

## **On the air: CalNex study tackles pollutants, emissions**

By Jeff Goodman, Californian staff writer

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Researchers from across the country have gathered in Bakersfield to conduct a comprehensive study of air quality, hoping that a deeper understanding of the environment will lead to cost-effective regulatory policy.

Hosted by the University of California Cooperative Extension and funded by the California Air Resources Board, the CalNex study aims to provide scientific background for legislation that would curb harmful emissions.

Bakersfield was chosen as a site for the project, which began in May and will continue through the end of June, because of its problems with air quality and its relatively strong sources of atmospheric compounds.

"You need to measure what's in the air, and then from that you go back and look at crafting regulatory policy," UC Cooperative Extension advisor John Karlik said. "But science has to precede policy."

The project, which has another location at the California Institute of Technology in Pasadena, also involves measurements made from National Oceanic and Atmospheric Administration aircraft and the research ship Atlantis.

About 35 people from schools such as UC Berkeley, University of Wisconsin and University of Miami are conducting research at the Bakersfield site, where data are gathered 24 hours a day. Although the research teams have specific interests, the data are archived and accessible to all of them.

The site, located on South Mount Vernon Avenue just south of Highway 58, features a handful of bungalows that house instruments and computers for gathering and analyzing data as well as a 60-foot tower that helps the researchers acquire a variety of measurements.

"These are mostly one-of-a-kind instruments," said Bill Brune, department head of meteorology at Pennsylvania State University. "There may be only a few in the world, and they can measure things most people can't measure."

Brune, who has been working on air quality studies for 20 years, said the Bakersfield site offers the researchers an "urban mix" of elements: homes, trees, wind, small bodies of water nearby and passing cars on the highway.

"We can measure more things, and measure them better," he said.

Drew Gentner, a graduate student in civil and environmental engineering at UC Berkeley, is studying the chemical composition of volatile organic compounds. These compounds, which have both human and non-human origins, can be harmful to people and the environment, he said.

"The San Joaquin Valley has a lot of pollution, but this study is directly applicable to the rest of the county and the world," Gentner said.

The participating researchers have already begun assessing data, and Brune said the meetings at which findings are discussed have been very collaborative.

"It's all about how we put those data into a larger framework," Karlik said. "We think it's of broader public interest."

## **Ground breaks on solar project at CSUB**

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Ground broke Monday on the \$9.5 million solar energy project at Cal State Bakersfield that will generate up to 30 percent of the university's electrical energy and provide shade to 500 parking spaces.

Parking lots E and I on the south side of campus will be closed until early September. It will take about one month after the fall quarter is under way to configure the system to go live, according to CSUB.

The project is part of a partnership between the CSU system and SunEdison designed to offset energy consumption and reduce emissions. Fifteen campuses are involved.

Solar panels mounted on the rooftops of parking canopies will be installed over roughly 500 existing parking spaces, generating more than 2.1 million kilowatt hours per year.

Energy generated will equal the annual consumption of 150 homes and reduce carbon dioxide emissions by more than 2.2 million pounds per year -- equivalent to removing about 5,900 automobiles from the road, officials have said.

CSUB will buy solar energy at 5 percent to 10 percent less than current retail rates.

Meanwhile at Bakersfield College, construction of a similar project kicked off immediately after the Amgen Tour of California race last month.

Its \$8.3 million project will cover the northeast parking lot with solar panels, and will supply about a third of the campus' energy needs. It's expected to be complete by the start of the fall semester.

Throughout Kern County, K-12 districts have recently discussed plans to work with energy companies to install solar panels at campuses to cut energy expenses. Greenfield Union School District, which hopes to have companies install panels on top of roofs of nearly all 11 campuses, will vote on the matter later this month.

[Hanford Sentinel, Commentary, Monday, June 14, 2010:](#)

### **So She Thought: Oil, smoke, and the generation that wanted to be different**

Back in the late 1960s and early 1970s the ecology movement was getting under way, and my generation was all about "saving the planet" and doing things differently than The Establishment (who we referred to as "The Man," or on better days, "our parents") once we were old enough to be in control of corporations, governments and businesses.

So it is with some dismay and much rueful head-shaking that I've been watching the live Internet feed of the Gulf of Mexico turning into a blobby, greasy, gas station bathroom sink. And I've been listening as my age group peers at BP struggle to wipe the dark brown stain off their reputation as an eco-friendly oil corporation and the man in charge at the White House searches in vain for someone's "ass to kick" (his words, not mine.)

There's a little eco-crisis going on closer to home, too, as we've woken up these last few weekend mornings to go outside and return moments later with our eyes stinging and our lungs closing up, as the guy who owns an orchard nearby conducts yet another not-so-secret nighttime burn of whatever it is he's unable (or just unwilling) to dispose of any other way.

My husband, who is also a farmer, is not sympathetic to Burning Orchard Man, since his own farming operation stopped burning a couple of years ago. It makes him angry that the air quality around his home is destroyed several weekends in a row during each season by someone who is actively trying to avoid compliance with the law, sneakily burning at night and on weekends, when compliance officers are stretched the thinnest and air pollution control offices are closed.

No matter how you feel about each of these eco-events, it's a conundrum for this generation – the ones who swore they'd do things differently – regarding our own role and responsibility in situations like this.

BP, for example, cannot be held completely responsible for the environmental catastrophe in the Gulf, as much as the world audience and our own president would like to make them. If you own a car, a boat, an airplane or even just use electricity in your home, your consumption, as well as mine, is part of the problem.

While Burning Orchard Man is going to be reported and hopefully caught and fined (enough of the neighbors are, like us, angry to a point where we're no longer willing to just let it go), what if he's burning because it's simply too cost prohibitive to stay in business and haul away his tree clippings or process them on-site?

Are we willing to pay more for the walnuts, almonds and pecans that come out of orchards which stay in compliance with the law? Or will we complain about the prices and skip the pecan pies in favor of lemon meringue?

Regarding the Gulf crisis, are we willing to strictly curtail our use of oil and gas to reduce demand, to a point where oil production in places like the Gulf of Mexico can be dramatically reduced and drilling there is no longer a necessity? How much are we willing to sacrifice to stop being part of the problem?

And therein lies the conundrum: Our generation, so dedicated to the ideals behind the environmental movement, still wants to live in much the same way our parents did. And who can blame us? While we grew up wanting to change how business was done and how government operated, we never really equated that with life being harder, more expensive, with less to go around for everyone.

In short, once our ideals hit the starkness of reality, we made a decision to keep things the same as they've always been. And now, when we want to point fingers at the responsible parties, we have to look in the mirror in order to do it.

I know I'm that way. While I hate the images of oil-covered birds dying in the Gulf, you can bet I still have pleasure trips planned in my gas-burning car for this summer. I want Burning Orchard Man to stop polluting the air my family and I breathe on the weekends, but I'm also sympathetic to the plight of the small farmer and would hate to see that orchard replaced with yet another subdivision (which would carry its own kind of pollution), as the nut-producing business just got too expensive and inconvenient for him to carry on with.

No, for The Generation That Was Going To Be Different, we have some serious thinking to do about how we want to live our lives, and if we're not willing to make any sacrifices to put into place the changes we dreamed of long ago, then we must all willingly share the blame when the inevitable consequences occur.

And we must own (and pay for) the fact that while there's a high price tag associated with changing how we do things, there is an equally high price tag which comes with doing business as usual, in terms of human life and the environment.

So now that we're The Establishment – "The Man" – what, if anything, are we going to do about it? The next generation is already asking.

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