Modesto Bee, Guest Commentary, Monday, March 10, 2008

# Help district make clean air a way of life in the valley

By Seyed Sadredin

Doing the right thing can have tangible rewards. And in the case of the valley's air pollution, doing the right thing can put a new hybrid automobile in your garage.

The San Joaquin Valley Air Pollution Control District is rolling out the most sweeping initiative in its history,

Healthy Air Living. This comprehensive, year-round, multifaceted program involves every sector of the valley's population. It's a new collaboration with residents, businesses and organizations. The goal is simple: Improve the health and quality of life of all valley residents through strategies to clean up our air.

One facet of Healthy Air Living is a weeklong intensive focus on alternatives to the things we do that produce emissions, from July 7 to 13 (hence, the opportunity to win the aforementioned vehicle). More details on Healthy Air Living Week will be forthcoming this spring.

You might be asking, why Healthy Air Living? Why now?

The valley's tough air-quality challenges, which are a surprise to no one, present an opportunity for all of us. We can take the valley to a place where our ingenuity, creativity and hard work will be a source of genuine pride. We already are well on our way. Many regions are looking at valley strategies -- including pioneering rulemaking (the unprecedented development-impact rule recently vindicated after a two-year court battle) -- as a model for improving their air.

The goal of Healthy Air Living is to make air quality a real priority in the day-to-day decisions of all individuals and businesses. Much can be accomplished through voluntary measures that help individuals and businesses save money and reduce pollution.

In advancing Healthy Air Living, we need

help from every individual, business and municipality. Businesses already have invested great sums in applying clean-air technologies and will continue to be major partners. The district is conducting intensive, targeted outreach to segments of the community that

previously have not been at the forefront of the air-quality dialogue.

To achieve the success we know is possible, we need to build alliances with new participants, such as faith-based organizations. This natural overlap with good stewardship of the Earth and caring about air quality has exciting potential. The district is looking forward to working with this vibrant and engaging community.

Strategies are being developed with the capabilities and needs of target groups in mind. For example, our outreach to businesses and cities offers a virtual "toolbox" of strategies that ultimately can reduce vehicle miles traveled by individuals: telecommuting, flexible work schedules and on-site employee services such as banking, stamp sales and dry cleaning pickup and delivery.

Individuals can put Healthy Air Living tips to work at home by forgoing aerosols or using an electric lawn mower instead of a gas-powered mower. These familiar strategies were part of the Spare the Air program, which has been absorbed into Healthy Air Living.

To explain Healthy Air Living and solicit more ideas, the air district is hosting three free one-day Healthy Air Living summits:

March 25, Bakersfield, Holiday Inn Select Hotel and Convention Center;

March 26, Fresno, Radisson Hotel and Conference Center;

March 27, Modesto, DoubleTree Hotel.

Registration and more information is available at www.healthyairliving.com.

I invite each valley resident to take a part in strategizing Healthy Air Living and attending a summit. We can make dramatic improvements in our air quality years ahead of schedule. But it requires all of us to embrace this initiative and live a healthy-air life.

*Sadredin is the executive director of the San Joaquin Valley Air Pollution Control District.*

Merced Sun-Star Guest Commentary, Saturday, March 8, 2008:

## Doing the right thing for the Valley's air

*EDITOR'S NOTE: Sadredin is air pollution control officer and executive director of the San Joaquin Valley Air Pollution Control District.*

Doing the right thing can have tangible rewards. And in the case of the Valley's air pollution, doing the right thing can put a new hybrid automobile in your garage.

The Valley Air District is rolling out the most sweeping initiative in its history, Healthy Air Living. This comprehensive, year-round, multi-faceted program involves every sector of the Valley's population. It's a new collaboration with every Valley resident, business and organization, and its goal is simple: To improve the health and quality of life of all Valley residents through strategies that clean up our air.

One facet of Healthy Air Living is a weeklong, intensive focus on alternatives to the things we do that produce emissions during July 7-13 (hence, the opportunity to win the aforementioned vehicle).

The Valley's tough air-quality challenges, which are a surprise to no one, present an opportunity for all of us to shine. Collectively, we can take the Valley to a place where our ingenuity, creativity and hard work on cleaning our air will be a source of genuine pride for all of us. We are already well on our way, as many other regions are looking at Valley strategies, including pioneering rulemaking (witness the unprecedented development- impact rule that was vindicated recently after a two-year court battle), as a model for their air basins.

With Healthy Air Living, our goal is to make air quality a real priority in the day-to-day decision-making process for all individuals and businesses. The good news is that much can be accomplished through "win-win" voluntary measures that help individuals and businesses save money and reduce air pollution.

In advancing Healthy Air Living, we need help from every individual, business and municipality in the Valley. Businesses have already invested great sums of money in applying clean-air technologies and will continue to be major partners in this new initiative.

But to achieve the success we know is possible, we need to build strong alliances with some new participants, such as faith-based organizations. This natural overlap with good stewardship of the Earth and caring about air quality has exciting potential. In fact, the District is conducting intensive, targeted outreach to segments of the community such as the faith-based community, which have not previously been at the forefront of the air-quality dialogue. The Air District is looking forward to working with this vibrant and engaging community.

Strategies for Healthy Air Living components are being developed with the capabilities and needs of very specific target groups in mind. For example, our outreach to the business community and the municipalities offers a virtual "toolbox" of strategies that can ultimately reduce vehicle miles traveled by individuals within each organization: telecommuting; flexible work schedules; and on-site employee services such as banking, stamp sales and dry cleaning pick-up and delivery are just a few.

Individuals can also put Healthy Air Living tips to work in their daily lives at home. The Valley Air District is hosting a free, one-day Healthy Air Living at the Doubletree Hotel in Modesto on March 27.

Registration materials and additional information is available at www.healthyairliving.com <http://www.healthyairliving.com>

## Air quality is getting better

From reports
Merced Sun-Star, Modesto Bee and other papers, Saturday, March 8, 2008

If the air seemed to clear recently, it isn't your imagination.

Pollution control officials say air quality is best in springtime, and on top of that, Stanislaus County residents kept the air cleaner this winter than in past years.

The San Joaquin Valley Air Pollution Control District detected only one day this year in Stanislaus County when pollution reached the level at which the district restricts wood burning. That compared to nine days last year and 16 days the prior year. Merced and San Joaquin Counties had no days compared to two and one, respectively, last year.

Anthony Presto, spokesman for the air district, said the drop is a direct result of people cutting back on wood burning. "What has become evident is that residents of the San Joaquin Valley really care and are more aware than ever before about air quality and public health," he said.

Five years ago, the district instituted its Check Before You Burn program in which people are asked to verify air quality on the district's web site at www.valleyair.org before lighting stoves or fireplaces. This year's season ended Feb. 29 and will restart Nov. 1.

Then, residents might see more no-burn days even if the air is just as good, Presto said, because air district officials will consider raising the bar for air quality in April.

Winter air pollution is generally caused by burning mixed with stagnant air. That differs from summer pollution, which Presto said is typically caused by vehicle emissions and organic compounds like gasoline fumes baked by the sun. Autumn pollution meanwhile, arises as dry conditions promote dust from agriculture and people begin using stoves to warm homes.

## Air plan to eradicate tiny pollutants

**District officials say cleanup will take six years**
By Alex Breitler - Record Staff Writer
Stockton Record, Monday, March 10, 2008

FRESNO - Valley air cops are picking a fight with the most dangerous of all air pollutants: tiny pieces of soot whose width is less than 3 percent of a human hair.

Environmental watchdogs, however, say the San Joaquin Valley Air Pollution Control District's new plan - released for public comment this week and up for a vote in April - fails to clean the air fast enough.

This is a common theme. Environmentalists last year leveled similar charges against the district for an ozone cleanup plan that delayed compliance with a federal standard.

Air aware

PM2.5 is considered the most dangerous pollutant in the San Joaquin Valley, resulting in $3.2 billion in health care costs each year.

It's so small that it lodges in the lungs, cannot be exhaled and enters the bloodstream.

Among the health problems it causes:

• Aggravated asthma.

• Decreased lung function in children.

• Chronic bronchitis.

• Irregular heartbeat.

• Nonfatal heart attacks.

• Lung cancer.

• Premature death in people with heart or lung disease.

Public comments on the air district's new PM2.5 control plan will be accepted starting late this week. To read the plan, visit www.valleyair.org and click on "Air Quality Plans" and "Particulate Matter Plans."

"Here we go again," said Paul Cort, an attorney with Earthjustice. "The district is once again dragging its feet by not doing everything it can to clean the air as quickly as possible."

District officials say that's not true; it will take six years to get the job done.

"All of our analyses, and we did a modeling work, say that 2014 is the first year we can demonstrate attainment" with the federal soot standard, which was established in 1997, said Don Hunsaker, plan development supervisor for the district.

The smallest pieces of particulate soot, known as PM2.5, are not as big a problem in San Joaquin County as they are in the southern part of the Valley, experts said. But PM2.5 emissions here could be blown into areas where it's a much more serious risk.

The particulates come from many sources, and the plan's scope is broad.

But on the table are a number of options, including tightening wood-burning restrictions during the winter. This could lead to more days when residents are prohibited from burning in their fireplaces.

Environmentalists are most concerned with the district's reliance on a state plan to clean up heavy-duty trucks on the highways. The state's program has yet to be approved and might not have a positive effect on the air for several years.

Some call for limits placed on construction equipment such as tractors and harvesters when air quality is poor. They also want replacement of internal combustion engines used to power irrigation equipment up and down the Valley.

"The district is just relying too heavily on that particular (truck) rule to reduce air pollution," said Nidia Bautista of the advocacy group Coalition for Clean Air.

But district officials say it's up to the state to regulate mobile sources such as cars and trucks. They believe it's possible the standard will be met sooner than 2014.

PM2.5 comes from windblown dust, fires, construction, farming and industry. It also can form out of chemicals emitted by cars and trucks.

Other aspects of the plan that could affect you:

» It relies on a state law that will ban open burning in most cases by 2010.

» It offers incentives to replace old wood stoves and fireplaces.

» It relies on a state plan to tighten smog checks, including more-stringent pass/fail criteria and annual inspections for older cars.

The plan says district officials eventually might consider restricting or limiting fireworks in areas where they are legal. Last year, particulate matter readings soared in some areas from 9 p.m. July 4 to 1 a.m. July 5, Hunsaker said.

"We want to look into ways we can prevent future occurrences," he said.

## State bill would expand smog check

By Stacey Shepard, Californian staff writer
Bakersfield Californian, Monday, March 10, 2008

A new bill would require all California vehicles to get smog-checked every two years, leveling the playing field and potentially cleaning local air.

Introduced last week by Assemblywoman Nicole Parra, D-Hanford, AB 2063 would affect vehicle owners in parts of the state where tailpipe inspections are required only when there's a change of ownership.

That's mainly less-populated counties on the state's northern, western and southwest border.

The two-year requirement now applies only in areas of the state prone to poor air quality, including the San Joaquin Valley and Los Angeles and Bay areas.

The smog check program was started in 1984 to ensure emission controls functioned property on vehicles in areas with poor quality.

The change would level the playing field among consumers and help local air quality by reducing exhaust pollution that drifts in from other parts of the state, said Derek Chernow, Parra's chief of staff.

"Bad air doesn't stay in one place," Chernow said.

About 880,000 of the state's 33 million vehicles would be impacted, according to a fact sheet on the bill.

"It would have some positive impact on our region but we can't quantify it," said Seyed Sadredin, executive director of the San Joaquin Valley Air Pollution Control District.

Sadredin said air regulators long believed only a small amount of valley pollution came from other areas but that has since changed.

Satellite images of smoke clouds from several wildfires around the state last summer showed smoke from the north, south and west drifting into the valley. The photos prompted air regulators to embark on a study to reassess earlier figures on pollution drift.

## Council seeks delay in county's West Park decision

**Two sides of the short-haul tracks**

Written by John Saiz
Patterson Irrigator, Friday, March 7, 2008

1. The Patterson City Council hopes a decision regarding the lead developer for the Crows Landing Air Facility will be delayed until after a state decision about transportation bond money.
2. Gerry Kamilos, head of the West Park development team, says a decision can go ahead because his group's project will be in good position with or without the grant money.

The county's April 8 decision to either drop or stick with PCCP West Park as the lead developer for the Crows Landing Air Facility should be delayed, the Patterson City Council declared Tuesday.

Whether the Stanislaus County Board of Supervisors will listen to the council's advice is another matter. But county CEO Rick Robinson plans to ask for the delay at the supervisors' March 18 meeting.

"It's a reasonable request," Robinson said.

The supervisors are scheduled to decide April 8 whether they will remain in exclusive negotiations with West Park, which has proposed to turn the county-owned Crows Landing Air Facility and thousands of acres of surrounding farmland into an industrial center.

About two days after that, the California Transportation Commission will decide if West Park gets $26 million in public money to carry out its plans.

“Any decision to award the project prior to the (commission’s) decision would be premature,” states a letter from the Patterson council to supervisors.

Lead developer Gerry Kamilos says West Park would be fine regardless of what the transportation commission decides. In case it doesn’t grant the developer any money, Kamilos said, he has a Plan B - but he would not disclose any details.

If supervisors decide to stay with West Park as a lead developer, the board and the developer will enter their second exclusive negotiating period. West Park would have about a year to complete an environmental review, which will describe in detail what the project will be.

If supervisors opt to drop West Park, they will seek other developers to build up the facility.

So far, West Park’s preliminary plans are to build a 7.5-square-mile industrial center on and around the county-owned former U.S. Navy airfield near Crows Landing. The center would be connected to the Port of Oakland via rail.

Kamilos estimates the project would be built out in about 30 years, at which time about 37,000 people would work there, about 147,167 vehicles would travel to and from the park each day and six trains would make daily round trips through Patterson.

The Patterson City Council has been a consistent critic of the project since it was proposed more than a year ago. Members claim it would spoil local air quality, cause massive traffic backups and pave over vast tracts of farmland.

The council would prefer a project that would develop only the 1,527-acre base.

Even as the council lobbies supervisors to drop West Park, it has also advised the state transportation commission not to award money to West Park.

On Feb. 22, the council sent City Attorney George Logan to a transportation commission meeting in Fresno, where he detailed nearly 20 reasons the city feels that West Park should not qualify for public funding, including local opposition, increased traffic and inadequate matching funds.

To qualify for transportation commission funding, according to the state, projects must put up money to match any state grants given to the project. In the case of West Park, the county has put up the land value of 170 acres at the airfield as an in-kind contribution in lieu of developers paying the entire $26 million in cash.

“The guidelines call for matching funds, not ‘in kind’ contributions, much less anything so worthless as a defunct air station lease of questionable value,” Logan wrote in a statement to the commission.

At least one supervisor is willing to delay the decision. Jim DeMartini, who represents the West Side on the board and has also been a consistent critic of West Park, said he would vote to put off a firm decision on the developer.

## Tulare County air quality dips

Staff reports
Visalia Times-Delta and Tulare Advance-Register, Sunday, March 9, 2008

Tulare County air is forecasted at unhealthy levels through the weekend.

The San Joaquin Valley Air Pollution Control District rates Saturday’s air at 112, and Sunday’s at 122. Ratings from 101 to 150 are considered unhealthy for sensitive groups.

Kern County is rated the same.

All other Valley counties are forecast to have good to moderate air quality.

More information: <<http://www.valleyair.org>>

## Biofuels Co. Spins Off Cellulosic Unit - Pilot Plant in Works for Visalia

Valley Voice Newspaper, Monday, March 10, 2008

Visalia - California-based Altra Biofuels is spinning off projects well underway that are dedicated to making biofuels, using cellulosic materials and techniques. The new firm, EdenIQ, Incorporated in Delaware, will be taking over several projects underway around the nation, including projects in Oregon and in Visalia.

EdenIQ spokesman Will Gardenswartz confirmed the division of the companies, noting, "Altra will stay focused on production of ethanol here and now while EdenIQ will concentrate its efforts on cellulosic research that could pay off years from now."

In Visalia, EdenIQ is working on building a pilot plan that would make ethanol from waste products or non-food crops. The company expects help from the Department of Energy to complete promising research underway that sources call "breakthrough" techniques that will lower the cost of making ethanol used for motor fuel.

The move comes as debate rages over impacts of the rapid rise of the ethanol industry that uses corn as its feedstock - which has been criticized for helping to raise food prices around the world. The high price of corn, told now over $5.50 per bushel, is also making the economics of producing ethanol from corn less than attractive. Some say "the boom is turning to bust."

The price of ethanol sold in the U.S. has not increased as corn prices have skyrocketed, prompting a slowdown in the pace of new ethanol plants heading to construction.

Runaway corn prices have forced as many as 50 new ethanol plants to shelve their plans for new plants as financing has dried up, says an investment banker in Fortune this week. Low margins have hurt the stock price of corn-based ethanol producers like Pacific Ethanol and Verasun, even as Congress has passed legislation that increases the amount of ethanol that must be blended with gasoline in the future. The energy bill caps the amount that will be produced using corn and provides an incentive for growth in the fuel made from green plants - cellulose.

As corn has doubled in price in the past year, the price of ethanol has actually declined from about $2.50 a gallon to $2.15 today, even as gasoline prices have doubled. Go figure.

The poor profit picture for corn-based ethanol may be one reason California's first ethanol plant - in Goshen, owned by Altra (PHOENIX Bio Industries), has not produced any ethanol since last fall - although the mothballing of the plant is said to be also due in part over a dispute between Altra and Western Milling nextdoor over corn deliveries.

Since ethanol companies live and die on rising capital in a race with several other firms to make cellulosic-based ethanol more cheaply, the spinoff sets aside the low returns now being seen for corn-based ethanol products as well as the debate over the wisdom of corn to make ethanol.

Instead, EdenIQ can focus on plant mass that can be turned into sugar from the woody part of the plant - the cellulose - virtually any waste product that grew or even cow manure that contains grain chewed up by the cow. Experimentation with switchgrass, wood chips, corn stover or dedicated energy crops like sorghum, canola, and hybrid poplar trees are being researched. New enzymes have the potential to unlock the sugars in this biomass likely making it possible to produce ethanol far more cheaply long-term than using corn. With some estimates suggesting the biofuel could be made for cents per gallon in the future and be far "greener," the process won't require large amounts of carbon inputs (fertilizer and other oil based products) to make the fuel and not disrupt world food supplies.

In Visalia, EdenIQ is experimenting at its Visalia Industrial Park facility on large batches of cellulose-based ethanol. The company also owns 100 acres across Highway 99 from its property and plans to work with the county to build a plant there after completion of an EIR.

Gardenswartz says EdenIQ will be headquartered in Visalia. "Our Visalia Industrial Park operation will be the cellulosic lab shared by a small team of scientists," he says. He points to the widespread ag resource base in the area that can be used in the future to make cellulosic ethanol.

Tulare County is considered a great place to experiment on crops and biomass as a feedstock for making the green fuel because so much of the state's crop comes from here. A presentation for the World Ag Expo last month points to the fact that about half the ag wealth produced in California comes from an area within a 100-mile radius of the Tulare farm show.

In Oregon, EdenIQ has taken over the lease from Altra of a 34-acre Port of Morrow site next to Pacific Ethanol's plant site there, according to published reports.

EdenIQ isn't the only firm looking at turning waste products grown in the Central Valley into biofuels. Sunkist announced last month it was working with a company to turn Sunkist citrus peel at its Tipton plant into biofuel and expects a deal to be announced in a matter of weeks. In addition, Pacific Ethanol received a grant from the Department of Energy to work on the cellulose-based project in Oregon.

He says EdenIQ is a play on words combining intelligence and the image of a Garden of Eden, suggesting the natural world with wise use can provide the basis for the energy needs of the future.

## Air Monitor Sought for El Tejon School

By Linda MacKay
The Mountain Enterprise, Friday, March 7, 2008

*The Mountain Communities Town Council has written a letter to the executive director of the San Joaquin Valley Air Pollution Control District to request a monitor to measure the health of air along the Interstate 5 near El Tejon School. This is an excerpt:*

The Mountain Communities Town Council and the other community organizations that have agreed to sign onto this letter are concerned about the air quality in our region. We are especially concerned about the air quality at one of our communities' local schools.

This school is the El Tejon Middle School site.... The Mountain Communities Town Council and other community groups would like the air district's assistance to get specific data on what the students and the staff at this school site are exposed to while in the classrooms and out on the playground areas.

...[T]he California Air Resources Board had a mobile air monitoring unit at a site in Lebec from February of 2006 to March of 2007. The ozone and PM 2.5 [particulate matter- Editor] measurements at that site were at unhealthy levels for several days during that time period. The number of violations exceeded many monitors' readings in the San Joaquin Valley and the South Coast air basins.

The...community organizations are very concerned that ozone, carbon monoxide, toxic diesel soot, and other vehicular emissions could be at even higher and more dangerous levels at the middle school site. This is because the school sits at a lower elevation point, it is directly adjacent to I-5 and could potentially receive more of the pollution rising up from the San Joaquin Valley. Also there is concern that the emissions from the vehicles on the freeway have less chance to dissipate because the school is enclosed on the east and west sides by mountain hillsides.

The concern is that pollution may be contained and concentrated at the school.

Our mountain communities' residents have only recently been educating themselves on the potential dangers of having a school so close to a major freeway. Now that we are more aware of the dangers we feel it prudent for us to find out exactly what the numbers are.

There is a potential site at the middle school available for a permanent air monitor. The school district lacks the resources to purchase or maintain an air monitor, but they have recently voted to support the town council's efforts to place a monitor in the Lebec region. We respectfully request that the District provide and maintain a monitor to measure levels of ozone, carbon monoxide, PM2.5, and whatever parameter would best measure diesel soot.

We understand that our community does not meet your agency's usual criteria for placing an air monitor, but due to the disproportionate amount of pollution to which our school is exposed, and the lack of a high elevation monitors south of Sequoia National Park, we feel your agency should seriously reconsider our region for a permanent air monitor. There are several planned housing developments for our area which will increase the population of our region exponentially.

As a community, how can we plan for future growth without having baseline data for air quality for one of the potential worst areas within our region? We have a responsibility to know what our children, the elderly and other vulnerable populations within our region are being exposed to before we allow more growth and potentially more pollution.

The El Tejon Middle school has a population of approximately 500 students each year. The school offers education to 4th through 8th graders. These children are vulnerable due to their developing lungs and active play outside in the playground area. The school district also allows community soccer and baseball leagues to practice and hold tournaments within the middle school's ball fields year round.

We need data to help us understand how much we're being impacted...[T]raffic on Interstate 5 will only increase with time and Interstate 5 is the most significant goods movement corridor in California. Our community should receive a permanent air monitor at the school site to help our school district and mountain communities understand the facts and make informed decisions...We feel confident that a monitor in our region will not only give our communities helpful information, but also provide valuable data for your agency as it strives to deliver air quality that meets state and federal health-based standards."

The letter is signed by MCTC president Eric Anderson, Boy Scout Troop 27, Pinon Pines Homeowners Association, AARP Chapter #2915, Boys & Girls Club of Frazier Mountain, Clinica Sierra Vista of Lebec, Our Lady of the Snows Catholic Church, Pine Mountain Club Condor Group of the Sierra Club, with copies to Jack O'Connell, California Superintendent of Instruction, Mary D. Nichols, chair of the California Air Resources Board and The Mountain Enterprise.

## SoCal air regulators pass new restrictions on home fireplaces

By Mark Grossi - Fresno Bee
In the Modesto Bee, Sacramento Bee and other papers, Saturday, March 8, 2008

LOS ANGELES - Television images of cozy fireplaces will often have to do next winter after air pollution regulators imposed restrictions limiting the use of wood-burning fireplaces in Southern California.

Under new regulations passed Friday by the South Coast Air Quality Management District, homeowners who burn wood in fireplaces on bad air days will face fines of up to $500. Builders will be banned from installing wood-burning fireplaces in new homes, although they can install gas-burning fireplaces, and stores can only sell clean-burning grades of wood.

Burning trash in fireplaces is prohibited.

Regulators said the "Healthy Hearths" initiative will help the air district meet a 2017 deadline to bring particle pollution levels down to healthy levels.

The AQMD has jurisdiction over Orange County, most of Los Angeles County and the western portions of Riverside and San Bernardino counties. It estimates that the 1.4 million fireplaces used in its district emit an average six tons a day of particulate soot - four times the amount produced by all of the power plants in the region.

The winter wood-burning ban will apply in areas where forecasts show federal daily limits for fine particulate matter will be exceeded. That will amount to about two dozen days from November to March each year, regulators said.

Similar rules are already in place in the San Joaquin Valley and the Sacramento area, and San Francisco Bay area air regulators have proposed wood burning rules.

Critics say the rules invade their rights at home.

"This is personal for a lot of people," said Burten Carraher, who builds custom fireplaces and chimneys. "Fireplaces are not used that often in Los Angeles. But for people who do, it's a place of comfort."

District executive director Barry Wallerstein called the regulations a "fair trade-off."

"This is about trading personal rights for cleaner air and public health," he said.

## Politicians in Bay Area line up to support clean-air bill

Josh Richman
Tri-Valley Herald, Monday, March 10, 2008

Most members of the Bay Area's House delegation are among original cosponsors of the Right to Clean Vehicles Act, a bill introduced Thursday that would force the Environmental Protection Agency to grant a waiver giving California and 12 other states the ability to implement limits on greenhouse-gas emissions from cars.

The bill - drafted by Reps. Brad Sherman, D-Sherman Oaks, and Peter Welch, D-Vt. - comes in reaction to EPA Administrator Steve Johnson's December denial of California's waiver, reportedly even over his own staff's objections.

Sen. Barbara Boxer, D-Calif., already has introduced an equivalent Senate bill, and as chair of the Senate Environment and Public Works Committee, raked Johnson over the coals in a Capitol Hill hearing.

Rep. Barbara Lee, D-Oakland, issued a news release expressing her support for the House bill.

"There is simply no excuse for the Bush administration to deny California's waiver, or any other state's effort to combat global warming and promote the use of cleaner, more efficient vehicles on their roads," she said. "The Right to Clean Vehicles Act will give a much-needed green light to states taking the right approach to achieving a greener future and I am proud to support it."

Besides Lee, the bill's 58 original cosponsors include Reps. Dennis Cardoza, D-Atwater; Anna Eshoo, D-Palo Alto; Mike Honda, D-San Jose; Zoe Lofgren, D-San Jose; George Miller, D-Martinez; Pete Stark, D-Fremont; Ellen Tauscher, D-Alamo; and Lynn Woolsey, D-Petaluma.

Rep. Jerry McNerney, D-Pleasanton, wasn't listed among the original cosponsors in Sherman's news release, but spokesman Andy Stone just told me McNerney fully supports it as well - he just hadn't had time to fully review it and sign on before the authors went public today, but should be listed among the cosponsors by next week. March 6

Melanie Morgan - the just-laid-off conservative radio talk-show host and chairwoman of the grass-roots conservative group Move America Forward will spend Thursday at Berkeley's U.S. Marine Corps recruiting center on Shattuck Avenue and Mayor Tom Bates' office, demanding that the recruiting office be protected in the wake of the bombing of a similar station early this morning in New York City's Times Square.

"Mayor Bates and the Berkeley City Council called upon citizens to impede the work of military recruiters in conjunction with CodePink. Now we see that violence is a part of the effort by some to shut down military recruiting centers," Morgan said in a news release. "Mayor Bates, you share plenty of blame for the escalation of hostility toward our military men and women and it's time for you to stand up, apologize for your action, and call upon all citizens to stand in support of the work of military recruiters. These people are our sons and daughters, husbands and wives, and they deserve better treatment from people like you."

Nobody was hurt in the 3:45 a.m. EST bombing in New York, but the Associated Press reports "(t)he blast left a gaping hole in the front window and shattered a glass door, twisting and blackening its metal frame." The Army, Navy, Air Force and Marines all use that office as a recruiting station, the AP says, and "(f)or a half century, the station was the armed forces' busiest

recruiting center. It has set national records for enlistment, averaging about 10,000 volunteers a year."

Medea Benjamin, cofounder of CodePink - which has helped spearhead months of protest outside Berkeley's Marine recruiting station and helped convince Berkeley City Council to talk smack about the recruiters as well - told me just now that her organization is entirely nonviolent; "condemns any kind of violence including what happened at the recruiting station in New York;" and finds Morgan's demands "ridiculous."

"We've been protesting outside that Marine recruiting station every day since September and there's never been an incident. The most dangerous it gets is if someone falls over during our free yoga class," Benjamin said. "It's as peaceful as Berkeley can be and there's no need for extra protection."

Anyone could've bombed the New York site for any reason, she noted. "We may never know, but just because there's one incident at one recruiting station out of the many thousands that there are all over the country doesn't mean there's any danger to Berkeley.

"Melanie Morgan, now that she doesn't have her talk show, should take up something useful like knitting," Benjamin jabbed, rather than "trying to use this as a way to stir up more division in Berkeley."

## Study Finds Airborne Contaminants in Sequoia National Park

Valley Voice Newspaper, Monday, March 10, 2008

*Sequoia National Park* - A six-year study has found traces of currently used and banned-for-decades pesticides and herbicides in two lakes in Sequoia National Park east of Visalia.

"Troubling, but not necessarily surprised," said Annie Esperanza, an air quality specialist with Sequoia National Park, of the findings. "We've seen air samples captured that contain pesticides in the past," she added.

The National Park Service last week released results from the six-year, multi-agency study about airborne contaminants in eight western national parks, including Sequoia. The study involved intensive work in Sequoia National Park; Mount Rainier and Olympic in Washington State; Rocky Mountain in Colorado; Glacier in Montana; and Denali, Gates of the Arctic, and Noatak in Alaska. Twelve additional western park areas were sampled less intensively.

Esperanza said the study confirmed what park officials suspected more than a year ago, that there are contaminants coming from other countries and continents. She said last year the Voice was the first to report that pesticides and other contaminants were showing up in the local national parks.

What surprised Esperanza, was that Sequoia National Park had the highest levels of contaminants when it was thought the parks further north had a bigger problem.

"I was hopeful that this far south was not as impacted as up north. Unfortunately, we came out to be one of the highest," she said. "These containments are definitely coming from out of the country."

In Sequoia National Park, researchers found three contaminants that are known to be harmful to humans, but not in amounts that pose a threat. The study found traces of mercury, dieldrin, and DDT.

DDT (dichlorodiphenyltrichloroethane) is an insecticide banned in the U.S. since 1972. It reduces reproductive success and was found not only deep in the lake sediments, but also in fish, vegetation the water and even the snow.

Mercury is a heavy metal emitted by processes such as burning coal for electricity and can cause neurological and reproductive impairment. Dieldrin is an acutely toxic insecticide banned from use in the U.S. since 1987, decreases the effectiveness of the immune system.

The samples were taken from Pear and Emerald lakes (9,541 and 9,219 feet in elevation, respectively), with additional measurements taken along the elevation gradient from Ash Mountain (in the foothills at 1,650 feet) to Pear Lake. Samples were taken from snow, fish, water, lake sediment, lichens, other vegetation and passive air samplers.

At Sequoia National Park, air, vegetation, and snow had among the highest concentrations for current-use pesticides, compared with the air, vegetation and snow samples from the other parks studied.

The results indicate that numerous pesticides that are in current use, as well as some that have been banned in the United States, are detectable at measurable levels. It is not well understood whether these findings are representative of other high elevation lakes in Sequoia and Kings Canyon National Parks.

The risk from these contaminants to people is considered low and varies with the amount of fish consumed from these lakes. Park managers plan to add a statement to park wilderness information to suggest that visitors limit consumption of fish caught in high Sierra lakes and that they remove the skin, fat, and internal organs where pollutants are most likely to accumulate, before cooking.

Esperanza said contrary to earlier reports, the hazard is minimal. "The only threat would be a consumption of fish over a lifetime," she said.

Dieldrin was found in the sediment cores from the lakes. "When you core the lake, it's like a history base, likes rings on a tree, explained Esperanza. Because the chemical has been banned for more than two decades, she is certain that it made its way into the park via the jet stream from another continent where it is still allowed.

However, the chemical was found in sediment cores that date back to when it was allowed, and "some point to more recent deposition which then there is suspicion it has to be coming from somewhere outside the U.S.," she said.

She added the lakes are not downstream of anything, meaning the contaminating had to be "atmospheric."

"There is some good news. When we looked at those cores, over time the level of DDT decreased. So the ban of pesticides has definitely showed some positive responses because over time there should be less and less of that particular chemical."

She added the quality of lakes is still good. "To the human eye, they look pristine," she said. "They're thriving with fish. It's when you look closer."

However, finding the traces of pesticides in the snow shows the chemicals are still being used somewhere in the world and residue is finding itself into the airstream.

Esperanza explained that such chemicals travel easily, especially mercury. "You can have it literally go all the way around the globe. China and other Asian countries are first suspects, but it could come from anywhere," she said.

The study also found traces of an insecticide and an herbicide being used today, but amounts were small and for now they do not pose a health issue. Found were concentrations of edosulfan, dacthal, HCH, HCB and chlorpyrifous. Suspicions are those chemicals are making their way into the high Sierra from the Central Valley farming region.

The solution: Action. "This is one of those things where information is going to help. Everything we do, whether we're hundreds of miles away or thousands of miles away, it has an effect. It's all very dynamic," she said.

It has been known for many years that Sequoia Park has some of the worst air quality of any park in the nation. It has the highest level of ozone and Esperanza said initial studies are finding traces of nitrogen in the air of the park. "When you throw in nitrogen, it changes the aquatic ecosystem," she said. That study's findings are still a few years away.

"Another study being done is looking at pesticides and their impacts on amphibians. That report may be out with next 12-24 months," she said.

"This is a big challenge for us. We have to work outside the park when it comes to protecting things from outside the park when it comes to air pollution," said, explaining that the park's location, its topography, the climate and the human activities in the Valley all combine to create the pollution in the park.

## Calif Train Derailment Evacuees Return

The Associated Press
Washington Post, Friday, March 7, 2008

MECCA, Calif. -- Sixty people who had to leave their homes after a train derailment pumped toxic fumes into the air earlier this week were allowed to return on Friday.

Hazardous material crews had neutralized and removed most of the soil contaminated when a 65-car train derailed and spilled toxic phosphoric and hydrochloric acid on Monday near the community 140 miles southeast of Los Angeles, Riverside County fire Capt. Fernando Herrera said.

Air quality readings indicated no hazardous vapors.

Herrera said a five-mile stretch of Highway 111, plus some roads, would remain closed until the cleanup was fully complete.

Union Pacific opened up the railway Friday morning after conducting a stability check on the tracks.

The cause of the accident was under investigation.

## Beijing Tries to Ease Olympic Discomfort

By Charles Hutzler, AP
Washington Post, Saturday, March 8, 2008

BEIJING -- Beijing will compensate car owners barred from driving on city streets during the Olympics and will not totally ban migrants, state media reported Saturday, in signs the government wants to take some of the sting out of restrictions planned for the August games.

The government is working on a compensation scheme for car owners during the Games when private cars will be restricted to driving every other day, newspapers and television reports said, citing remarks by Vice Mayor Ji Lin.

Ji acknowledged that the city was tightening controls on the swarms of rural migrants in China's capital by stepping up inspections of the permits residents are supposed to have.

But "during the Beijing Olympics we will absolutely not restrict outsiders from entering the capital," Ji was quoted as saying at a legislative meeting Friday.

The measures, Ji said, are intended to help Beijing clear away air pollution and traffic congestion among the thorniest logistical problems Beijing confronts in hosting the games.

Beijing ranks among China's most polluted cities and is regularly shrouded in a brown smog made worse by swelling ranks of private cars and a metropolitan area population that has soared to 17 million. With only five months before the August 8 opening, Beijing is under pressure from athletes and the International Olympic Committee to drastically improve air quality.

At the same time, Beijing's efforts to soften the Olympic restrictions show how carefully the authoritarian communist government must tread as people grow wealthier and more aware of their rights.

Private cars account for an increasing share of Beijing's 3.3 million vehicles, most of them bought in the past five years by a rapidly rising middle class.

## Gebrselassie Could Miss Olympic Marathon

By Raf Casert, AP
Washington Post, Monday, March 10, 2008

VALENCIA, Spain -- World record holder Haile Gebrselassie is almost certain to miss the marathon at the Beijing Olympics because of the city's poor air quality.

The Ethiopian, who has asthma, fears damage to his health by running through the streets of the Chinese capital. The 34-year-old Gebrselassie would be a gold medal favorite if he did take part.

"That is not yet decided," Gebrselassie said.

Gebrselassie will make a final decision after the Hengelo meet on May 24 in the Netherlands, when he finds out if he has qualified for the 10,000-meter race in Beijing, his agent Jos Hermens said in a telephone interview Monday.

Gebrselassie already has two Olympic titles in the 10,000.

High temperatures could also be a problem in the marathon for Gebrselassie, Hermens said.

"Haile wants to do everything possible for his country," Hermens said. "With three Ethiopians, they could get gold, silver and bronze."

Concerns about Beijing's pollution have dominated preparations for the games.

Gebrselassie has had problems with his lungs in the past and is known to have a pollen allergy. Hermens said many racers who have performed in damaging conditions have never returned to their best.

"It may be 1 or 2 percent (damage), but that means a lot for such an athlete," Hermens said. "And if you look deep into his heart, he wants another marathon record."

Gebrselassie's record is 2 hours, 4 minutes, 26 seconds.

He also wants to keep running until the 2012 London Games, where the climate would better suit him.

After winning the 10,000 at the 1996 Atlanta Olympics and 2000 Sydney Games, Gebrselassie finished fifth in Athens in 2004 in a race won by teammate Kenenisa Bekele.

The marathon has a special reputation in Ethiopia since barefoot runner Abebe Bikila won the 1960 Rome marathon and repeated the feat, with shoes, in Tokyo four years later.

Gebrselassie also has four 10,000 world championship titles and has broken two dozen world records.

Because of pollution problems, many countries have based their training camps outside of China before the Olympics begin on Aug. 8.

## Bacterium Gets Wheels Turning on Ethanol Fuel

By Susan Kinzie and David A. Fahrenthold
Washington Post, Monday, March 10, 2008

A strain of bacteria accidentally found in the Chesapeake Bay more than 20 years ago -- a bug that decomposes everything from algae to newspapers to crab shells -- could help produce cheaper fuel, according to scientists at the University of Maryland.

Gov. Martin O'Malley (D) will tout the work of professors Steven Hutcheson and Ronald Weiner on campus today in announcing that Zymetis, a U-Md. spinoff company, will use the organism to generate ethanol.

The hope is that the bacterium can be used to produce ethanol more efficiently and inexpensively and in effect recycle junk into energy. The bacterium, which is very difficult to find in nature but easily reproduced in the lab, has turned bench scientists into entrepreneurs.

It's a remarkable bug, Hutcheson said. "There's nothing out there that compares to it."

With environmental, economic and geopolitical reasons to find alternatives to gasoline, there's a sense of urgency behind scientists' drive to make cheap fuels out of such plants as grasses and wood. Other scientists said that the U-Md. research might mark a significant step in that struggle but that it was difficult to judge the discovery in detail without more information.

Ethanol is, essentially, fermented plant matter: Parts of the plants are broken down into sugar, which is converted into a kind of alcohol that is usable as fuel. For now, most U.S. ethanol is made from corn, but scientists want a source that isn't also sought after for food.

They are now seeking to make fuel out of such things as wood chips, cornstalks and a prairie plant called switch grass. But the fuel in these plants is locked up chemically in such substances as cellulose, which nature has engineered not to break down, unlike the starches in grains.

"That's the reason why you eat bread but you build houses out of wood," said Philip Pienkos of the U.S. Department of Energy's National Renewable Energy Laboratory.

That's where this bug comes in. The bacterium *Saccarophagus degradans*, or sugar eater, can create a mix of enzymes that degrades plant matter. It has the largest known concentration of enzymes that eat carbohydrates, Hutcheson said.

"It basically is the ultimate bottom feeder," said Jonathan Dinman, an associate professor of cell biology and molecular genetics at U-Md. "It eats what nobody else will eat -- cornstalks, leftover chaff from hay or whatever -- and can turn that into ethanol."

Some researchers now use a pretreatment that softens the plants, then another treatment to turn cellulose into sugar, then a fermentation that turns the sugar into alcohol. Several scientists said that if the U-Md. research could make this process faster and more efficient, it could produce serious savings.

"If this guy's got the answer to it, heck, yeah," it would be the product of the year, said Mark E. Downing, of the Department of Energy's Oak Ridge National Laboratory in Oak Ridge, Tenn.

But Bruce E. Dale, a professor of chemical engineering at Michigan State University, said he wondered how much difference one bacterium could make. "There's never been, to my knowledge, a microorganism that, without help [from scientists] . . . can break down cell walls completely and rapidly," Dale said.

If such an organism existed, he said, plants would probably have found a way to defend themselves. "If there's organisms out in the world doing that," they would be "turning all the trees into puddles."

The bacterium isn't a parasite or a plant pathogen, Weiner said, adding that research has shown it attacks only dead organic matter. It was found in the mid-1980s by scientists at George Mason University looking for the organism killing wild grass.

In the lab, most people just call it 240 -- not for the Maryland area code, but because it was the 40th sample isolated on a researcher's second day in the salt marsh.

The bug interested a scientist at George Mason, and at a conference in the late 1980s, Weiner, who happened to sit next to him, was invited to collaborate.

The other scientist soon moved on, but Weiner was hooked. "It was unique. It was the first marine bacterium shown to degrade woody material. . . . How does CO2. . . go from a complex carbohydrate in the ocean to atmospheric CO2? . . . It was a whole missing link. This organism was absolutely the first and remains the paradigm for how that occurs."

It was obvious, too, that it had tremendous ability to degrade all kinds of complex carbohydrates. "I started off fascinated with it," Weiner said, "and the more we studied it, the more fascinated we got."

In about 2000, Hutcheson joined the department and began working on 240. He drove to the salt marsh, a stretch of ecological preserve in Mathews County, Va., to try to isolate more samples of the bacterium.

In more than a dozen tries, the researchers haven't been able to.

With the help of the Energy Department, they got its genome sequenced. Weiner worked almost straight through a few nights because he was so excited when the data came back. "That was a breakthrough," said Larry Taylor, then a doctoral student in the lab and now at the National Renewable Energy Laboratory.

A few years ago, Weiner decided to step away from the theoretical and try an informal experiment: He snipped branches off a bunch of his wife's houseplants and put the clusters of leaves into glass flasks with 240. In other flasks, he combined 240 with newspaper or magazine pages. Then he had a group of 10 control flasks with just the bacteria.

He came back to the lab after the holidays -- a week, maybe 10 days later, and burst out, "Who the devil took our flasks?"

He looked again and counted. There were 20 there, but they all looked empty. "The plant matter had all disappeared," he said. "I never anticipated the organism would be that efficient. That's when we knew the organism not only did things in microculture but had the potential to be useful on a grander scale."

They had always known the research could one day be helpful for making ethanol, but the more they found out, Hutcheson said, the more possible -- and compelling -- the practical applications began to seem. And when he watched President Bush talk about alternative fuels in the State of the Union speech a couple of years ago, he almost fell out of his seat, he recalled. He began to put together the company through the Technology Advancement Program at U-Md.

About a year ago, Dinman joined them to help bump up the fuel yields they get from sugars using genetically engineered yeast. "Yeast has been used to make ethanol since the first caveman got a buzz off of fermenting berries," he said.

There are still a lot of hurdles, Dinman said. There is plenty of competition, too. Weiner said the big question is whether it can be cost-competitive; Hutcheson said they reduced production costs 20-fold in less than a year.

Hutcheson hopes to have the pilot plant running this summer. And when he gets a chance, he'll go back to the marsh. He's still looking for 240.

## Carbon Output Must Near Zero To Avert Danger, New Studies Say

By Juliet Eilperin
Washington Post, Monday, March 10, 2008

The task of cutting greenhouse gas emissions enough to avert a dangerous rise in global temperatures may be far more difficult than previous research suggested, say scientists who have just published studies indicating that it would require the world to cease carbon emissions altogether within a matter of decades.

Their findings, published in separate journals over the past few weeks, suggest that both industrialized and developing nations must wean themselves off fossil fuels by as early as mid-century in order to prevent warming that could change precipitation patterns and dry up sources of water worldwide.

Using advanced computer models to factor in deep-sea warming and other aspects of the carbon cycle that naturally creates and removes carbon dioxide ($CO_2$), the scientists, from countries including the United States, Canada and Germany, are delivering a simple message: The world must bring carbon emissions down to near zero to keep temperatures from rising further.

"The question is, what if we don't want the Earth to warm anymore?" asked Carnegie Institution senior scientist Ken Caldeira, co-author of a paper published last week in the journal Geophysical

Research Letters. "The answer implies a much more radical change to our energy system than people are thinking about."

Although many nations have been pledging steps to curb emissions for nearly a decade, the world's output of carbon from human activities totals about 10 billion tons a year and has been steadily rising.

For now, at least, a goal of zero emissions appears well beyond the reach of politicians here and abroad. U.S. leaders are just beginning to grapple with setting any mandatory limit on greenhouse gases. The Senate is poised to vote in June on legislation that would reduce U.S. emissions by 70 percent by 2050; the two Democratic senators running for president, Hillary Rodham Clinton (N.Y.) and Barack Obama (Ill.), back an 80 percent cut. The Republican presidential nominee, Sen. John McCain (Ariz.), supports a 60 percent reduction by mid-century.

Sen. Barbara Boxer (D-Calif.), who is shepherding climate legislation through the Senate as chairman of the Environment and Public Works Committee, said the new findings "make it clear we must act now to address global warming."

"It won't be easy, given the makeup of the Senate, but the science is compelling," she said. "It is hard for me to see how my colleagues can duck this issue and live with themselves."

James L. Connaughton, who chairs the White House Council on Environmental Quality, offered a more guarded reaction, saying the idea that "ultimately you need to get to net-zero emissions" is "something we've heard before." When it comes to tackling such a daunting environmental and technological problem, he added: "We've done this kind of thing before. We will do it again. It will just take a sufficient amount of time."

Until now, scientists and policymakers have generally described the problem in terms of halting the buildup of carbon in the atmosphere. The United Nations' Framework Convention on Climate Change framed the question that way two decades ago, and many experts talk of limiting CO2concentrations to 450 parts per million (ppm).

But Caldeira and Oregon State University professor Andreas Schmittner now argue that it makes more sense to focus on a temperature threshold as a better marker of when the planet will experience severe climate disruptions. The Earth has already warmed by 0.76 degrees Celsius (nearly 1.4 degrees Fahrenheit) above pre-industrial levels. Most scientists warn that a temperature rise of 2 degrees Celsius (3.6 degrees Fahrenheit) could have serious consequences.

Schmittner, lead author of a Feb. 14 article in the journal Global Biogeochemical Cycles, said his modeling indicates that if global emissions continue on a "business as usual" path for the rest of the century, the Earth will warm by 7.2 degrees Fahrenheit by 2100. If emissions do not drop to zero until 2300, he calculated, the temperature rise at that point would be more than 15 degrees Fahrenheit.

"This is tremendous," Schmittner said. "I was struck by the fact that the warming continues much longer even after emissions have declined. . . . Our actions right now will have consequences for many, many generations. Not just for a hundred years, but thousands of years."

While natural cycles remove roughly half of human-emitted carbon dioxide from the atmosphere within a hundred years, a significant portion persists for thousands of years. Some of this carbon triggers deep-sea warming, which keeps raising the global average temperature even after emissions halt.

Researchers have predicted for a long time that warming will persist even after the world's carbon emissions start to fall and that countries will have to dramatically curb their carbon output in order to avert severe climate change. Last year's report of the U.N. Intergovernmental Panel on Climate Change said industrialized nations would have to cut emissions 80 to 95 percent by 2050 to limit CO2concentrations to the 450 ppm goal, and the world as a whole would have to reduce emissions by 50 to 80 percent.

European Union Environment Commissioner Stavros Dimas, in Washington last week for meetings with administration officials, said he and his colleagues are operating on the assumption that developed nations must cut emissions 60 to 80 percent by mid-century, with an overall global reduction of 50 percent. "If that is not enough, common sense is that we would not let the planet be destroyed," he said.

The two new studies outline the challenge in greater detail, and on a longer time scale, than many earlier studies. Schmittner's study, for example, projects how the Earth will warm for the next 2,000 years.

But some climate researchers who back major greenhouse gas reductions said it is unrealistic to expect policymakers to think in terms of such vast time scales.

"People aren't reducing emissions at all, let alone debating whether 88 percent or 99 percent is sufficient," said Gavin A. Schmidt, of NASA's Goddard Institute for Space Studies. "It's like you're starting off on a road trip from New York to California, and before you even start, you're arguing about where you're going to park at the end."

Brian O'Neill of the National Center for Atmospheric Research emphasized that some uncertainties surround the strength of the natural carbon cycle and the dynamics of ocean warming, which in turn would affect the accuracy of Caldeira's modeling. "Neither of these are known precisely," he said.

Although computer models used by scientists to project changes in the climate have become increasingly powerful, scientists acknowledge that no model is a perfect reflection of the complex dynamics involved and how they will evolve with time.

Still, O'Neill said the modeling "helps clarify thinking about long-term policy goals. If we want to reduce warming to a certain level, there's a fixed amount of carbon we can put into the atmosphere. After that, we can't emit any more, at all."

Caldeira and his colleague, H. Damon Matthews, a geography professor at Concordia University in Montreal, emphasized this point in their paper, concluding that "each unit of CO2emissions must be viewed as leading to quantifiable and essentially permanent climate change on centennial timescales."

Steve Gardiner, a philosophy professor at the University of Washington who studies climate change, said the studies highlight that the argument over global warming "is a classic inter-generational debate, where the short-term benefits of emitting carbon accrue mainly to us and where the dangers of them are largely put off until future generations."

When it comes to deciding how drastically to reduce greenhouse gas emissions, O'Neill said, "in the end, this is a value judgment, it's not a scientific question." The idea of shifting to a carbon-free society, he added, "appears to be technically feasible. The question is whether it's politically feasible or economically feasible."

## Study: Daylight saving boosts energy use

By Dennis Camire, Gannett News Service
USA TODAY, Saturday, March 8, 2008

WASHINGTON - For Benjamin Franklin, daylight saving time was about saving candles and for modern lawmakers, it's about electricity - but a recent university study found it might actually cost more energy when the nation resets its clocks Sunday.

Matthew J. Kotchen, a professor of environmental economics at the University of California in Santa Barbara, and Laura E. Grant, a doctoral student in the same field, studied the effects of daylight saving in Indiana, where some counties used it and others did not. The states changed the law two years ago so that all counties now use daylight saving time.

In an interview, Kotchen said using residential electricity bills for Indiana, he and Grant found that daylight saving time reduced electricity use for lighting but that more was used for air conditioning in the summer and heating in the fall than was saved.

Question: Why was the study done?

Answer: Conventional wisdom and the rationale for daylight saving time has been as an energy saving policy.

The point of the study was to actually evaluate whether it does in fact save energy because there has been surprisingly little research that has looked into that question.

What were the results?

We found based on the natural experiment in Indiana that contrary to the conventional wisdom, daylight saving time ... decreases consumption for artificial illumination but increases consumption for heating and cooling.

The magnitude of our estimate (for increased usage) ranged between 1% and 4%.

In the study, what was the cost of daylight saving time?

The change in costs to Indiana residents in terms of increased electricity demand ... is just over $3 per household per year. Over the whole population, that comes out to $8.6 million a year.

Another element ... is the social (and economic) cost of pollution emissions. Having to generate more energy for electricity means there is going to be more pollution.

We estimate those costs are between $1.6 million and $5.3 million per year in increased pollution costs.

Do the results apply to the whole nation?

Based on places that have similar sunrise and sunset times and climate of Indiana, the same results might apply.

But while this is the effect in Indiana, and we suspect that it is in a lot of other places ... there may be places where daylight saving time actually does save energy.

We're currently working on further research to try to come up with estimates for the nation as a whole.

How was the study conducted?

For several decades, only some counties in Indiana had practiced daylight saving time and a majority had not. Then in 2006, they all turned it on.

We got residential electricity billing statements for over 250,000 households, some in the counties that experienced the policy for the first time and some in the counties that didn't have a change in policy.

In the end, we simply compared the difference between before and after between the two groups, which enabled us to isolate the effect of daylight saving time.

What does the study mean for using daylight saving time?

The immediate thing ... is whether or not we should be continuing to use the energy argument as the reason for why we do daylight saving time.

There are other reasons we might want daylight saving time ... like increased leisure activities. Some people argue it is better for health and it actually stimulates economic growth.

Those are other things that we should want to account for and be part of the discussion.

If we decide that energy is what we care about, we may want to ask what is the best time for having daylight saving time. Maybe the dates we have are not optimal for reducing energy consumption.

## World record holder Gebrselassie almost certain to miss Olympic marathon due to pollution

Associated Press
San Diego Union-Tribune, Monday, March 10, 2008

VALENCIA, Spain - World record holder Haile Gebrselassie is almost certain to miss the marathon at the Beijing Olympics because of the city's poor air quality.

The Ethiopian long distance star, who has asthma, fears damage to his health running through the streets of the Chinese capital. Gebrselassie would be a gold medal favorite if he did take part.

His agent, Jos Hermens, says the athlete will make a final decision after May 24 when he will know if he has qualified for the 10,000 meters at Beijing.

Because of pollution problems, many countries have based their training camps outside China before the Olympics begin Aug. 8.

Fresno Bee Editorial, Monday, March 10, 2008:

## California should go green -- and remain debt-free in doing so

**Find a way to pay for, not finance, greenhouse gas law.**

It has been said that California is operating on borrowed time in responding to the threat of global climate change.

It is also operating on borrowed money.

Over the past two fiscal years, Gov. Arnold Schwarzenegger and lawmakers have been paying for implementation of Assembly Bill 32 -- the state's law to control greenhouse gases -- by taking loans from various unrelated state special funds.

Schwarzenegger is proposing to do so again in 2008-09 -- borrowing $55 million from the state Air Pollution Control Fund, the Proposition 84 water bond, the Public Transportation Account, the Waste Discharge Permit Fund and others.

Officials for the Air Resources Board, which administers AB 32, say these funds will be paid back once the ARB has finished assessing the sources of greenhouse gas emissions in California, and can reliably set fees on the major emitters. In the meantime, the administration is raiding money that should be going to control smog, finance public transit, improve water quality, encourage recycling and other dedicated purposes.

This is unacceptable. If the ARB is to establish quickly a low-carbon fuel standard and explore various market mechanisms and rules for controlling greenhouse gases, it needs a stable source of funding.

Senate Democrats and the Legislative Analyst's Office have rightly criticized the Air Resources Board for not using its statutory authority, under AB 32, to set a fee structure on the largest emitters.

If the air board won't do it, lawmakers should undertake the exercise themselves. Either that, or find another way to pay for the rapid implementation of a law that has helped put the governor's mug on the cover of several national magazines.

Lawmakers should consider resurrecting plans for a severance tax on oil production. Such a tax would raise up to $400 million per year and add California to the long list of oil-producing states that use such severance taxes for public purposes.

Note: The following clip in Spanish discusses EPA announces that it will restrict ozone pollution. For more information on this clip or other Spanish clips, contact Claudia Encinas at (559) 230-5851.

## Anuncia la EPA que restringirá la contaminación con ozono

Noticiero Latino
Radio Bilingüe, Friday, March 7, 2008

La Agencia federal de Protección Ambiental (EPA, en ingles) anunció que dentro de una semana restringirá la contaminación con ozono en el país para beneficiar la salud de los estadunidenses.

La EPA informó además que reducirá sus niveles de aceptación de contaminación, de 80 a 70 partículas de ozono, por cada mil millones de partículas de medio ambiente, en un horario promedio de ocho horas.

Se trata del primer cambio al reglamento nacional de la EPA contra el ozono desde 1997.

En un comunicado la EPA informó que el ozono causa asma, perjudica el sistema respiratorio y complica enfermedades como el enfisema y la bronquitis.

Note: The following clip in Spanish discusses the contrast between San Joaquin and Los Angeles Air Districts.

## Autoridades ambientales en Los Ángeles contrastan con las del Valle de San Joaquín

Noticiero Latino
Radio Bilingüe, Thursday, March 6, 2008
6 de marzo de 2008

Autoridades ambientales en la segunda región con el aire más contaminado en el país, el Valle de San Joaquín, se quejaron esta semana de que el gobierno de California otorgara sólo una cuarta parte del presupuesto que solicitaba, para dar mayores recursos a la zona de Los Ángeles.

En Los Ángeles, la región con la peor contaminación del aire en Estados Unidos, la autoridad ambiental reportó por su parte que el mayor presupuesto que le toca salvará miles de vidas.

California concedió al Valle de San Joaquín 250 millones de dólares, y a Los Ángeles 550 millones en presupuesto.

La directora de la Oficina Administrativa de Calidad del Aire en Los Ángeles, Tonia Reyes Uranga declaró que los fondos evitarán unas mil 200 muertes por contaminación anualmente.

Note: The following clip in Spanish discusses the latest news about the environment.

## Ultimas noticias sobre medio ambiente

NeoFronteras, Thursday, March 6, 2008

Los últimos estudios sobre medio ambiente y cambio climático siguen apuntando a un negro futuro para el planeta Tierra.

Las noticias sobre ecología o cambio climático se acumulan y casi todas son malas. No está demás hacer un repaso a los últimos resultados (los más recientes) en este campo para comprobarlo.

Podríamos empezar por el efecto más evidente del calentamiento global: el deshielo de la regiones polares. En el Hemisferio Norte el lugar que causa más preocupación es Groenlandia, ya que el hielo glaciar que contiene contribuiría de manera neta a elevar el nivel del mar al no ser hielo flotante. Un grupo de la University of Sheffield y de otras instituciones sostiene que Groenlandia reaccionaba de manera regional y no global con un deshielo lento desde los años sesenta a los noventa del pasado siglo (época con datos disponibles), pero que en los últimos quince años se ha acelerado la fusión de los hielos de la isla debido al calentamiento global. Los últimos veranos han sido, por tanto, marcas mundiales en los últimos 50 años. Según Edward Hanna su estudio [1] muestra que el calentamiento global está empezando a afectar a la capa de hielo de Groenlandia y ésta experimenta un declive inexorable. Según él la pregunta es si la reducción de las emisiones de dióxido de carbono será suficientes y llegarán a tiempo para detener este declive.

Al otro lado del mundo unos científicos de Durham University y del Insituto Alfred Wegener se devanan los sesos para medir el deshielo en la Antártida. En este continente la capa de hielo del oeste es motivo de preocupación. Los cambios en una de sus regiones son muy rápidos y su conversión en agua líquida elevaría el nivel del mar en metro y medio. Para dilucidar si esto se debe a motivos naturales o inducidos por el hombre y sus emisiones de dióxido de carbono, estos científicos han analizado las proporciones isotópicas de las rocas del lugar para ver cómo han sido expuestas a la intemperie y a los rayos cósmicos (es decir, descubiertas de hielo). Los resultados preliminares [2] indican que en el pasado el ritmo de deshielo era unas veinte veces más lento que el actual. Como ejemplo sólo mencionar que el glaciar de Pine Island viene reduciendo su grosor en 1,6 metros anuales durante los últimos años.

**Malas soluciones**

Las soluciones pensadas para la reducción del efecto invernadero, como el uso de biocombustibles, no parecen que vayan por buen camino. Un estudio de University of Minnesota [3] afirma que quizás en un futuro los biocombustibles sean buenos para el medio ambiente, pero que de momento sólo traen daños y aumentan el calentamiento global.

El problema consiste principalmente en convertir selvas, sabanas y otros terrenos naturales en campos de cultivo para biocombustibles. Estos lugares vírgenes dejan de fijar carbono y su destrucción genera la emisión del carbono (en forma de $CO_2$) que estaba fijado allí. Como resultado la producción de bioetanol o biodiesel produce de 17 a 420 más dióxido de carbono que lo que se ahorra al no usar combustibles fósiles.
Así por ejemplo, la plantación de palmas de aceite en Indonesia requerirá de 423 años para que se amortice el carbono. En la selva del Amazonas la cosa no es mucho mejor, pues se necesitarán 329 años para lo mismo.

Los expertos autores del estudio dicen que incentivar estos cultivos es una política errónea y que esto empeora el problema del calentamiento global. Según ellos los únicos biocombustibles que no contribuyen al calentamiento global son los que no necesitan de la conversión de habitats nativos en cultivos o que utilizan tierras marginales.

En este estudio no se ha tenido en cuenta la destrucción de biodiversidad que conlleva la destrucción de ecosistemas vírgenes ni lo que se pierde con ello, factor que es muy importante.

**Bosques en peligro**

Conservar los bosques tropicales es difícil dado el egoísmo humano, que lo destruyen directamente al explotarlo o transformarlo en tierra de cultivo, pero nuestros errores no intencionados también pueden pasar una factura alta. Es lo que parece estar sucediendo en Hawaii. Los datos de radar y espectrométricos indican que esas islas han sido invadidas por especies vegetales foráneas que el ser humano ha introducido allí de manera "accidental". Han podido contabilizar que en años recientes se han introducido 10.000 especies foráneas (animales y vegetales), de ellas 120 están causando graves daños a las especies nativas, que no tienen tiempo de adaptarse a la invasión.

Gregory Asner del Carnegie Institution ha desarrollado una tecnología híbrida, de radar y espectroscópica, para crear un sensor con el que se puede diferenciar las especies vegetales autóctonas de las foráneas desde el aire [4].

Gracias este dispositivo se puede ver que árboles como *Psidium cattleianum*, que fue importando por su fruta (guava), han invadido los bosques vírgenes de al menos una de las islas, está aniquilando a los árboles autóctonos al cambiar la hidrología, el balance de nutrientes y acaparar la luz solar. Algo similar está sucediendo con otras especies vegetales.

**El fin de la vida oceánica**

Respecto a los océanos terrestres, el primer mapa de impacto [5] sobre los ecosistemas marinos muestra que todos los mares de la Tierra están afectados por la actividad humana.
Un equipo internacional ha levantado este mapa, que puede llegar a tener una resolución de un kilómetro cuadrado, en el que se han evaluado 17 aspectos o parámetros distintos. En algunos

lugares los problemas se solapan de tal modo que como resultado se puede afirmar que el 40% de la superficie oceánica mundial experimenta un impacto ecológico de moderado a alto. Uno de los aspectos más importante es el efecto del calentamiento de los océanos, que tiene graves consecuencias ecológicas. Otro gran problema es el de la acidificación. Ambos son producidos por las emisiones de $CO_2$ de origen humano. Pero a la lista hay que añadir la contaminación, la sobrepesca, el tráfico marítimo, turismo, etc.

Manglares, arrecifes de coral, praderas de algas o aguas profundas son los ecosistemas más afectados.

Se ha denunciado, por ejemplo, que en medio del Pacífico, y a causa de una confluencia de corrientes, se acumula una gigantesca mancha de basura de origen humano de kilómetros y kilómetros de extensión, donde flotan botellas de plástico y toda clase de objetos.

El estudio simplemente cuantifica lo que los expertos del tema venían denunciando desde hace tiempo. Si no se hace nada pronto, los mares de la Tierra simplemente morirán, carecerán de toda vida y los humanos que antes se alimentaban de ellos o vivían de ellos tendrán que buscar alternativas.

Los problemas del mar vienen a veces de detalles que parecen sin importancia. Según Roberto Danovaro y su equipo, uno de los factores que mata el coral es el uso de crema solar por parte de *snorkelistas* y bañistas [6]. Las sustancias químicas pensadas para bloquear los rayos UV del sol activan virus latentes en las microalgas simbióticas del coral, éstas mueren, el coral se blanquea y al final el propio pólipo desaparece. Para demostrarlo estos investigadores tomaron muestras de coral de todo el mundo y los cultivaron en el laboratorio. El añadido de cantidades muy pequeñas de crema solar al agua hacía que los corales se blanquearan en unos días. Había algas en las primeras 18-48 horas, pero después disminuían hasta desaparecer. Los filtros solares modernos y los conservantes parecen los culpables. Los investigadores recomiendan el uso de cremas solares basadas en filtros físicos como el dióxido de titanio.

En el congreso de la American Association for the Advancement of Science se ha denunciado que el calentamiento global está haciendo disminuir los niveles de oxígeno en los mares terrestres de tal modo que pone en peligro sus ecosistemas [7]. Según Jane Lubchenco de Oregon State University puede que ya hayamos cruzado el punto de no retorno en este asunto en algunos lugares.

Estos eventos de hipoxia, en lugar de ser una excepción, están siendo la norma en el Pacífico del Noroeste. Desde 2002 tienen una gravedad nunca vista en los últimos 50 años. La marca mundial se alcanzó en 2006 cuando en una gran capa marina (el 80% de la columna total de agua) de esa región oceánica se alcanzó la anoxia (carencia total de oxígeno) sobre 3000 kilómetros cuadrados, prolongándose la situación por cuatro meses. Por debajo de cierto nivel de oxígeno la mayoría de los animales marinos se asfixian o sufren daños. Si se alcanza un nivel nulo, como en ese evento, casi todos los animales mueren.
La causa parecer centrarse en vientos persistentes causados por el calentamiento global, situación que se agrava por los fenómenos naturales de El Niño y La Niña.

Todo esto se suma al estudio de Carnegie Institution en el que se afirma que los corales no podrán sobrevivir en los océanos terrestres debido a la acidez. Se predice que a mediados de este siglo ya habrá desaparecido el 98% de los corales mundiales [8]. Esto producirá obviamente extinciones masivas. Una de las primeras víctimas será la gran barrera de coral. Ya hablamos de este resultado en NeoFronteras hace poco, así que no nos extenderemos. Pero de la misma institución e investigadores es otro informe [9], basado en simulaciones computacionales, en el que se dice que la única manera de estabilizar el clima mundial es asumir unas emisiones cercanas a cero. Al parecer, estabilizar las emisiones de $CO_2$ ya no es suficiente, hay que anularlas. Si así se hace el modelo predice que las plantas terminarían por fijar ese exceso de dióxido de carbono y se volvería a la temperatura normal en 500 años.

Sobre este mismo asunto no es mucho más optimista el estudio [10] liderado por Andreas Schmittner de Oregon State University. Según su modelo si se disminuyen las emisiones de este gas y se llega a emisión nula para 2100 se mantendrá un aumento de la temperatura de 4 ó 5

grados durante otros 200 años mínimo. La proyección a un plazo de tiempo mayor no es posible debido a las limitaciones de este modelo.

Por si los lectores no lo saben, la actividad humana no sólo emite de manera exponencial más y más cantidad de este gas, sino que por otro lado va destruyendo los sumideros del mismo como las selvas y bosques vírgenes. El océano por otro lado empieza a saturarse y en algún momento dejará de absorber tanto gas como hace ahora.

**Negacionistas sin argumentos**

Para aquellos negacionistas que todavía le echan la culpa al Sol del calentamiento global, un reciente informe [11] quizás les abra los ojos. En el congreso de la American Association for the Advancement of Science se presentó unos resultados en los que se demuestra que la actividad humana está detrás del calentamiento global y no el Sol. Los datos están basados en medidas sobre los contenidos de isótopos de carbono y berilio en sedimentos terrestres de miles de años de antigüedad. Algunos de estos isótopos están relacionados con la actividad solar por lo que se puede inferir ésta desde el pasado hasta el presente. Según los datos disponibles, la actividad solar sí ha cambiado en el pasado, pero que en tiempos recientes no parece haberlo hecho. No se sabe cómo será la tendencia futura, si a la baja o al contrario.

Otro científico participante en el congreso afirma que está claro que el cambio climático actual no está relacionado con el Sol si nos basamos en las pruebas disponibles, y que está sucediendo más rápido que cualquier cambio climático del pasado conservado en el registro geológico.

**Sobrepoblación y fin de civilizaciones**

Una metáfora de lo que le pasa a la Tierra ahora es lo que le sucedió a la isla de Pascua. Este trozo de terreno de 120 km cuadrados es uno de los más aislados del mundo. A él llegaron personas procedentes de alguna isla del Pacífico y se asentaron. Por diversos motivos depredaron todos los recursos de la isla durante generaciones hasta que no quedó ni un sólo árbol. Llegados a ese punto ni siquiera podían escapar de la isla y se sumieron en la barbarie, el hambre y la extinción cultural. Un modelo matemático reciente [12] explica muy bien este hecho histórico. La población que podía mantener la isla era de unos 2000 individuos, cosa que se dio en el año 1175, pero en el 1300 era de 7000 personas. En el 1400 ya no quedaba ninguna palmera de las que antes cubrían la isla. La población humana cayó en picado y para el año 1600 volvía a haber sólo 2000 habitantes. Simplemente se agotaron los recursos. Los autores del modelo lo han aplicado también con éxito a la civilización maya de Copán, y esperan aplicarlo al mundo actual próximamente.

**Una extinción más**

Terminemos con un par de detalles. Una especie de pez mariposa de los arrecifes de coral (*Chaetodontri fascialis*), y que está extendido por todo el mundo, se enfrenta a su más que probable extinción [13]. La causa de esto se debe a que los ejemplares mueren de hambre al no encontrar el coral del que se alimentan y a que son víctimas de los amantes de los acuarios. Es sólo un detalle, una especie más (esta vez muy vistosa) de las muchas que se extinguen cada día.

Por último sólo recordar que el gobierno chino ha derogado la ley que limitaba a un hijo por pareja la cantidad de descendencia que podían tener sus ciudadanos.
Sólo recordar que éstas son sólo unas pocas noticias sobre este tema de las últimas semanas.

Note: The following clip in Spanish discusses EPA lack of funds for new carpool routes.

## Sin fondos para nuevas rutas 'carpool'

By Isaías Alvarado
La Opinión, Sunday, March 9, 2008

No es un secreto que Los Ángeles es una ciudad de conductores solitarios. Motivarlos a que compartan el auto es un reto que la Dirección Metropolitana de Transporte (Metro) ha congelado por falta de recursos.

Para la construcción de carriles compartidos en cinco autopistas de la región se contempla un presupuesto de 1,768 millones de dólares.

En junio pasado, cuando la junta directiva de Metro daba por hecho la inyección de recursos, el Comité de Transporte de California y el Departamento de Transporte de Estados Unidos dieron un portazo al asunto.

El viernes pasado, el gobernador Arnold Schwarzenegger anunció la entrega de 171 millones para Los Ángeles, destinados a la ampliación de una línea del Tren Ligero, la compra de autobuses y la construcción de un carril exclusivo para autobuses en el bulevar Wilshire. Pero no se destinó nada para los carriles compartidos.

De acuerdo a la Dirección Metropolitana de Transporte, estos carriles -exclusivos para vehículos donde viajan dos o más personas- ahorran 171 millones de horas para quienes los utilizan.

Cifras de esa dependencia indican que actualmente 70% de las personas que se transportan en el condado viajan sin compañía a su hogar, escuela o algún otro sitio.

Mientras los recursos no lleguen, permanecen en diseño dos tramos de la Interestatal 5 que van de la autopista 605 a los límites con el condado de Orange, y de la carretera 134 a la 118.

También están pendientes, en la Interestatal 10, dos carriles que irían de la carretera 57 a la 605, en ambos sentidos.

En etapa de planeación permanece una extensión de la autopista 405, que va de la Interestatal 10 a la carretera 101. Al norte, donde se unen las autopistas 14 y 138, se pretende construir un carril compartido hasta el área de Lancaster.

Al este, en la autopista 71, se contempla construir dos líneas compartidas en ambos sentidos, desde la carretera 60 hasta la interestatal 10, en San Dimas.

Los tramos que se están construyendo actualmente, como en la autopistas 5, 60 y 405, ya habían recibido fondos en 2001.

"La parte más importante de este programa es convencer a la gente a que compartan el viaje, o sea, que haya menos conductores que viajan en el automóvil y eso delibera inmediatamente en un 50% el tráfico de vehículos que viajan en las autopistas", señaló Brian Lin, director del área norte de Metro.

Es el primer paso a diseñar un sistema de autopistas acompañado por líneas de carpool, con intersecciones a otras carreteras, explicó Lin.

Según autoridades de Metro, los pasajeros que viajan sin compañía y hacen viajes redondos de 70 millas o más, invierten hasta 785 dólares al mes, considerando el gasto por la gasolina y el mantenimiento del vehículo.

En contraparte, el mismo viaje compartido costaría solamente 224 dólares mensuales.

Por eso, Metro además diseñó un programa para que los conductores compartan el viaje en sus autos o en camionetas rentadas, denominado vanpool.

"Los juntamos con otra persona que vive en la misma área para que pueda compartir el viaje a su casa", comentó Mariana García, supervisora de la línea de atención telefónica de vanpool.

Desde agosto de 2007 a la fecha, han logrado que 400 camionetas transporten de sus casas a sus centros de trabajo, y viceversa, a decenas de personas que no quieren seguir batallando con el congestionamiento.

En caso de que uno de los participantes del programa requiera un traslado extraordinario, existe un plan denominado Guaranteed Ride Home que le paga el servicio de un taxi.

Para más información, llame al 1 (800) COMMUTE (opción 3).