

## **Valley smog could rise as climate warms Greenhouse gases nurture ozone, new report warns.**

By Mark Grossi

The Fresno Bee Tuesday, Oct. 30, 2007

As global warming drives temperatures higher, air pollution problems could get worse in the smoggy San Joaquin Valley, an advocacy group warns in a report scheduled for release today.

The report, titled "Hot and Smoggy," builds on established science that suggests global warming will increase the creation of ozone, the corrosive gas in smog. Heat helps ozone form.

The report from the nonprofit Environment California confirms that ozone violations spike during episodes of high temperature. Fresno and Bakersfield are among the eight places featured in the report.

"The warmer the weather is, the more likely people are breathing bad air," said Jason Barbose, the report's author, who is based in the Sacramento office of Environment California.

The report comes as state and regional air officials work on ways to hasten the ozone cleanup in the Valley, one of the worst places in the country for such pollution. Ozone triggers asthma and other lung problems.

The ozone cleanup target date in the Valley is 2024, which officials hope to beat by several years by reducing pollution from diesel trucks, other vehicles and industries.

Global warming gases, such as carbon dioxide and methane, generally do not play a direct role in forming the Valley's pollution. But the rising heat could make ozone worse.

Global warming is the gradual rising of worldwide temperatures as the buildup of such gases as carbon dioxide trap the sun's heat in the atmosphere. Polar ice caps will decrease and ocean levels will rise, scientists say.

Controlling gases linked to climate change is not the immediate priority for the San Joaquin Valley Air Pollution Control District. Pollution controls are focused on the local ozone and particle pollution that threaten the health of residents.

Some controls reduce both local air pollution and global warming gases. Better vehicle fuel efficiency, for instance, would address both local and global problems, said Seyed Sadredin, air district executive director.

"Whenever we can get a win-win situation like that, we push for it," he said.

But both local air quality and global climate concerns should be addressed, said Carolina Simunovic, environmental health director for Fresno Metro Ministry.

"We've already gotten the message about natural disasters tied to the warming climate -- big forest fires, big hurricanes," she said. "There has been a natural disaster going on here in the Valley for decades with poor air quality. It will get worse with global warming."

## **Many blame threat on global warming**

By Mike Lee, staff writer

San Diego Union-Tribune, Tuesday, October 30, 2007

Get used to it.

That's what many climate experts are saying about catastrophic wildfires, including the dozen that have turned San Diego County into a disaster zone for the past week.

They believe such blazes will become a regular part of life in Southern California because global warming is intensifying nature's cycles by lengthening fire seasons and prolonging droughts in parts of the West.

The consequences would be more deaths, more houses consumed by flames and more budgets busted by firefighting costs.

"The fires we just experienced are some of the first effects we are feeling from climate change," said Walter Oechel, a biology professor at San Diego State University who had to evacuate his home in Jamul last week.

"We now have a very graphic representation of what many of us have been saying for a long time. It's hitting me very directly and personally, as well as the county as a whole," he said.

Scientists and policy-makers said the threatened succession of massive wildfires is a powerful reason to cut greenhouse gas emissions, which contribute to global warming. They also said smarter development policies and better fire-prevention plans can help reduce damage from future infernos.

In recent years, many researchers have linked global warming to environmental changes such as hurricanes and polar ice melt. This has touched off a worldwide debate about climate science, what impact humans have on Earth's atmosphere and whether higher temperatures worsen natural disasters.

Scientists are careful to note that they can't definitively link any specific event to climate change.

"The connection between global warming, Santa Ana winds and extremely low Southern California precipitation last winter are not known with sufficient certainty to conclusively link global warming with this disaster," said researchers at the University of California Merced and the University of Arizona in a statement released Friday.

Not everyone is convinced that global warming explains the recent blazes.

"I am a little skeptical," said Thomas Wordell, an analyst with the National Interagency Fire Center in Boise, Idaho. "The ecosystem (in Southern California) has been very fire prone for a long time. We've had droughts before anybody came up with the terminology of climate change."

Wordell's view aside, international, national and local groups of scientists are increasingly alarmed about the potentially devastating effects of climate change. These include the United Nations' Intergovernmental Panel on Climate Change, which recently won the Nobel Peace Prize for its work, the National Research Council and numerous University of California researchers.

They generally contend that the connection between global warming and more destructive wildfires is too clear to ignore.

The flames that have consumed much of San Diego County and Southern California "are consistent with what the latest modeling (studies) show," said Ronald Neilson, a professor at Oregon State University and a bioclimatologist for the U.S. Forest Service.

"This is exactly what we've been predicting to happen, both in fire forecasts for this year and in longer-term patterns," Neilson said.

Five years ago, Neilson and other Oregon State University researchers predicted that periodic increases in rain and snowfall, combined with higher temperatures and rising levels of carbon dioxide in the atmosphere, would spur vegetation growth. That would add to already extensive quantities of fuel caused by decades of fire suppression, in which blazes are not allowed to burn out of control and thereby eliminate dead or dying vegetation.

A projection last year by several academic and government scientists said the failure to significantly reduce greenhouse gas emissions could lead to 55 percent more large wildfires in California by the end of the century.

In addition, a 2006 study in *Geophysical Research Letters*, the publication of the American Geophysical Union, suggests that Santa Ana winds may occur more frequently in November and December as Southern California's climate becomes warmer. In turn, that would heighten the risk of deadly blazes.

Other data show cause for concern as well.

In the 1960s, wildfires burned roughly 4.5 million acres in the United States each year. Since 2000, the average annual total is more than 7 million acres, according to the National Interagency Fire Center.

Almost all of the country's largest fires in recent years have been in the West.

"In the past two decades, wildfires have become larger, they have lasted longer and burned much more area than in the past," said Jay Gulledge, senior scientist at the Pew Center on Global Climate Change in Arlington, Va.

Last year, scientists and land managers from the Association for Fire Ecology gathered in San Diego to discuss such trends. Their talks resulted in "The San Diego Declaration," a document that looks eerily prescient in light of the past week's blazes.

"Fire suppression costs may continue to increase, with decreasing effectiveness under extreme fire weather and fuel conditions," the statement says.

From 1997 through 1999, federal agencies spent about \$400 million a year on fire suppression. Since then, the average has grown to more than three times that figure: It's about \$1.4 billion this year, according to the National Interagency Fire Center.

One unanswered question is whether permanent or temporary climate changes are causing the ongoing drought in the Southwest.

Researchers connect the drought to the retreat of winter storms and the extension of high-pressure weather patterns into the Southwest, which reduces rainfall. They also discuss how global warming could be causing snowpacks to melt too early each year, creating water-supply shortages in the summer and fall.

Other connections between fire and climate change are more complex. For example, large fires generate enormous volumes of carbon dioxide, which promotes additional warming and more fires.

The amount of greenhouse gases emitted by last week's blazes in Southern California equal that of roughly 500,000 cars traveling on the road for one year, according to the state Air Resources Board.

Increasing carbon dioxide in the atmosphere also promotes plant growth, particularly in places with limited water, said Oechel at SDSU.

"We could have the unfortunate combination of more fuel and more severe fire weather coming together," he said.

To combat such problems, policy-makers and environmental groups said the latest fires should spur nationwide efforts to reduce greenhouse gas emissions from tailpipes and factories.

"The first rule of getting out of a hole is to stop digging," said Terry Tamminen, former chief of environmental protection for California and a senior fellow at the New America Foundation think tank in Washington, D.C.

## **County finds comfort in getting back to class**

By Chris Moran, Blanca Gonzalez and Leonel Sanchez, staff writers  
San Diego Union-Tribune, Tuesday, October 30, 2007

It looked like the first day of school at Westwood Elementary in Rancho Bernardo yesterday, only more somber.

A big, colorful sign on the school fence greeted the returning families: "Welcome Back Westwood. We Love RB - Thank You Fire Fighters, Police, Armed Forces."

Parents escorted nearly all the children to campus, which is the norm at Westwood. But masks to protect against foul air aren't. Nor is a student showing up without a backpack, without a lunch, without anything.

An estimated 50 Westwood families lost all their possessions last week in a fire that wrought its most spectacular property destruction within walking distance of the school.

The tight-knit school community had already banded together to supply 100 fully stocked backpacks for any student who needed one.

After dropping off their children, dozens of parents accepted Principal Mike Mosgrove's invitation to coffee and doughnuts - and counseling and other services if needed - in the school's multipurpose room.

Kim Santos, a mother of four whose home was not destroyed, said spending time with her neighbors is good therapy.

"I stop, I talk, I cry. . . . I stop, I talk, I cry, that's my counseling," Santos said as she chased after her toddler.

About 300 homes in Rancho Bernardo and the rest of the Poway Unified School District were lost in the fires, including 20 belonging to teachers and staff members. But the schools were among the first to reopen after a week in which the county's public schools were shut down.

Of the county's 42 public school districts, 23 held classes yesterday. Students in most other districts return today. By tomorrow, nearly all of the county's half-million students in kindergarten to 12th grade should be back in class.

Megan Harshman, 16, a Rancho Bernardo High junior, said most students were glad to return to campus yesterday.

"It's nice to be able to see everyone and hug each other . . . just to see people," Megan said.

About 100 students and three staff members at the school lost their homes last week.

One of them is sophomore Kari Afshari, 15. She said she didn't feel emotionally ready to return to school but did so because she wanted to see her close friends, including her boyfriend, junior Chris Kutner, 16, who also lost his home.

"It's very surreal to be back," Chris said. "The teachers were great. We spent a lot of time talking. They want to help the kids get through this."

So do the folks at Granite Hills High in El Cajon. Rachel Valenzuela, 24, a Granite Hills English teacher, said she remembers feeling "helpless" four years ago when she was a student at the University of California San Diego during the Cedar fire.

She organized a fundraiser then and decided to do so again, calling on her school community to give to Rancho Bernardo High fire victims.

"(Granite Hills High students) have a lot of connection to this because of the Cedar fire and they feel they want to do something. They understand how devastating it is for an entire community," Valenzuela said.

More than 100 students who attended Granite Hills lost their homes in the 2003 Cedar fire.

The mood at the school was "really chill" yesterday, senior Stacy Wilkins said. "Everyone (was) hugging and asking if you're OK."

"Most were happy to be back at school," Valenzuela said. "They had questions like whether they're going to have to make up the work they missed and what's going to happen to homecoming, which was canceled last week because of the fires."

In the Poway district, Westview High Principal Dawn Kastner got a call at her Rancho Bernardo home at 4 a.m. last Monday that she needed to open her Rancho Peñasquitos campus to evacuees.

She asked if she had time to shower and was told no.

"They said you need to leave right now," Kastner said, because officials needed to make the Reverse 911 calls and the shelter had to be open to accept evacuees.

She grabbed some clothes and her makeup bag; her house was ashes and debris the next time she saw it.

"People have been incredible," Kastner said as classes started again yesterday. "Several kids came up to hug me today."

Local campus closings were more extensive than in 2003.

State Superintendent of Public Instruction Jack O'Connell has already indicated that schools won't have to make up the days to collect state funding based on daily attendance, so the fires aren't likely to extend anyone's school year.

Yesterday, the schools in session restricted physical activity because of air quality.

Chula Vista fourth-graders chatting happily about being back in school showed off a new vocabulary word: evacuation.

They were among the 27,000 students in the Chula Vista Elementary School District back in school yesterday. The students wrote thank-you notes to the city's police officers and firefighters. They called them heroes and thanked them for saving their homes.

Virginia Loh, a teacher at Liberty Elementary School, has her third-graders write every day, and she was as persistent as ever in marking punctuation, spelling and grammar errors with her brown pen.

But she could see the undercurrent of anxiety in the thank-you notes. One of her students wrote, "I can still smell smoke. I wonder if any other neighborhoods are safe or evacuated." Another wrote, "I know when the fire gets on me to stop, drop and roll."

Liberty sixth-grade teacher Dawn Navarro started the day by talking with her students before she moved on to textbooks.

But the fire spread to the ensuing math lesson. When Navarro had her students open their books to the chapter on percentages, a girl started the lesson by mumbling, "5 percent contained."

### **Connector Data Faulty, Judge Is Told**

By Katherine Shaver, Washington Post Staff Writer  
Washington Post Tuesday, October 30, 2007

Federal highway officials who approved an 18.8-mile intercounty connector underestimated how much the fine particles in vehicle exhaust would affect people breathing nearby, road opponents argued yesterday in a Greenbelt courtroom.

The Federal Highway Administration, they argued, erred by basing its pollution projections on an air quality monitor 1.5 miles from Interstate 95, at the eastern end of the intercounty connector's planned route. Fine particles in vehicle emissions, opponents said, cause the most health problems to people within one-fifth of a mile, making that monitor too far away to be reliable.

That and other errors led to the agency's "scientifically fuzzy" findings that exhaust from vehicles using the six-lane road would not violate federal clean-air standards, said Robert Yuhnke, a Colorado lawyer for the Sierra Club and Environmental Defense.

The three-hour hearing in U.S. District Court was the second and final hearing in two lawsuits aimed at stopping construction of the \$2.4 billion toll highway between Gaithersburg in central Montgomery County and Laurel in northwestern Prince George's County.

The case has drawn national attention as highway agencies and environmental groups watch how judges interpret restrictions on "particulate matter" issued by the Environmental Protection Agency in March 2006. U.S. District Court Judge Alexander Williams Jr., who is hearing the intercounty connector case, said he has found "nothing out there" in law journals about "what agencies are required to do" when implementing the new rules.

The judge's decision will determine whether construction will continue on schedule, with the complete road opening by 2012, or whether the state will have to redo parts of its environmental impact study, which could take years. An appeal by either side also could delay construction by two to three years, legal experts said.

Although the judge did not say which way he was leaning, he had more pointed questions, particularly for government lawyers, than he did during the first hearing Oct. 1.

"The question in my mind right now is how confident are you in these [air pollution] calculations?" the judge asked Mark Nitzczynski, a U.S. Justice Department lawyer for the Federal Highway Administration.

Williams said he will rule by Nov. 8.

The Maryland State Highway Administration, which began construction this summer, agreed as part of the court case to delay until Nov. 12 any work that would cause major environmental damage.

Particulate matter, especially prevalent in the black exhaust of diesel trucks, can pose serious health problems because it can get deep into the lungs, according to the EPA. It has been linked to aggravated asthma, decreased lung function and premature death for people with heart or lung disease, and it is especially dangerous for children and the elderly, the EPA said.

Nitczynski said the Federal Highway Administration followed the EPA's instructions in its study. He said computer models aren't sophisticated enough to accurately predict how much fine-particle pollution a new road will generate. That's why highway officials -- with the EPA's blessing -- based their predictions on the I-95 air quality monitor, he said.

The EPA regulations "require a qualitative analysis based on the best information you have, and that's what happened here," Nitczynski said.

He said the concentration of fine particles is expected to drop dramatically nationwide after 2010, as new federal standards on vehicle emissions take effect.

## **Toyota imagines next-generation hybrid**

By Yuri Kageyama, Associated Press  
Tri-Valley Herald, Tuesday, October 30, 2007

TOYOTA, Japan - Since he was a teenager, Takeshi Uchiyamada's dream was to make a car. But as he entered his 50s as a Toyota engineer, he had all but given up hope he would ever head a project to develop a model.

In 1994, he finally got his dream. Little did he know that the car he was about to design - the Prius - would revolutionize the global auto industry.

Uchiyamada, 61, now executive vice president, was tackling the first mass production gas-electric hybrid, which celebrates its 10th anniversary in December.

With other engineers, he trudged away at 16-hour work days, patiently testing hundreds of engines. Fistfights broke out over what option to take to overcome engineering obstacles.

The Prius was a big step forward for the future of green cars. Up next for Toyota and its rivals: Far more powerful batteries for next-generation hybrids, plug-in electric cars and eventually zero-emission fuel-cell vehicles powered by hydrogen, which combines with oxygen in the air to form water.

In an interview, Uchiyamada recalled the exhaustion, the loneliness and the gambles as his team debunked Toyota's image as a safe and boring imitator of rivals' successes.

Introduced in Japan in December 1997, and the following year in the U.S., the Prius, now in its second generation, gets about 46 miles per gallon switching between a gas engine and electric motor. It has been by far the most successful hybrid, selling a cumulative 829,000 vehicles - making up for most of Toyota's nearly 1.2 million hybrid sales.

Toyota has gotten a kick from the Prius, an enhanced global image for technological innovation, social responsibility and fashionable glamour, analysts say.

The Prius is also one solid bright spot for Toyota, whose reputation for quality is starting to tarnish as it targets a record of selling 10.4 million vehicles globally in 2009. Meanwhile, its recalls are also ballooning.

But when it all began, Uchiyamada wasn't even thinking hybrids.

Orders from management - then president Hiroshi Okuda and Shoichiro Toyoda, the company founder's son and chairman - were ambiguous: Come up with the 21st century car, the vehicle that would hands-down beat the competition in mileage and environmental friendliness.

Uchiyamada initially proposed an advanced gasoline engine that was quickly rejected as lacking imagination. But advanced technologies like fuel cells and the electric vehicle were too expensive for a commercial product.

Creating a hybrid would demand excruciating labor, and management had moved up the deadline to 1997. The engineering obstacles were tremendous, especially the development of the hybrid battery, which must deliver power and recharge in spurts as the car is being driven.

Uchiyamada ditched the usual back-up plans and multiple scenarios, focusing his team on one plan at a time and moving on when each failed.

As Uchiyamada tells it, the Prius wasn't the kind of car Toyota would have ever approved as a project, if standard decision-making had been followed. It was sure to be a money loser for years.

Conventional wisdom was wrong; Toyota's once skeptical rivals are now all busy making hybrids.

The Frankfurt auto show in August had hybrids galore.

Porsche AG showed off a version of its Cayenne sport utility vehicle that is powered by hybrid technology developed with Volkswagen, and BMW pulled back the curtain on its X6, an SUV coupe crossover hybrid.

General Motors Corp., which makes the Saturn Vue, Saturn Aura and Chevrolet Malibu hybrids, is working on a more advanced lithium-ion battery to beat Toyota in the race to bring to market plug-in hybrids, which recharge from a regular home socket. GM has begun production of a two-mode gas-electric hybrid transmission system for the 2008 Chevrolet Tahoe Hybrid and GMC Yukon Hybrid SUVs which uses a computer to choose from thousands of combinations of two electric motors and the gasoline engine.

Ford Motor Co. already has its Escape Hybrid, introduced in 2004, but is working on improved versions. Earlier this year, Ford and Southern California Edison agreed to test rechargeable hybrid vehicles in an effort to speed up their mass production.

Chrysler LLC is debuting a new hybrid system next year on the Chrysler Aspen and Dodge Durango sport utility vehicles.

Hybrids will be among the experimental, or "concept," models from Toyota's rivals on display at the Tokyo Motor Show which opened last week.

Toyota showed a "concept" plug-in Prius made of carbon fiber reinforced plastic that's about a third of the weight of the current Prius and doubles mileage. Nissan Motor Co. has fallen behind Toyota in hybrids, and is instead focusing on electric cars with plans to mass market them by 2012.

Toyota officials acknowledge Honda Motor Co. is their biggest threat in developing new hybrids. Honda, which already markets the Civic hybrid, is hot on Toyota's heels with a hybrid sports car, a fuel-cell vehicle and other ecological cars.

Automakers worldwide seem to be taking hybrids as a serious option and demand should grow, said Koji Endo, auto analyst with Credit Suisse Japan. He noted interest in hybrids is growing in other parts of the world, such as China, a burgeoning auto market.

Yasuaki Iwamoto, auto analyst with Okasan Securities Co. in Tokyo, says Toyota faces a tough challenge with the next Prius, expected in a few years, with other automakers all hot on its heels.



"The popularity of Toyota's hybrids has been limited so far to the Prius. That means Toyota still has a lot of work to do," he said. "If a car doesn't meet consumer expectations, it won't sell. That's the fate Prius must now shoulder: It can't disappoint fans."

Uchiyamada and Satoshi Ogiso, executive chief engineer working on the next Prius, confidently promise greater things.

The third-generation Prius could include a new lithium-ion battery more advanced than the current nickel-metal hydride battery, allowing more power to be packed into a smaller battery.

But engineers acknowledge that will require a breakthrough in battery technology.

Endo said Toyota must be careful in introducing the lithium-ion battery, which has been found recently to be prone to fires in laptops. Even a single hybrid battery fire could destroy an automaker's reputation, he said.

Uchiyamada denied media reports that problems in developing the lithium-ion battery would delay the new Prius.

Toyota has other options in the works to dramatically boost mileage and performance, so a battery upgrade isn't the only way to revamp the Prius, he said. Toyota recently has begun public road tests on a plug-in hybrid.

Uchiyamada - who has spent 38 years as an engineer at Toyota - admits much of Prius' success was sheer luck.

He still remembers the thrill he felt when he saw a Prius on the streets driven not by an engineer, but by a real customer.

Ogiso, 46, agrees. Toyota workers - who haven't faced massive layoffs like their American counterparts - are invested in the company's future.

"Our bosses are going to be around five more years. But we're going to be leading this company for 10 years, maybe 20 years," he said. "I feel the Prius is like my own child."

[Bakersfield Californian editorial, Tuesday, October 30, 2007:](#)

### **We may breathe easier**

Kudos to Gov. Schwarzenegger for giving the major cities of the Central Valley more say on the San Joaquin Valley Air Pollution Control District Board -- and two new seats to experts in a position to make policy decisions based on their specific areas of expertise.

Schwarzenegger recently signed state Sen. Mike Machado's SB 719, a move that clean-air advocates have every reason to cheer. The new law makes room on the expanded board for a doctor and a scientist who live under the murky skies of San Joaquin Valley -- and who specialize in the health impacts of air pollution.

The law also opens two additional spaces on the board for city council representatives, increasing the total board membership to 15, and giving cities like Bakersfield, Fresno and Modesto a stronger voice.

Some farmers and business groups objected to Machado's bill because it will detract from their influence over the air board, which has broad regulatory power over homes, businesses and agribusiness interests. Perhaps it will.

But they were overruled by some of the dirtiest air in the nation -- air that has brought valley residents sky-high asthma rates and an array of pollution-related respiratory problems that directly translate into 1,000 deaths each year. The Central Valley needs to start moving quickly and decisively in the direction of workable solutions, and Machado's law paves the way.

Kudos also to state Sen. Dean Florez, D-Shafter, who along with Machado and Assemblyman Juan Arambula, D-Fresno, was one of only three San Joaquin Valley lawmakers to vote for the bill.

That took guts, but it was the right thing to do.

[Modesto Bee, Commentary, Tuesday, October 30, 2007](#)

### **Short Take: Lights, cameras, action in MID boardroom**

The public's business is always best conducted in public view. That's why we encourage the Modesto Irrigation District board of directors to give serious consideration to a suggestion from the public that the district's meetings be televised. The board meets at least twice per month, but sometimes more often. While most issues are not exactly scintillating -- payments to contractors, granting easements and the details of running a \$400 million annual operation -- other items are of vital importance. MID sets electricity rates for about 112,000 customers and water rates for area farmers. Because all utilities are being required to help reduce carbon dioxide emissions, the decisions of this board even have global implications. Televising meetings would likely require a substantial equipment upgrade, but it is worth the cost to let the public have a window into the board's workings. Besides, there might be other benefits. People who appear on television often want to show their best side to the public; civility could become the order of the day.