.5.

That's because the amount of air you inhale increases when exercising, as you breathe faster and more deeply, and pollution with fine particulate matter is more likely to enter deep tissue in the lungs and bloodstream, according to Valley Air.

"A 2003 study found that during moderate exercise, 80% of inhaled ultrafine particles were deposited in the lungs, compared with 60% lung retention while at rest," according to Real-time Outdoor Activity Risk. "However, as shown below in Figure 1, because the volume of air exchanged per minute increases substantially during exercise, overall UFP deposition increased by 450%."

Heart and lung disease can be worsened by exposure to fine particulate matter like PM 2.5, which has been documented by increased emergency room visits during bad air events.

HOW TO USE THE AIR QUALITY ACTIVITY RISK CHART

The Real-time Outdoor Activity Risk site shows charts of ozone and PM 2.5 levels in your area, along with a guideline for health-protective activities. New data points are updated about 18 minutes after each hour, according to a guide to the system.

If you sign up to receive air quality alerts, you will be notified of the estimated air quality level in your location, whenever the air quality reaches unsafe levels or improves.

Here is what the levels mean:

Level 1: Outdoor activity OK for all

Level 2: Sensitive individuals should consider reducing prolonged and/or vigorous outdoor activities.

Level 3: Sensitive individuals should exercise indoors or avoid vigorous activities.

Level 4: Sensitive individuals should exercise indoors. Everyone should avoid prolonged or vigorous outdoor activities.

Level 5: Everyone should avoid outdoor activity.

California Clean Air Day puts focus on air pollution in Central Valley cities

by Kirsten Mitchell
YourCentralValley.com, Wednesday, Oct. 6, 2021

FRESNO, Calif. (KGPE) – Californians were urged to ride their bike, take the bus, and limit activities that create air pollution as part of the state's annual Clean Air Day.

Blue skies over Fresno were a refreshing sight on Wednesday after weeks of anything but clean air.

“We are also seeing a lot of patients who have never had problems before,” explained allergist Dr. Malik Baz.

Dr. Baz says air pollution triggers asthma and other respiratory issues.

According to data from the Population Reference Bureau, Tulare and Kings County have the highest percentage of children diagnosed with asthma.

Tulare at 32.7% and Kings at 28.4 percent– much higher than the state’s 14.3%.

“Proper diagnosis is very important and once the proper diagnosis is made make sure you get the appropriate medical help, whether it be from a family doctor or allergist,” said Dr. Baz.

Those at risk include the young, the old, and the vulnerable.

Research by the environmental protection agency shows communities of color are more exposed to particulate matter based on where they live or work. It’s not all doom and gloom.

“The overall outlook for the San Joaquin Valley is very positive,” said Heather Heinks with the Valley Air District.

While more needs to be done, Dr. Baz and Heinks agree progress has been made to reduce air pollution in the Valley, on the local, state, and federal levels.

“We are 30 years into policy, decisions, and funding that has helped billions of dollars to come into the valley to invest in cleaner technology to help businesses and residents reduce their emissions output,” Heinks explained.

Until then, you can protect yourself by staying indoors in a filtered air environment, change the filters often, and wear an N95 mask.