Uncertain future

Growth, climate change could spell disaster for valley, state waterways

By Michael G. Mooney, staff writer
Modesto Bee, Sunday, October 8, 2006

More than a century ago, the men and women who tamed the Northern San Joaquin Valley relied on water from the Sierra's snow-fed rivers and the valley's aquifer to slake their thirsts and nourish their fields and livestock.

Today, most newcomers streaming into Stanislaus, Merced and San Joaquin counties aren't looking to farm.

Still, they must depend upon the valley's aquifer and those snow-fed rivers — the Tuolumne, San Joaquin, Stanislaus and Merced — to satisfy their water needs.

But will that be enough?

Already, experts say aquifers are being drained faster in certain places than nature can replenish them. Historically, water in the aquifers has been tapped to meet the bulk of the region's water needs.

Already, experts say the region's largest urban centers — Modesto and Stockton — are preparing for the day when their domestic water systems will rely primarily on treated river water, not well water.

Already, experts say an upturn in temperature is changing regional rain and snow patterns with potentially devastating long-term consequences.

As the Northern San Joaquin Valley's population grows — from today's nearly 1.5 million to an estimated 2.8 million by 2040 — the demand for clean, reliable and easily obtainable water will grow as well.

But with climate change in the mix, said Edwin Maurer of Santa Clara University, the quality, quantity and availability of water in the threecounty region, as well as statewide, will be thrown into flux.

"There's going to be less water in general," said Maurer, who specializes in water resources, hydrology and hydrometeorology. "What I'd say to (Central Valley) water managers is be ready to plan for changes. The infrastructure needs to be adaptable."

So, how will that be accomplished here?

The Modesto Irrigation District's top executive fell silent for a moment, pondering a question about how the utility would cope with the effects of climate change.

"I really don't know how to answer that," said MID General Manager Allen Short. "Our facilities are designed for both snowpack (runoff) and rain. I don't see a significant change in how we do things."

Yet, if the experts are right, the state must significantly change the way it stores and distributes water to avoid an economic and environmental catastrophe.

In a worse-case scenario, the Sierra snowpack would be reduced by 90 percent from 2070 to 2099.

Average temperatures, meanwhile, would rise from 8 degrees to 10.4 degrees under the scenario developed by the California Climate Change Center at the University of California at Berkeley.

Many scientists say they believe carbon dioxide and other greenhouse emissions, such as water vapor, methane, nitrous oxide and ozone, are behind the worldwide rise in temperatures.

For Wes Monier, strategic issues and planning manager at the Turlock Irrigation District, losing 90 percent of the Sierra snowpack would render today's dam and reservoir system virtually useless.

But Monier knows of no way to effectively plan today for a "day of reckoning" that could be more than 60 years away.

While there have been dramatic snowpack reductions in the short term, Monier said, a permanent 90 percent loss of snowpack would be far more problematic for the valley, its people and its farm-based economy.

During the 1977 drought, Monier said, the Sierra snowpack was reduced by 60 percent to 83 percent over the previous year.

Rivers suffered.

Farmers struggled.

Costs increased.

Spring runoff into the Tuolumne and Merced rivers was 28 percent of normal then. The Stanislaus River received a mere 20 percent of its typical runoff.

Lower river flows meant less water in the irrigation canals. Farmers turned to well water to keep their crops healthy, pumping so much groundwater that the valley's aquifer dropped twice as fast as normal.

A Feb. 17, 1977, story in The Bee pointed out that the cost of running a 30-horsepower pump for 1,500 hours was $1,125 in 1975. By Jan. 1, 1977, the cost had jumped to $1,450. By Jan. 6, just five days later, the cost had risen to $1,745.

The drought's relatively short duration enabled the area to recover.

Imagine what would happen if such conditions were permanent. Monier said it would plunge the region into "survival mode."

Then, water restrictions would go far beyond odd-even watering days and mandatory low-flow toilets and shower heads.

Michael Hanemann, director of the California Climate Change Center at UC Berkeley, paints a depressing picture of life in the valley circa 2085, forecasting:

Net revenue losses ranging from 9 percent to 26 percent for the valley's ag-based economy.

Urban droughts occurring twice as often and twice as severely as in the past.

Rationing would generate statewide losses of $5 billion or more a year for water users.

Without enough water or water pressure, things we take for granted today such as a fire department's ability to put out fires, could be compromised.

Washing the car, filling the swimming pool and caring for the lawn would be so far down the priority list as to be nonexistent.

"There's nothing in history," said Monier, "that we've seen like that."

Crucial to anticipate all the possibilities

While Monier wouldn't speculate about whether climate change, also known as global warming, has arrived in the valley, he said the driest and wettest years — based upon his review of 110 years of records — have occurred within the past 30 years.

Other scientists and researchers have made similar findings, tracing dramatic changes in weather patterns back to the early 1970s.

After the 1977 drought, Monier said, the region endured a second drought lasting from 1987 to 1992. Wet years were recorded in 1983, 1995, 1997, 1998, 2000, 2005 and 2006.

All that data, dry and wet years alike, Monier said, has been incorporated into the irrigation district's computer models to anticipate future conditions and needs.

With reliable long-range weather forecasts still measured in days, Monier said, accurately anticipating weather conditions decades into the future — and making systemic changes — is not practical.

Hanemann, however, says it's a mistake to "think that these changes will not occur until the latter part of the century" and can be ignored for now.

"The changes — earlier spring, earlier snowmelt — are already under way," he said. "The (adverse) impacts on our water supply will begin to be seen within the next 20 to 30 years."

Former Modesto Mayor Carol Whiteside said the stakes are too high to put off planning.

Whiteside said it's crucial for valley water agencies to work together and anticipate all the possibilities — good and bad.

"Anyone engaged in the public sector or public policy-making has to be thinking about all the contingencies," said Whiteside, who leads the Modesto-based Great Valley Center. "The valley has existed in isolation, both geographically and economically, for a long time. But on an issue like this, we're not an island."

Modesto City Manager George Britton said the problem is twofold.

"First, government, by its very nature, is reactive and slow," he said. "Secondly, the lack of leadership and national and statewide focus (on climate change) has been a real problem."

Noah Hughes, who teaches earth science at Modesto Junior College, said there is "very little incentive for long-range planning."

Politicians, he said, tend to focus on the short term — often seeking popular solutions to problems with an eye toward re-election, rather than pursuing a better long-range option that voters might not like.

"The political system," said Richard Anderson, a Modesto Junior College biology teacher, "needs to pay more attention to the scientists."

Watersheds no longer act naturally

Clark Anderson is a water and land-use planning specialist with the Local Government Commission in Sacramento. He said land-use policies, including converting farmland to urban uses, are altering the valley's hydrological makeup. As a result, watersheds no longer act naturally.

Covering a watershed with buildings and pavement, Anderson said, increases runoff that can lead to flooding, as well as to polluting underground water.

Pollutants such as car and truck oil and grease wash into storm drains and percolate into underground water supplies. Those pollutants also make their way into creeks, streams, rivers and reservoirs.

Concrete, asphalt and other materials — used to build all those new homes, shopping centers, parking lots and roads — create an impenetrable barrier, preventing rain from saturating the earth and replenishing the aquifer.

Modesto's well-driven water system, for example, has been beset by contamination and low-pressure problems in recent years.

An even bigger problem, especially on the valley's West Side, is salt intrusion. The brackish groundwater is of no use to either farmer or urban dweller.

So land-use planners must pay attention to how and where growth occurs within watersheds, Anderson said, keeping an eye toward both economic and environmental consequences.

"We need to be dense," he said. "We need to be comfortable (living) with density. We need to be less reliant on cars. We need fewer roads and smaller roads."

The rivers will be tougher to manage

Since the Gold Rush era, most valley communities have relied upon a "conjunctive use" approach — blending surface water from rivers with groundwater.

With groundwater becoming more unreliable, cities such as Modesto, Turlock and Stockton are looking at taking more water from rivers and less from the aquifer.

Such plans, of course, assume the Tuolumne, Stanislaus and other rivers will be able to provide enough water to meet demand.

Experts such as Maurer, Hanemann and Anderson question that.

Expecting shorter and more volatile winters and longer and hotter summers, experts say reservoir managers will find it increasingly difficult to dole out water to farmers and city dwellers.

While rivers may not dry up, they will be tougher to manage, experts contend, as will the reservoirs that feed them.

During hot, dry summers, flows into the rivers could be reduced to a mere trickle. Beyond the impact to people and crops, salmon runs would be doomed and riparian habitat reduced.

During wet, volatile winters, severe flooding would increase, destroying more property and displacing people and animals.

Louise Johnson, a Modesto resident and member of the Roman Catholic Diocese of Stockton's "environmental justice" committee, said too few people are concerned about future generations.

"Everything is so intertwined," she said. "There are social and economic issues underlying all of this. Not enough people are looking to do the common good; we only do what we perceive is good for us."

Without a true regional approach on water and related climate issues, Whiteside worries about what the future holds for our children and grandchildren.

"No one wants to go through a climatic disaster," she said, "when little changes along the way could have made a difference."

Program launches shipping industry into the green

Company switches to cleaner burning fuel when approaching port

By Paul T. Rosynsky, staff writer
Tri-Valley Herald, Monday, October 9, 2006

OAKLAND — Every day, half a dozen container ships sail to the Port of Oakland spewing black soot into the air as they burn tons of sulfur-filled bunker fuel.

The fuel, made from the leftovers of refined crude oil, has a sulfur content of 3 percent and is one of the major contributors to pollution at the state's port complexes.

But one shipping firm hopes to change this dirty tradition.

With an eye toward new state regulations and awareness of the growing political determination to reduce air pollution at ports, Maersk Inc. will announce today the completion of a pilot project to help reduce emissions.

Under the program, the company's 35 ships that call on California ports will no longer burn bunker fuel as they approach the coast. As soon as they get within 24 miles of the coast, the ships will switch to a cleaner burning, low-sulfur fuel.

The move will remove about 400 tons of emissions from the state's air each year by reducing sulfur oxides by 92 percent, particulate matter by 73 percent and nitrogen oxides by 10 percent.

"We are not overlooking our obligations," said Gene Pentimonti, senior vice president of government relations for Maersk Inc. "We are concerned about some of the emissions problems that are here, in a more severe way than any other place in the United States."

State ports have long been at the center of efforts to reduce pollution. With hundreds of diesel trucks moving through them each day and dozens of ships at their docks, ports are a main source of the state's air pollution problems.

While programs to reduce pollution from port vehicles have made headway, getting companies to reduce ship emissions has been tougher.

Even after ships dock, they continue to burn fuel to power auxiliary engines that keep the lights on while containers are loaded and unloaded from the cargo hold.

The continued burning of bunker fuel in auxiliary engines has angered many environmentalists, who argue ships could use other sources of power to keep the lights on.

They've suggested everything from changing fuels to having ships hook up to local electric sources while docked.

Until now, most shipping companies and ports had been resistant to change. Many argued changes would be too costly and hamper the state's ability to attract shipping.

But a state Air Resources Board decision to institute new regulations requiring ships to burn fuel with 0.5 percent sulfur when at the docks has many scrambling to find a solution.

Maersk found its solution earlier this year after more than a year of studies.

The company, a subsidiary of world shipping giant A.P. Moller, found that it would only cost $2 million to $3 million more a year to burn the lower-sulfur fuel as their ships approach the docks.

In addition, the company does not have to retrofit engines or change holding tanks on ships to accommodate the new fuel.

Maersk's program goes a couple of steps further than the new requirements as well. The fuel Maersk will burn has .2 percent sulfur content, and the company will begin to use it 24 miles from the coast, not just at the docks.

Mike Scheible, deputy executive officer with the Air Resources Board, heralded the company's decision to move forward before regulations are enacted.

"It demonstrates the economics are not so horrible," he said. "They stepped out and showed that they are willing to do something on their own."

And the fact the company's new program will surpass the regulations could start a trend that will soon have all ships approaching California burning the new fuel, he said.

"Look, the biggest shipper in the state found out how to do it," Scheible said. "It's a very worthy program."

Although Maersk has outfitted all of its California-bound vessels with the fuel, it has no plans at this point to use the fuel for its entire fleet.

But it is working on other technologies, including using catalytic converters, to ensure its ships will not produce as much emissions.

"The industry is looking to make sure that we get some performance standards and do everything we can to bring down emissions," Pentimonti said.

Valley has big stake in $37b

Massive bond package on ballot affects levees, roads, schools, housing.

By E.J. Schultz / Bee Capitol Bureau

Fresno Bee, Monday, October 9, 2006

SACRAMENTO — One of the most important decisions voters will make in November is whether to spend a record $37billion on the state's roads, schools, levees and housing.

If passed, a five-bond package would ignite a wave of construction that could benefit the San Joaquin Valley in a big way. Billions of dollars could flow for Highway 99 modernization, local street fixes, clean-air upgrades to school buses, classroom construction, farmworker housing, flood protection and more.

"The Valley has a huge opportunity in these bonds," said Carol Whiteside, president of the Great Valley Center, a Modesto-based nonprofit that advocates for Valley causes. "We're a growing area, and there's such a need for infrastructure."

Though there's broad consensus on the need to improve the state's infrastructure, some Republicans who oppose the bonds say the upgrades should be funded on a pay-as-you-go basis, instead of borrowing all the money.

Another bond, placed on the ballot by environmentalists, dedicates $5.4 billion for safe drinking water, flood control, parks and San Joaquin River restoration.

Even if the bonds pass — polling shows each hanging on by the slimmest of margins — many of the key decisions about how the money would be spent won't be made until after Election Day.

In order to get enough votes to get the five Legislature-approved bonds on the ballot, Gov. Schwarzenegger and lawmakers kept the language somewhat vague. For the most part, they avoided the kind of specific earmarks that often can set off turf battles and doom legislation.

That means voters won't be considering a list of projects. Rather, the bonds contain total spending amounts and guidelines, with many of the specific spending decisions left in the hands of lawmakers and state departments, boards and commissions. In many cases, money will be distributed using competitive grants, meaning local governments and planning agencies will have to apply for funding.

Assembly Member Mike Villines, R-Clovis, said that could spell trouble for the region, which has fewer votes and less clout than other areas.

"Whenever there's vague language, the Central Valley loses," he said. "At the end of the day, I think all this money will get divvied up, and it will go to all the large urban areas."

Whiteside disagrees, saying that local groups have begun to speak with one voice, giving the Valley more power than it has ever had.

"It's not a slam dunk, but I think it will be less easy to [ignore] the Valley than it used to be," she said.

With financing costs added in, the bonds — designated as Propositions 1A through 1E — are projected to cost the state $73.3billion over 30 years. The price tag jumps to $83.8 billion when the environmental bond, known as Prop. 84, is included. Many Republicans say the state can't afford the borrowing.

Villines, who wrote the ballot statement against the $19.9 billion transportation bond, wants more of a pay-as-you-go approach.

The bonds put "a lot of pressure on the existing budget to pay for all the borrowed money," he said.

Assembly Member Juan Arambula, a moderate Democrat from Fresno, said that like a lot of Californians, he was still uncertain how he would vote. "Next year's budget is going to look pretty tight," he said. "On the other hand, I know that it's a good thing to invest for the future."

Here's a look at the bonds and what each could mean for the Valley:

Transportation

Proposition 1B, the largest bond, would pump $19.9 billion into highways, roads, ports and public transit. Another measure, Prop. 1A, makes it harder for the state to divert gas tax money to projects not related to transportation.

The lone earmark in Prop. 1B is $1 billion for 400-mile Highway 99. Regional transportation agencies have a handshake agreement that 85% of the money would be spent on the 274-mile stretch running through the San Joaquin Valley, said Alan McCuen, a deputy district planning director for the California Department of Transportation.

Overall, much of the bond spending would be overseen by the 11-member California Transportation Commission, appointed mostly by the governor. Local officials are expected to seek money for several projects, including widening and expanding several east-west routes, such as Highway 180.

Some of the money would be distributed only if local governments can match it. That means Fresno County governments would have more leverage if voters pass Measure C, the Fresno County transportation sales tax.

The bond also includes money for air pollution upgrades to schools buses, as well as railroad crossing safety improvements — both big needs in the Valley.

Schools

At a cost of $10.4 billion, Proposition 1D would mostly go for construction and upgrades at K-12 schools. Fresno Unified School District officials are confident they'd get $58 million to upgrade more than 30 schools, including money for basic repairs and technology upgrades.

The State Center Community College District, meanwhile, has guarantees that it would get $19.3 million for its new Clovis campus near International and Willow avenues. The bond also includes money for charter schools and technical education centers.

Housing

Proposition 1C is a $2.85 billion housing bond, aimed mostly at infill development, low-income rental housing and home-buyer assistance programs. The San Joaquin Valley could see at least $80 million, said
Michael Lane, a management analyst for Self-Help Enterprises, a private, nonprofit housing developer specializing in low-income housing in the Valley.

The bond also reserves $285million statewide for homeless shelters, farmworker housing and pilot projects aimed at reducing the cost of affordable housing.

Water

Proposition 1E would spend $4.1 billion on levee upgrades and flood management. Most of the money is targeted at the Central Valley flood-control system, running from the Sacramento River near Chico south through the San Joaquin River to near Mendota. The bond does not mention specific projects, though it's likely a lot of the money would go to shore up levees in the Sacramento region.

When it was placed on the ballot by the Legislature, Prop. 1C disappointed some Valley officials because it did not contain money for water storage — a long-standing wish of the agriculture industry. However, some local groups have come to support the bond — including the Friant Water Users Authority — because they hope some money can be used for levee work needed for restoration of the San Joaquin River.

Natural resources

A sixth public works bond was placed on the ballot by environmental groups. Proposition 84 would spend $5.4 billion on water quality, flood control, parks and, perhaps most importantly for the Valley, $100 million for restoration of the San Joaquin River.

The San Joaquin River Conservancy would get $36 million for land acquisition, trails and public access projects along the river. Money also is available to clean up agricultural drain water on the west side of the Valley. Small rural communities would also have a shot at grants to upgrade drinking water systems.

EPA Criticized for Not Toughening Soot Law

Up to 24,000 lives could be saved annually in the U.S., and savings on healthcare and in other areas would outweigh the costs, a panel says.

By Janet Wilson, staff writer
L.A. Times, Saturday, October 7, 2006

As many as 24,000 lives — a large number of them Californians' — could have been saved each year if the head of the Environmental Protection Agency had tightened soot standards by one microgram per cubic meter annually, according to an analysis released Friday.

The cost-benefit analysis also shows that although the tab for power plants, refineries, auto manufacturers and other industry for such a change would be about $1.9 billion a year — or about $15 per household — the savings in healthcare costs, work and school attendance and other benefits would be between $4.3 billion and $51 billion.
Exposure to soot, or fine particulate matter, has been repeatedly linked to respiratory and cardiac illness and premature death. Southern California and the San Joaquin Valley have the worst fine particulate pollution in the nation, largely because of diesel-powered vehicles. The estimates found as many as 6,400 lives would be saved annually in California.

By law, the EPA is not allowed to consider the costs of a new regulation. But it, along with all other federal agencies, is required to calculate them. The agency is required to consider health benefits.

EPA administrator Stephen Johnson has been harshly criticized by medical groups, environmentalists and his own science advisors for his Sept. 21 decision to retain a standard allowing annual exposure of 15 micrograms per cubic meter, rather than tightening it to 14 micrograms or fewer.

The American Medical Assn., the American Lung Assn., pediatric and environmental groups and scores of doctors and academics who specialize in heart and lung disease had asked Johnson to set a standard of between 12 and 14 micrograms per cubic meter of air for fine particulates, saying that study after study had shown a correlation between increased exposure to soot and

higher numbers of illnesses and deaths.

Friday's online posting unleashed a new round of criticism.

"It's pretty sobering and shocking stuff to realize the agency concluded the human cost of refusing to strengthen these air quality protections was going to be [thousands of lives] lost each year," said attorney John Walke, the clean air director for the Natural Resources Defense Council.

Walke said that although the cost to industry "is not insignificant … it pales in comparison to the $50 billion annually that they project will be incurred in healthcare costs as a result of the failure to upgrade the standards."

"It's pretty darned obvious that better standards would mean fewer premature deaths," said Frank O'Donnell of Clean Air Watch.

Industry representatives could not be reached for comment late Friday.

Johnson did significantly tighten daily exposure amounts to soot, cutting the allowable level from 65 to 35 micrograms, which electric industry representatives in particular had criticized as being of unproven need and costly. The same analysis released Friday shows as many as 13,000 lives will be saved as a result of that change, at a cost of $5 billion annually, with $9 billion to $76 billion in social benefits. Johnson was not available for comment Friday. He said at the time of his decision that "reasonable minds can disagree" and that there was disagreement among scientists on the evidence concerning annual particulate exposure.

But the analysis released Friday shows that every member of a 12-member panel of scientists convened at the request of the White House Office of Management and Budget and National Academy of Sciences found that thousands of additional lives could be saved if the tougher annual standard were adopted.

The panel was made up of authors of the studies that Johnson used and specialists picked by their peers as the leading experts in particulate pollution. All reviewed the available literature on soot illness and death and primarily relied on the same two studies that Johnson did in making their estimates.

"I feel that he didn't really take into account the best available science, which is now saying very clearly that there are very significant health effects related to this longer-term exposure," said Dr. Bart Ostro, one of the 12 panelists and chief of the air pollution epidemiology section for the California EPA.

Ostro said the science panel had set risk percentages of increased illness and mortality, which the EPA then converted into possible deaths based on U.S. population and total death rates. Under a limit of 14 micrograms, those estimates found a range of lives saved from 2,200 to 24,000, or an average 13,000 annually. In all cases, the highest number of deaths avoided would be in California.

Ostro said that because California has the most fine particulate pollution and a large population, "we would see a large chunk of the benefits" if the standard were set at 14 micrograms.

"We're talking about … hospitalization and emergency room visits, asthma attacks and work loss as well as mortality," he said.

Acting assistant EPA administrator William Wehrum, who worked with Johnson on the new rules, said Friday that the new analysis was not ready when Johnson made his decision, so it was not

included as part of that process. But it would be helpful in future regulations, he said, adding that Johnson and agency staff "absolutely considered impacts to human health."

Oil Giants Put Energy Into Other Resources

Firms are dabbling in a diverse range of projects, including one in which microbes eat grease to help produce electricity.

By Elizabeth Douglass, staff writer
L.A. Times, Sunday, October 8, 2006

Inside two half-million-gallon tanks built in the 1950s, a team of microorganisms is preparing to munch its way into the annals of energy innovation.

Late this month, the microbes will start transforming truckloads of restaurant grease into electricity for a water pollution control plant in Millbrae, Calif. The one-of-a-kind setup relieves the city and area eateries of a fatty disposal headache while saving energy. And it has come with the help of a surprising backer: Chevron Corp.

You don't think of a big energy company being involved in anything but gasoline," said Dick York, superintendent of the Millbrae plant. "But Chevron is really trying to diversify. Working together, we've brought forward a project … that puts waste to work."

It's a small undertaking for a company that takes in millions of dollars in profit each day from selling oil and natural gas, not saving them. But it's part of a growing portfolio of projects backed by some of the biggest oil companies to wring energy from the sun, wind, water and waste.

Royal Dutch Shell has become one of the world's largest developers of wind farms and is part owner of two in California. Chevron operates massive geothermal plants in Indonesia and the Philippines. And BP is a partner in hydrogen power plants proposed for Carson and Scotland.

Energy executives point to such endeavors as proof that oil companies are part of a global push to rein in pollution and boost alternatives to oil and natural gas.

"We think it's important to get things done when it comes to climate change," BP Chief Executive John Browne said in an interview. "If you weigh in the balance what we've done, and what we continue to do, I think it amounts to something very significant."

Critics dismiss the efforts as "greenwash" — using environmentally friendly programs to draw attention away from unfriendly activities.

"If you look at what they are doing in terms of any kind of renewable fuel, it's swamped by a factor of 100 by what they are doing to continue to exploit fossil fuel resources," said Roland Hwang, vehicles policy director at the Natural Resources Defense Council. "If they want to have real green credentials, they need to support real policies to ensure that we can develop cleaner fuels [and] they have to support emission standards on global warming pollution."

Hwang sees Proposition 87, which would tax California oil producers to fund biofuel research, as a test of the oil companies' resolve. "They've failed miserably. They're fighting it tooth and nail," he said.

The measure's supporters say it would reduce dependence on foreign oil and create jobs in new energy ventures; opponents say it would increase oil prices and fund a state energy-research bureaucracy with no guarantee of results.

San Ramon, Calif.-based Chevron, the state's largest oil producer, is the most vigorous opponent, spending an estimated $22 million to persuade voters to reject Proposition 87 in November. Other big contributors are Aera Energy, a joint venture of Royal Dutch Shell and

Exxon Mobil Corp., and Westwood-based Occidental Petroleum Corp.

In addition, none of the oil companies stood with California as it embarked on its groundbreaking move to reduce greenhouse gases. The state's ambitious Global Warming Solutions Act, signed into law Sept. 27, faced resistance from the region's largest oil industry trade associations.

"I think critics are reasonable in saying, 'Where's the walk behind the talk?' " said Nicholas Eisenberger, managing principal at GreenOrder, a New York environmental strategy and marketing firm. But, he added, "these resource-based questions, they don't get solved overnight."

A Chevron spokesman declined to discuss the company's oil tax stance, but Chief Executive David O'Reilly recently explained Chevron's opposition to the greenhouse gas law.

"We support the first step of measuring" greenhouse gases, O'Reilly said in an interview. "I think it would be better, from a state competitiveness standpoint, if we could get a similar approach to dealing with carbon emissions across the whole country." He said California "ought to be careful about launching off something in the state that divides us from the rest of the country."

BP's renewable-energy efforts have been the most visible, in part because its "Beyond Petroleum" advertising campaign has for years been highlighting the firm's accomplishments.

The London-based company is a leader in harnessing the sun's power. Its solar subsidiary is a top manufacturer of solar panels and equipment and it has installed solar systems in 100 countries. In California, the company has funded solar research at Caltech, installed a solar power system at a water pumping station in Vallejo and sold home solar systems through Home Depot.

Late last year, BP created an alternative energy subsidiary and pledged to invest $8 billion in the unit over the next decade — a commitment that dwarfs those of other oil companies. And recently, the company stepped up its wind-energy activities, announcing an alliance with Clipper Windpower Inc. and the purchase of Greenlight Energy Inc., a U.S. company with plans for 39 wind projects.

"Step by step, I think we've achieved a lot," CEO Browne said. "We have a lot more to do, both in the practical — changing the way we do business — and in inventing new businesses and new products."

But BP's efforts have also underscored the difficulties inherent in trying to reshape a company's image and focus when its profit, operations and heft are still in the oil business. A series of major mishaps have provided an uncomfortable contrast to — or mockery of, some environmentalists say — the company's professed devotion to clean energy and corporate responsibility.

Last year, an explosion killed 15 people at its Texas City, Texas, refinery, where federal investigators later cited the company for a list of "egregious and willful" safety violations. In Alaska, where BP is a significant petroleum producer, an oil leak this year was followed by a shutdown of key pipelines because of extensive corrosion, which critics said could have been avoided with proper maintenance.

In California, BP recently agreed to an $81-million settlement over claims that it illegally spewed toxic gas from its Carson refinery for nearly a decade. It also paid a $225,000 fine for nearly 300 air pollution violations at the Port of Long Beach and had 43,000 gallons of gas oil spill from a pipeline in the port.

"There's been this interesting dynamic around all the things that have happened with BP," said Eisenberger of GreenOrder. "In the environmental community, they're wondering, 'Do we yell at these guys or do we hold our fire?' And there's been a little of both."

Browne was contrite in an interview a few days before the Alaskan pipeline corrosion problem emerged.

"I regret everything that's happened," he said. "Our franchise is built on what we do, and that also includes how we respond to our own issues."

Exxon Mobil, the world's largest publicly traded oil company, has long been a lightning rod for critics of the industry's record on greenhouse gas and renewable energy issues. The Irving, Texas-based company has responded by pointing to energy-efficiency and emissions-reduction reducing projects as well as research that could improve existing fuels and vehicles.

But its efforts are relatively meager on the renewable energy front, consisting primarily of hydrogen-power research projects and a $100-million grant to fund research of solar, hydrogen, biomass and other energy technologies at Stanford University's Global Climate and Energy Project.

Exxon spokesman Russ Roberts said that the company's focus remained mostly on traditional forms of energy because it believes that the ability of renewable power sources to meet the world's needs "is very limited."

Even so, "we are doing things in alternative energy," Roberts said. "Just because we're not as visible as those other [oil companies] doesn't mean we're not doing it. We're just doing it in a different way." The company couldn't provide spending figures on alternative energy ventures.

European rival Royal Dutch Shell has invested $1 billion in alternative energy since 2000. It has installed hydrogen fueling stations in five countries and joined with Ottawa-based biotechnology firm Iogen Corp. to make ethanol from straw.

"We're getting quite a bit of experience in the renewables and alternative energy field," John Hofmeister, president of Houston-based Shell Oil Co., said in a interview. "We think that, over time, people will judge us by our deeds, not by our words."

He characterized Shell's spending on alternative energy as "the right amount for what we know and what the market is ready for."

"We will do more as we prove out the commerciality of these renewables or alternative forms of energy, and we will do more as we find the technology breakthroughs to make things happen," Hofmeister said.

At Chevron, funding for renewable-energy and energy-efficiency projects topped $1.5 billion from 2000 to 2005. The company said it expected to spend $2 billion more from 2006 through 2008 on such projects.

In addition to the Millbrae grease-to-energy project, which is an undertaking by Chevron Energy Solutions, Chevron subsidiaries have installed large commercial hydrogen fuel cells and teamed with California on hydrogen fuel tests, invested in a Texas biodiesel plant and last month pledged as much as $25 million over five years to fund research at UC Davis into next-generation biofuels.

"We have a lot of activity underway in alternatives and in energy conservation, and I think all of that is compatible with getting things done and testing them in a pragmatic way, rather than talking about them and saying this is a big issue," O'Reilly said.

At the Millbrae plant, supervisor York couldn't be happier. He credits Chevron with finding a way for the wastewater plant to produce its own power and at the same time collect and put to use 4,000 pounds per day of the kinds of kitchen grease that has for years clogged and damaged its

sewer pipes.

"We've gotten calls from as far away as Singapore … grease is a universal problem," York said. Their solution, he added, "is a natural process that we've learned to enhance."

Come opening day, the $5.5-million project will include a 24-hour automated drop-off system for grease haulers and two giant waste tanks teeming with 19 kinds of microorganisms. In digesting the mix, the organisms will create methane gas that will power — along with natural gas — a 250-kilowatt microturbine.

That electricity will heat the tanks and other operations, replacing a smaller generator that emits more pollutants. The system also will save Millbrae the cost of buying power.

"We're excited about it, and we know it's going to work," York said. What's more, he added, "packaging energy in new ways is beneficial. We can't keep going back to the old oil well."

Huge Baja Project May Chill Others' LNG Plans

Mexico's easier permit process allowed San Diego-based Sempra Energy to get a head start over those considering plants in California.

By Gary Polakovic, staff writer
L.A. Times, Monday, October 9, 2006

In the high-stakes competition to import natural gas from across the Pacific to California, one San Diego-based company has such a commanding head start that it could determine whether others can stay in the race.

Being the first to open a marine terminal to process liquefied natural gas on the West Coast involves more than bragging rights. International companies are spending millions to get permits to build giant terminals in hopes of reaping billions in revenue.
But while other companies are mired in the morass of U.S. and California regulations, Sempra Energy Co.'s Costa Azul plant is already half-built, aided by political tailwinds and less red tape in Mexico. Twin dome-shaped natural gas storage tanks rise 180 feet above a rugged coastal strip about 14 miles north of Ensenada in Baja California.

The terminal is on track to begin processing 1 billion cubic feet of natural gas daily as early as 2008 — years ahead of the competition. Moreover, Sempra is aggressively pursuing more energy contracts with suppliers — enough to more than double the size of its processing plant — with plans to make the additional fuel available in 2010.

With its proximity to Southern California, the Sempra plant may alter the race to build other LNG terminals proposed along the coast, regulators and industrial officials say. Four such projects are seeking approval, but the California Energy Commission says they won't all be needed.

Some experts question whether any new projects will be needed, given the proposed expansion at Costa Azul.

"The market won't support a lot of projects," said Harvey Morris, attorney for the California Public Utilities Commission. If Costa Azul is expanded, "it might obviate the need for others or might mean only one more is needed on the West Coast."

That prospect has not deterred other companies seeking to build LNG terminals along the coast from Long Beach to Malibu to Port Hueneme. The terminals would receive super-chilled liquid natural gas from big tankers, warm it back to vapor, then ship it in pipelines for use in homes, businesses and power plants.

Two Australian companies, BHP Billiton and Woodside Energy Ltd., are seeking permits to build

separate operations offshore near Malibu, each capable of processing about 800 million cubic feet of gas daily.

Sound Energy Solutions, a project by ConocoPhillips and Mitsubishi Corp., is seeking to build a plant with similar production capabilities in Long Beach Harbor. And Texas-based NorthernStar Natural Gas Inc. has filed a permit application to convert an offshore oil platform 13 miles from Oxnard into an LNG plant.

"We'll continue with our project," said Tom Giles, president of Sound Energy Solutions. "There's a significant need for natural gas in the United States and the West Coast, and we believe, whatever they end up doing in Baja, our project will still be a go."

A Growing Trend

Natural gas is increasingly favored by utilities and environmentalists because it is the cleanest-burning fossil fuel. It is used by power plants and factories across the United States. Domestic natural gas consumption is expected to increase 39% by 2025, according to the federal Energy Information Administration.

There are at least two dozen proposals to build LNG terminals in North America over the next several years. Currently, just four terminals operate in the United States — none on the West Coast.

California is the nation's second-largest consumer of natural gas, but it produces only 18% of the fuel it uses, according to the state Energy Commission. For years, that wasn't much of a problem because fuel from the Plains states and Canada was plentiful.

But today there is more competition for natural gas, resulting in price swings and limited availability.

Furthermore, the Energy Commission estimates that the state will need 15% more electricity in the next decade to accommodate expected growth. That will require more clean-burning fuel to help clean the nation's smoggiest skies.

"California has fewer choices within the state, and it doesn't have nearly the degree of flexibility for natural gas that might be available in other states, so LNG provides more diversity in natural gas sources," said Michael Toman, director of the environment, energy and economic development program for the Rand Corp.

Consequently, President Bush and Gov. Arnold Schwarzenegger favor developing new energy sources, including building LNG terminals to import natural gas from overseas. Business groups also back such projects because they offer more fuel choices.

But coastal environmentalists and some elected officials vigorously oppose the LNG projects because they think they will be unsightly and dangerous and will produce too much air pollution.

The state's energy master plan identifies a need for one LNG terminal — and possibly two. But that plan did not take into account a single plant as big as Costa Azul just south of the border.

Darcel L. Hulse, president and chief executive of Sempra LNG Co., said his company chose to build in Mexico because it is easier to acquire permits in a country eager for foreign investment.

"We would not be able to supply consumers if we were to wait 10 years for that [U.S. permit] process," Hulse said.

Strategically, Sempra seeks to benefit by being the first to supply imported LNG to fast-growing

Baja California, which operates on a power grid more closely connected to the western United States than to most of Mexico.

Hulse said the region that includes Washington, Oregon, California, Nevada, Arizona and Baja California requires about 10 billion cubic feet of natural gas daily, but produces only about 700 million cubic feet.

In the first phase of the project, the Costa Azul plant will process 1 billion cubic feet of fuel daily, supplied by gas fields in Russia and Indonesia.

Up to half the natural gas will be used in Baja California and the rest will move north into the U.S. Southwest. At full capacity, the expanded LNG terminal could process 2.5 billion cubic feet per day, and Hulse said the bulk of that would flow into California and the West. He said an expanded Costa Azul project could provide up to two-thirds of the natural gas needed for Southern California.

"This terminal, with expanded capability, could be a key infrastructure to the Southwest and Baja," Hulse said.

Eager Suppliers

Energy suppliers already are scrambling to sign contracts to sell gas to Sempra's new Baja plant. The company has reported that shippers have expressed a willingness to supply 2.9 billion cubic feet of gas daily.

Meanwhile, Sempra will pursue more permits from Mexican authorities and is seeking approval from California and the Federal Energy Regulatory Commission for pipeline expansions across the international border and between California and Arizona.

"They'll be in the driver's seat in terms of signing up customers before anyone else because they will have a physical, tangible facility," said Pat Perez, manager of LNG projects for the California Energy Commission. "It will give them an added advantage."

But critics worry about one company operating a big LNG terminal in a foreign country as a key supplier to California.

Bill Powers, co-chairman of the Border Power Plant Working Group, said Sempra's plan to expand its Costa Azul terminal is an attempt to drive out potential LNG competitors. The group advocates for renewable energy and consumer rights in energy disputes.

"If they build it to the size they want to build it, it would provide almost the total amount of daily natural gas supply for Southern California," Powers said. "It's very monopolistic and unfavorable to the consumer."

Toman of the Rand Corp. said the Costa Azul project might still leave room for another LNG terminal on the California coast. Indeed, he said, one more such facility might be good to provide competition and ensure U.S. control and security for the West Coast's natural gas supply.

"There are trade-offs," Toman said. "Do we think market manipulation or a cutoff is significantly serious that it's worth going through the permitting and construction to have California LNG instead of just Mexican LNG?

"It's an interesting question if the project in Mexico can be a better option" than the plants proposed in California, he added.

'Green' building ideas sprouting up all over

Judy Richter, Special to The Chronicle
S.F. Chronicle, Saturday, October 7, 2006

Slowly but surely, green is going mainstream.

Proof could be seen last weekend at the first West Coast Green Residential Building Conference + Expo at the Bill Graham Civic Auditorium in San Francisco.

More than 8,900 exhibitors and professionals attended the first two days, followed by thousands more when the event opened to the public last Saturday.

In addition, a steady stream of people attended the free outdoor Solar & Green Building Fair on Sunday morning at De Anza College in Cupertino. It was an adjunct to the Build It Green Home Tour of 11 green showcase homes in Santa Clara County.

Iris Harrell, owner of the 21-year-old Harrell Remodeling Inc. in Mountain View (www.harrell-remodeling.com), attended both shows and had one of the 22 booths in Cupertino. "We're trying to create an interest in green building," she said, noting that nearly 30 of her company's 45 employees are certified green remodelers, trained by Build It Green (see resources featured in San Francisco at left).

A woman visiting Harrell's booth said she was planning to remodel a bathroom and asked how to make it green.

Harrell responded that it's important to provide good air circulation to prevent mold and mildew, to use a low-flow toilet to conserve water and to use nontoxic materials to prevent air pollution and protect health.
While the Cupertino show focused on solar energy, the San Francisco event showcased an array of products and services offered by 258 exhibitors.

A big draw for the public in San Francisco was the opening speech, "A Contract With Our Future," by Robert F. Kennedy Jr., senior attorney for the Natural Resources Defense Council.

"People were crying and changing careers after hearing that guy for one hour," show spokesman Ian Bryan said in an e-mail.

The workshop that drew the largest attendance was "The Inevitable Architect: A Phase-by-Phase Guide to Green Building," presented by Eric Corey Freed, a principal with OrganicARCHITECT in San Francisco.

He "had so many people in his room that we had to pull people out for the fire hazard," the e-mail said. "We gave him a second session the next day, and that one also filled to standing room only."

Bush Pushes Environment Moves but Still Draws Ire

By Deborah Zabarenko, Environment Correspondent, Reuters
In the N.Y. Times, Washington Post and other papers, Monday, October 9, 2006

WASHINGTON (Reuters) - He's set up the world's largest protected marine reserve, raised air pollution standards and pledged to end damaging fishing, but President Bush still draws environmentalists' ire for his stance on global warming.

Ecologically minded critics view Bush's many ``green'' initiatives as incremental steps -- not the sort of bold action they say is needed to combat global climate change.

``It would be like paying attention to giving your loved ones a good manicure when they need medicine and operations for major illnesses,'' said David Doniger of the Natural Resources Defense Council.

This year has seen the Bush administration promoting numerous environmental plans, most recently by announcing last week that the United States will work to eliminate destructive fishing practices like bottom trawling.

In September, the Environmental Protection Agency unveiled new proposed air quality standards that the agency's chief proclaimed were the toughest in U.S. history. Environmentalists said the standards fell short of what scientists -- including EPA's own experts -- recommended as safe.

In June, Bush consulted with such boldface environmental names as underwater explorer Jean-Michel Cousteau -- Jacques Cousteau's son -- and marine biologist Sylvia Earle to set up the massive Northwestern Hawaiian Islands Marine National Monument, the world's biggest ocean reserve.

Doniger and others were appreciative but ultimately unimpressed.

'SAFE, SECOND-TIER ISSUES'

``Who could be against setting aside a Hawaiian park?'' Doniger asked rhetorically in a telephone interview. ``But these are safe, second-tier issues that don't offend any of the industries that they care about.''
These industries, Doniger said, include coal, oil, auto making and electric power.

In his 2004 re-election campaign, Bush got more than $4.7 million from the energy industry, $4.8 million from the transportation industry, $4.9 million from agribusiness and $33.8 million from the finance, insurance and real estate industries, according to the Center for Responsive Politics, which keeps track of federal election statistics.

Brendan Bell of the Sierra Club also cited Bush's ties to oil, autos and utilities as helping to shape what he said was an ``atrocious'' environmental policy.

``The Bush administration on every issue has made it an art to say what the public wants to hear and do the opposite,'' Bell said by telephone.

He cited the 2003 Healthy Forests Restoration Act, which he said aided in cutting down trees. The official White House Web site, www.whitehouse.gov, said the plan was meant to cut ``the risk of catastrophic fires by thinning dense undergrowth and brush in priority locations.''

Bush's public stand on global warming has evolved since he took office in 2001. Initially, he noted the phenomenon of global climate change but questioned whether the change was caused by human activities or was due to natural cycles.increase in greenhouse gases caused by humans is contributing to the problem'' of global warming.

In his first year as president, Bush withdrew from the Kyoto Protocol, an international agreement aimed at cutting greenhouse gas emissions that spur global warming. Bush said the agreement was ``unrealistic'' and would hurt U.S. workers, offering an alternative plan offering incentives for a voluntary cut in emissions.

U.S. action on global warming is key to solving the problem, according to Michael Oppenheimer, an environmental expert at Princeton University.

``Until the U.S. acts, it is unlikely that developing countries will begin to deal with the problem,'' Oppenheimer said in a Web chat with reporters last week. ``Unless the big developing countries, as well as the
U.S. and Europe, start limiting emissions significantly over the next 15 years or so, we will have no chance to meet such an objective.''

Air Quality in Singapore Plunges

The Associated Press
In the N.Y. Times, Washington Post and other papers, Saturday, October 7, 2006

JAKARTA, Indonesia -- Smoke from Indonesian brush fires darkened skies across Southeast Asia on Saturday, sending air pollution levels soaring in at least two other nations.

Singapore's air quality index hit 130, its highest level this year. It was also the first time in 2006 the measurement climbed above 100, the threshold for "unhealthy."

Farmers or agricultural companies started the fires on Borneo and Sumatra island as a cheap way of clearing the land.

Some hospitals in those parts of Indonesia were crowded with people complaining of difficulty breathing. Flights were cancelled and drivers were having to use their lights in the middle of the day.

Firefighters said the blazes were out of control and only the monsoon rains would put them out. The forecast calls for the rains to begin in the next month.

"We have tried various measures but it is really difficult to stop the fires," said Marjani Achmad, the head of the forest fire prevention unit in hard-hit Jambi island.

The haze was also cloaking much of Malaysia, where only three of the country's 51 air quality monitoring stations registered clean air on Friday.

The haze is a perennial problem for the region. The worst case occurred in 1997-98, when smoke from land-clearing in Sumatra blanketed much of the region and was blamed for losses of nearly $9 billion in tourism, health and business.

Fresno Bee commentary, Saturday, October 7, 2006:

U.S. population rages toward 300 million

By Richard Haas

Years ago, I was a student of ecology at the University of California at Los Angeles. Our professor offered an elective course on the impact of human numbers on the natural systems that sustain life on the planet.

He told us how he came to be concerned about this question. He was born and raised in what was then Rhodesia of medical missionary parents. The local headman lamented the crisis his people were now facing as a consequence of the introduction of the most basic health services.

Child mortality changed

Before the missionaries, child mortality was very high but was compensated by high birth rates. The local people farmed the lowlands. After the missionary help, child mortality dropped, but birth rates remained the same. Population soared and farmers were obliged to clear the hillsides for their crops. The headman could see that not far in their future, it would be impossible to sustain their numbers with local resources. This turned out to be the case.

There was no textbook for our class, but there was a slim book, just then published, penned by the then director of the New York Zoological Society, Fairfield Osborn. It received enthusiastic welcome by such as the New York Herald-Tribune, Julian Huxley and Albert Einstein.

"Our Plundered Planet" made the case that "we are more likely to destroy ourselves in our persistent and worldwide conflict with nature than in any war of weapons yet devised." The year was 1948.

Osborn pointed out that at the then rate of human population increase "in a hundred years, populations may considerably exceed 3 billion." The book was generally ignored by all but a few, who were (and still are) put down as pessimists and doom-and-gloom types.

Osborn spoke of species extinctions, depletion of ground water, desertification, deforestation, soil erosion, air and water pollution and more along with commentary on the attitude that many people have, that, by divine right, we are the masters of a global system designed for us by the creator. It has been more than 50 years since I was that student. Today, the world's population exceeds 6.1 billion and increases by some 80 million per year. Turns out that Osborn's projections were optimistic.

The world's population has more than tripled since I was born, more than doubled since my two children were born. It was during President Johnson's term that the U.S. population reached 200 million, more than the entire world's human population during Rome's heyday, in the time of Jesus. This month, the population of our country will reach 300 million.

It's all about distribution

Cornicopians or Pollyannas tell us that people are hungry or without shelter, education or public health only because of problems of distribution or political corruption, that there is plenty of food, for example, for all.

Perhaps. In industrialized countries, such as the U.S., food production is entirely dependent on limited supplies of fossil fuels, almost exclusively petroleum, not only for the tractors and harvesters but also for fertilizers and pumps to bring up water from steadily depleting underground sources.

More species of living things are being daily driven into extinction today than at any time since the demise of the dinosaurs 65 million years ago, due to habitat destruction caused by ever increasing human numbers.

Climate change, driven by increasing numbers of people reasonably wanting to live decent lives of modest comfort, may well be the most critically serious problem human civilization faces in fewer years than have passed since I was that UCLA student. Think of our grandchildren, of the children now in grade school. What do they face?

Whatever social, political, economic complexities are at the core of humankind's problems, can any reasonable person argue that population is not crucial in the mix? That population growth and consequent human pressure on resources plays no role in the most obvious of our problems? With local water and air questions? Wars fought in oil-rich world areas? Energy? Global fisheries depletion, while at the same time marine ecosystems are in serious trouble?

In our small part of the world, the booming southwest, there are more and more communities facing water shortages. Developers, politicians and economists boost subdivisions, shopping malls, freeways, fast-food joints and "controlled growth."

Is growth inevitable?

Can we conceive of economic systems that do not require constant growth? Growth for growth's sake is the philosophy of the cancer cell, with predictable consequences. Is the analogy too farfetched? Can reasonable people believe that humans can grow exponentially forever?

Three hundred million Americans and 61/2 billion people is not a fact we should celebrate. The planet is finite. Human capacity for self-deception appears infinite.

Richard Haas is a professor emeritus of biology at California State University, Fresno.

Tulare Advance-Register commentary, Friday, October 6, 2006:

Chamber weighs in on ballot measures

The November ballot is crowded with elections for several statewide offices, local districts and boards, a local tax initiative and 13 statewide propositions. This is a large amount of information for voters to consider and make decisions on.

In an effort to help voters with the process and to encourage votes that we feel are in the best interests of the business community, the chamber's governmental affairs committee has carefully reviewed each of the propositions, and recommends the following positions:

Proposition 1A - Transportation Investment Fund - Legislative Constitutional Amendment:

This is a Constitutional Amendment that would ensure that the existing state sales tax on gasoline goes toward building and maintaining roads by closing a loophole in the existing law that has allowed the state to divert these funds into its general fund.

Chamber position: Support

Proposition 1B - Highway Safety, Traffic Reduction, Air Quality, Port Security Bond Act:

This is a $19.9 billion bond that is a responsible investment to get our transportation system back on track. It will create jobs related to the construction projects that it funds, and will also make California more attractive in terms of economic development. There are several projects in the Valley that are earmarked for funding under this proposal.

Chamber position: Support

Proposition 1C - Housing and Emergency Shelter Trust Fund Act of 2006:

This is a $2.85 billion bond that would fund certain types of building projects, homeowner assistance programs for low- and middle-income people, funding for multifamily projects in infill areas, and low interest loans and grants to developers of homeless shelters and housing for farm workers, among other things.

Chamber position: Support

Proposition 1D - Kindergarten through University Education Facilities Bond Act:

This is a $10.4 billion bond that would help upgrade and expand older schools, help schools become more earthquake safe, relieve classroom overcrowding and fund vocational education programs in public schools. It requires 50 percent matching from local school districts for projects.

Chamber position: Support

Proposition 1E - Disaster Preparedness and Flood Prevention Bond Act:

This is a $4 billion bond, most of which goes to repairing levies in the Delta region. Some funds go to other areas that need river restoration.

Chamber position: Support

Proposition 84 - Water Quality, Safety and Public Supply, Flood Control, Natural Resource Protection and Parks Improvement Bond:

This is a $5.38 billion general obligation bond that would fund projects relating to safe drinking water, water quality and supply, flood control, waterway and natural resource protection, water pollution control, state and local park improvements and water conservation projects. There are no provisions in it for water storage, and because it funds projects rather than programs, it could wind up costing local governments an unknown amount to maintain projects that are funded under it.

Chamber position: Oppose

Proposition 86 - Tax on Cigarettes:

This is a $2.60 per pack new tax on cigarettes. Most of the income generated will go to hospitals to fund emergency room services, nursing education and health insurance for eligible children. Less than 15 percent of the income generated will go toward tobacco use prevention programs and research of various health conditions including cancer, heart disease and asthma.

Chamber position: Oppose

Proposition 87 - Alternative Energy Research and Production Incentives. Tax on California Oil Producers:

This would establish a $4 billion program with the goal to reduce petroleum consumption by 25 percent to be funded by a tax of 1.5 percent to 6 percent (depending on oil price per barrel) on producers of oil extracted in California, and would create a new bureaucracy, the California Energy Alternatives Program Authority, to administer the funds.

Chamber position: Oppose

Proposition 88 - Education Funding. Real Property Tax. Initiative Constitutional Amendment and Statute:

This is a statewide $50 property tax on each real property parcel, although some elderly and disabled homeowners would be exempt. It would grant funds for class size reduction, textbooks and school safety. This would be the only statewide property tax levied since 1910, which sets a very dangerous precedent.

Chamber position: Oppose

Proposition 89 - Political Campaigns. Public Financing. Corporate Tax Increase. Initiative Statute:

This would provide that candidates for state-elected offices meeting certain eligibility requirements, may voluntarily receive public campaign funding from Fair Political Practices Commission, in amounts varying by office and election type. It would increase the income tax on corporations and financial institutions by 0.2 percent to pay for it.

Chamber position: Oppose

Proposition 90 - Government Acquisition, Regulation of Private Property. Initiative Constitutional Amendment:

Proposition 90 would bar state and local governments from condemning or damaging private property to promote other private projects or uses. It would also require local governments to compensate property owners if a new law or rule is passed that affects the value of their property. For example, if the zoning is changed to allow less dense development.

Chamber position: Oppose

Measure R - County Sales Tax to Fund Roads:

This would be a county-wide sales tax to fund road and transportation projects. Tulare County has the same miles of roads as if you were to drive from California to Maine and turn around and come back, yet we get very little funding from the state for these roads because its formulas are all based on population. There is a detailed expenditure plan for how the sales tax would be spent, which includes $700 million to projects in the city of Tulare. Everything generated by the tax will be spent in Tulare County. It will generate new jobs through construction.

Chamber position: Support

Jennifer McCoun is CEO of the Tulare Chamber of Commerce.

Tulare City Council candidate: Derek Thomas

Tulare Advance-Register, Friday, October 6, 2006

Derek Thomas
Age: 41
Occupation: State correctional officer for 20 years. Served in Army.
Education: Graduated from Orange High School in Orange, N.J., in 1983.
Experience: Ran for Tulare City Council in 2004.
On Tulare growth: "Growth comes with a lot of hardships, and one has to wonder when it comes to growth, does the city have the electricity to supply? ... With growth, it puts more pressure on the air, and that [means] air pollution, and the Valley already has the worst air to breathe. ... The city water table underneath has dropped 20 feet in the last 10 years, so water is a big concern also. ... Most of the new subdivisions are beginning to encroach upon our land, and if the city doesn't pay attention to that, there'll be no more agricultural land."

Letter to the Sacramento Bee, Sunday, October 8, 2006:

State a leader against warming

Re "State emission plan won't help nationally," Forum, Oct. 1: William Sweet draws all the wrong conclusions about California's plan to reduce global warming pollution to 1990 levels by 2020.

Sweet worries that "failure could be taken incorrectly as proof that the job of radically cutting emissions cannot be done at all," insinuating that California's commitment to tackling global warming might inadvertently discourage the rest of the nation from taking action in the future.

Is there credence to his concern? Only to the extent that nothing is guaranteed. However, the unfortunate result of indulging in such a theoretical musing is that it misses the greater point: California's pioneering effort to reduce global warming pollution realigns national politics on global warming, moving the United States closer to taking action -- without question.

As the sixth largest economy and 12th largest emitter of global warming pollution in the world, California is poised to make meaningful reductions that set a precedent for others to follow. Furthermore, California's history as a leader in energy efficiency, renewable technologies and air quality protection make it the perfect candidate to act on global warming, and more importantly, the perfect candidate to succeed.

Jason Barbose , Sacramento

Global Warming Education Advocate, Environment California