NEWS CLIPS

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Heat, drought worsen smog in California, stalling decades of progress



Downtown Los Angeles as viewed from Elysian Park. Many Californians have experienced the jump in pollution as more hazy vistas and bad air days. Others have faced noticeable health consequences. (Mark Boster / Los Angeles Times)

By <u>TONY BARBOZA</u> LA TIMES 11/14/2014

Heat and extreme drought have worsened smog in California over the last year

The uptick has stalled decades of progress toward cleaner air and increased health risks

State's prolonged dry spells have brought more temperature inversions, concentrating pollution near the ground

Heat and extreme drought have worsened smog in California over the last year, stalling decades of progress toward cleaner air and increasing health risks.

The state's prolonged dry spells have brought more temperature inversions, with a layer of warmer air trapping cooler air below, concentrating pollution near the ground. Mother Nature could clear away much of the bad air with rain or wind, but high-pressure

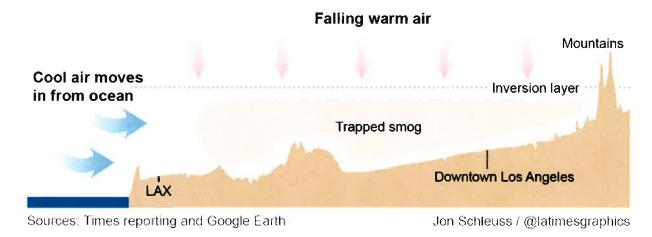
systems have resulted in fewer storms, less circulation and unusually stagnant conditions.

"There's a steady trend of air quality getting better, but layered on top of that is the meteorology, which is a crazy, up-and-down thing that is very hard to predict," said Anthony Wexler, director of the Air Quality Research Center at UC Davis.

Relief could come as soon as this winter — if enough storms blow in to stir up the air and sweep out pollution.

Smog sticks around

Pollution can get trapped in a basin when high pressure prevents air from moving.



Forecasters say a weak El Niño has <u>a 58% chance</u> of developing in the Pacific Ocean this winter and could bring more rain to California, cleansing the air.

"Even absent an El Niño, if we can just get back to a normal winter, air quality will be significantly better," said Seyed Sadredin, who heads the San Joaquin Valley Air Pollution Control District.

Over the winter, the district recorded the worst air pollution in more than a decade. And last week, the valley's fine-particle pollution again jumped to unhealthful levels.

Many Californians have experienced the jump in pollution as more hazy vistas and bad air days. Others have faced noticeable health consequences.

"You see it, and for someone who has breathing problems, you feel it," said Pati Calzada, 27, a college student who lives in the Inland Empire city of Colton, one of the smoggiest areas in the nation.

Both Calzada and her 7-year-old son, Abraham, who was recently diagnosed with asthma, have trouble breathing when pollution levels go up.

"It feels like a weight on my chest, and I know I'm not the only one," she said. Her frustration with polluted air led her to join a Sierra Club campaign to advocate for solar power and other clean energy.

Conditions grew worse, in part, because higher temperatures accelerate the chemical reactions that form ozone, the lung-damaging ingredient in warm-weather smog. In a vicious circle, heat also boosts demand for electricity, increasing smog-forming emissions from power plants.

Hot, dry conditions also have led to increasing numbers of California wildfires, which release more smoke. And dry farmland has been kicking more dust into the air.

There's a steady trend of air quality getting better, but layered on top of that is the meteorology, which is a crazy, up-and-down thing that is very hard to predict.- Anthony Wexler, director of the Air Quality Research Center at UC Davis

When drought caused air pollution to increase across California last winter, conditions were worst in the San Joaquin Valley. Fine particles jumped to their highest concentrations since 2001, more than three times the federal standard of 35 micrograms per cubic meter.

The troubles continued this fall, as the valley and Southern California reported <u>more bad</u> <u>air days</u> from ozone.

Another unusual spell of high temperatures and a strong inversion layer hit the San Joaquin Valley last week, causing fine-particle pollution to build up to dangerous levels. The region's air quality officials are telling residents to stop burning wood and reduce their driving. Activists have called for school sporting events to be canceled to protect children's lungs.

Though air pollution is a year-round problem in California, it peaks in two distinct seasons.

In the summer, ozone is the main pollutant of concern. It is not emitted directly but formed after cars, trucks, power plants and factories release reactive gases and unburned hydrocarbons. Those pollutants cook in heat and sunlight to form ozone, a corrosive gas.

Breathing ozone can harm children's lungs, trigger respiratory problems such as asthma and bronchitis and worsen heart and lung disease. On days with high ozone pollution, hospital visits for asthma rise and the risk of premature deaths increases.

In winter, another type of air pollution called fine particulate matter, or soot, becomes the main problem.

Tiny particles emitted by diesel engines, fires and other combustion sources measure less than 1/30th the width of a human hair. They are of great concern to health experts because they are inhaled deep into the lungs and can impair breathing and damage the heart and blood vessels.

Chronic exposure to fine particles is linked to thousands of premature deaths a year in California, mostly from heart attacks and cardiovascular disease. Most of those fatalities occur in Southern California, where a <u>2010 economic study</u> found that fine-particle pollution contributes to as many early deaths as traffic accidents.

Pollution regulators have downplayed the recent uptick in smog as a blip in a decadeslong trend of improving air quality.

Peak ozone concentrations in Southern California are down to about one-third of what they were in the 1970s and '80s. The region's fine-particle pollution has been cut in half since measurements began in 1999.

Emissions from cars, trucks, ships, power plants and industrial facilities are falling because of local, state and federal regulations that ensure the air will keep getting cleaner in the long term, regulators say.

Still, California is far from meeting air quality standards.

To meet a 2032 deadline to comply with current standards, the South Coast Air Quality Management District will have to slash smog-forming gases, called nitrogen oxides, more than 75%, regulators say.

Reaching that level will require near-zero emissions across much of the economy. And in the long term, rising temperatures from climate change will make controlling smog more difficult, posing new challenges in the district, which includes 16.7 million people in Los Angeles, Orange, Riverside and San Bernardino counties.

The San Joaquin Valley faces similar obstacles. Air quality officials say new rules adopted this year place the valley under the nation's most stringent wood-burning restrictions, virtually banning the use of traditional fireplaces during the winter season to control a major source of lung-damaging soot.

More hotels are going green, and not just to save water or money



A drought-tolerant succulent decorates a planter at the Intercontinental Los Angeles Century City Hotel, where crews are removing draping ivy plants from the balconies of all 361 rooms. (Bob Chamberlin / Los Angeles Times)

By <u>HUGO MARTIN</u>
LA TIMES 11/14/2014

Some hotels have gone beyond simply installing low-flow shower heads and urging guests to reuse towels

The goal is not just to save water or money, but to create an image appealing to environmentally minded guests

Nearly 60% of travelers say they plan to make eco-friendly choices when booking hotels

In the hotel industry, being green sometimes means ripping out the greenery.

The Intercontinental Los Angeles Century City Hotel is removing draping ivy plants from the balconies of all 361 rooms, replacing them with drought-tolerant succulents.

The Courtyard by Marriott in Torrance tore out 900 square feet of turf and flower beds, swapping them for native California grass to help cut water use by 15%.

With California in the worst drought in state history, some hotels have gone beyond simply installing low-flow shower heads and urging guests to reuse towels. The goal is not just to save water or money. It's about creating an eco-friendly image to appeal to environmentally minded guests.

The best thing hotels can do is say 'look at what we are doing' to help the environment.-Patricia Griffin, founder of the Green Hotels Assn.

"It's not a huge savings," Steve Choe, general manager of the Intercontinental, said about dumping the ivy planters. "I think it's about sending the right message."

Nearly 60% of travelers say they plan to make eco-friendly choices when booking hotels, with half saying they would pay extra to stay at an environmentally friendly hotel, according to a 2012 survey by the travel website TripAdvisor.

An Earth-friendly image is also important because many corporate travel managers insist that their workers stay at hotels that do their part to improve the environment.

The percentage of companies with travel booking policies that either require or recommend that a hotel adopt "sustainability" measures has jumped to 19% in the U.S., up from 11% in 2011, according to a new study by the Global Business Travel Assn., the trade group for the world's business travel managers.

"The best thing hotels can do is say 'look at what we are doing'" to help the environment, said Patricia Griffin, founder of the Green Hotels Assn., a Houston-based group that promotes green policies for hotels.

No government agency keeps track of how many hotels have adopted water-saving measures. Still, Griffin and other water experts say low-flow shower heads and other inroom measures are common in hotels because local utilities and government agencies offer rebates for water-saving equipment.



The Intercontinental Los Angeles Century City Hotel is removing draping ivy plants from the balconies of all 361 rooms, replacing them with drought-tolerant succulents. "It's not a huge savings," Steve Choe, the hotel's general manager, said about dumping the ivy. "I... (Bob Chamberlin / Los Angeles Times)

Bathrooms are the biggest drain, accounting for about 30% of hotel water use, followed by landscaping and laundry, each with 16%, and kitchens with 14%, according to the Environmental Protection Agency. Typical water-saving measures can reduce operating costs at hotels by as much 11%, the EPA estimates.

For even greater water savings — and to promote an eco-friendly image — some hotels are getting creative.

The Bacara Resort & Spa in Santa Barbara drained its decorative fountains and planted succulents and agave plants in a large fountain near the entrance.

The water saved from the drained fountains was "insignificant," but it sent a message about the hotel's environmental efforts, said Kathleen Corchran, the hotel's general manager.

When the Bacara posted a photo of the agave-filled fountain on Facebook, it got a mixed reaction from guests, with some declaring the fountain "beautiful" and others saying "Put the water back" and "Sorry you made the change."

The Intercontinental Hotels Group plans next year to give all 4,700 of its hotels access to an online tool that lets managers track how much energy and water they are using.

The group hopes to use the system to cut water use by 12% over the next three years in water-starved areas like California.

During a multimillion-dollar renovation three years ago, the Hotel Bel-Air in Los Angeles installed a filtering system to reuse bathroom water from a dozen hotel suites to irrigate its 12 acres of gardens.

The Loews Santa Monica Beach Hotel plans to install a system to recycle about 70% of the water used for its laundry operation. The project, which is expected to be installed by mid-December, will cost about \$96,000, after water and gas rebates, according to hotel officials.

Hotel officials expect the investment will pay for itself in 17 months.

The Courtyard hotel in Torrance did not replace 900 square feet of grass and flower beds with dry riverbed landscaping to save money, said David Zimmerman, the hotel's general manager. "It seemed like the responsible thing to do today, and I think the guests see that we are being responsible."

Other hotels have been motivated to improve their image and avoid fines.

The Montecito Water District in Santa Barbara declared a water emergency in February and adopted penalties to force residents and businesses to cut overall water use by 30%

The Biltmore Four Seasons in Santa Barbara, on 20 acres of beachfront land, began to impose several water-saving measures after the emergency was declared but was still fined \$48,000 for using about 1 million gallons more than its monthly allotment in April.

Since then, hotel officials say they have avoided additional fines by putting an end to washing down sidewalks and parking lots, installing low-flow shower heads and limiting landscape irrigation to evening hours, among other water-saving measures.

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Governors discuss drought coping plans

This week's meeting focus is ag effects

By Juliet Williams Associated Press Ventura County Star 11/14/2014



Gov. Jerry Brown enters a meeting Thursday at the capitol in Sacramento where a panel met to discuss the drought that has gripped the western U.s. for the past three years. Nevada Gov. Brian Sandoval initiated the yearlong series of meetings. Associated Press

SACRAMENTO — The governors of California and Nevada met Thursday at a forum aimed at coming up with the best ways to cope with the unprecedented drought, now in its third year, affecting the western U.S.

"I think the drought will test our imagination and our science, our technology and our political capacity to collaborate," California Gov. Jerry Brown, a Democrat, said in opening remarks.

Nevada Gov. Brian Sandoval, chairman of the Western Governors' Association, initiated the yearlong series of meetings that include senior water, energy and agriculture policy leaders from government and the private sector. The meetings will lead to a report of best practices to be released next June.

This week's meeting in Sacramento is focused on how to manage the drought's effect on agriculture.

"These farmers ... they come to me and they feel really helpless. They don't know what to do. And their livelihood is at stake," said Sandoval, a Republican.

California voters last week approved a \$7.5 billion water bond measure that will allow the state to expand storage and develop water management plans.

Brown noted that the proposals for addressing California's water problems will be controversial, including his contested \$25 billion plan to build twin tunnels underneath the Delta that would make it easier to pump water from the Sacramento River to Central Valley farms and Southern California cities.

In another contentious move, Brown recently signed into law the first regulations governing the use of California's groundwater, bringing it in line with other states.

Brown said a recent flight over Northern California gave him a view of the hundreds of canals and tunnels that help the state move water. Brown's father, former Gov. Pat Brown, built the State Water Project, an extensive system of reservoirs and canals that was considered an engineering marvel in its day but was built for a population of half the current 38 million.

"There are a lot of people who think somehow engineering water from point A to point B is somehow unnatural," Brown said. "Well, we long ago passed the unnatural in California."

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LVMWD winner says thank you

I appreciate this opportunity to thank the voters of Agoura Hills for electing me to represent Division 5 on the Las Virgenes Municipal Water District board of directors.

I also thank my family and the many friends who helped and encouraged me during the long campaign. It was truly a pleasure meeting so many residents as I knocked on doors over the last few months.

With the election behind us, whether or not you voted for me, you have my pledge to make decisions that are based on sound policy and prudent economics.

Water policy is not the place for partisan or geographical politics, especially when we're facing one of the worst droughts in California's history.

I'm confident we can meet the challenges of dependable supplies at reasonable prices, and I believe our community will answer the call for significant and sustained conservation efforts. We're all in this together.

I'll work hard to get up to speed as a new board member, and soon after taking office in December, my email address will be published on the district's web site. If there's a matter important to you, I want to hear from you.

Once again, thank you for this opportunity to serve the community, and I thank *The Acorn* for making it possible to share this message with you.

Jay Lewitt Agoura Hills

It's Time To Compostl

FREE Rancho Las Virgenes Community Compost Each Saturday 8 a.m. to 1 p.m.

3700 Las Virgenes Road at Lost Hills Road

Now is the time for revive your soil after the long summer growing season.

Your lawn and garden areas will love the rich contents of Rancho Las Virgenes Community Compost. RLV compost is rated "Class A - Exceptional Quality" by the US EPA. Nothing speaks like results; that's why local gardeners and commercial landscapers come back again & again. And you can't beat the price - it's FREE!

By using RLV Community Compost, you help retain moisture content, enrich the soil, feed your plants (there are natural nutrients in the compost) and help the environment.

If you've never tried RLV Compost, you're missing one of the best-kept

secrets in gardening. Bring heavy plastic bags, a sealable container or a tarp to cover your pickup truck bed. We'll supply the shovels and the compost.

Learn more ways to save water - visit our websites at www.LVMWD.com or www.TriunfoSanitation.com



through EPA funding and is supported by the US Department of Applications Rancho Las Virgenes Compost Facility is operated by the Las Virgenes-Triumo Joint Powers Authority







The Acorn 2014-11-13 / Community

Program on local watersheds

The Santa Monica Mountains Watersheds group will have a council meeting from 2:30 to 5 p.m. Thurs., Nov. 20 at King Gillette Ranch, 26800 W. Mulholland Hwy., Calabasas.

The following speakers are on the agenda: Lily Verdone, from the Nature Conservancy, will present "The Nature Conservancy's Coastal Resilience Ventura Project" and Diane G., West's topic will be "Basin Municipal Water District Desalination Plant."

In addition, Robert Metcalf will speak on "Evergreen Fund: Solar in the Santa Monica Mountains" and Dr. Mary Gordon will present "The Making of a Modern Day Chief: Charlie Cooke." She will also sign copies of her book.



Public Workshop

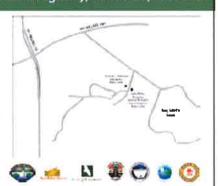
November 13, 2014 | 6:30-8:30 PM

King Gillette Ranch, 26800 West Mulholland Highway, Calabasas, CA 91302

Public Workshop for Proposed Projects for the Enhanced Watershed Management Programs for the Malibu Creek Watershed and the North Santa Monica Bay Coastal Watersheds

Your local public agencies invite you to a workshop to discuss the proposed projects for the Enhanced Watershed Management Programs (EWMPs) for the Malibu Creek Watershed and North Santa Monica Bay Coastal Watersheds as part of the Los Angeles County Municipal Stormwater Discharge Permit. All interested parties are encouraged to attend to be a part of this important and proactive process for our area.

You'll learn about the proposed projects for each of the EWMPs and have an opportunity to provide comments and input regarding the proposed projects and the EWMPs. Comments and input from the workshop will be used in the modification and selection of the proposed projects. Please join us and help us to protect and improve water quality in the region.



EWMP Partners:

County Los Angeles, Los Angeles County Flood Control District, City of Calabasas, City of Agoura Hills, City of Hilden Hills, City of Malibu, City of Westlake Village.

RSVP to https://2014malibuewmpworkshop2.eventbrite.com

PACT

Water conservation efforts pay off: U.S. usage lowest in decades



Changes in irrigation accounted for a substantial part of the national decline in water use. (Brian van der Brug / Los Angeles Times)

By MICHAEL MUSKAL LA TIMES 11/12/2014

Officials say water use in the U.S. fell 13% from 2005 to 2010 to lowest level in more than 45 years

Who contributed the most to the decline in U.S. water use from 2005 to 2010? (It's not individual consumers)

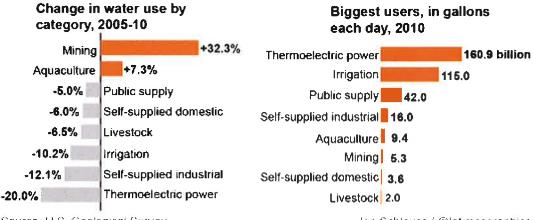
Do you know how many gallons of water you use a day? 89 is the U.S. average

Americans recently passed a milestone when federal officials reported that water use across the nation had reached its lowest level in more than 45 years: good news for the environment, great news in times of drought and a major victory for conservation.

What was surprising in the U.S. Geological Survey report released last week was how little of the 13% decline in national water usage was due to the public cutting back.

Not as thirsty

Power generation and irrigation are responsible for more than half of the country's water use. But those groups used less water in 2010 than in 2005.



Source U.S. Geological Survey

Jon Schleuss / @latimesgraphics

In drought-stricken areas, such as California and other states across the West, consumers are used to frequent warnings about the need to save water. Dry public fountains, limits on lawn watering and official requests for shorter showers have all been aimed at reducing water use at a time when reservoirs are shrinking and streams are running dry.

But it turns out that the public reduced water use by only about 5% from 2005 to 2010, the most recent period measured by the USGS.

The overwhelming savings came from big-scale industrial uses, government investigators found.

Molly Maupin, USGS hydrologist and lead author of the latest water survey, said about 75% of the decline in overall water usage is attributable to changes in electricity generation, and an additional 20% is due to new efficiencies in irrigation.

"Irrigation withdrawals in the United States continued to decline since 2005, and more croplands were reported as using higher-efficiency irrigation systems in 2010," Maupin said. "Shifts toward more sprinkler and micro-irrigation systems nationally and declining withdrawals in the West have contributed to a drop in the national average."

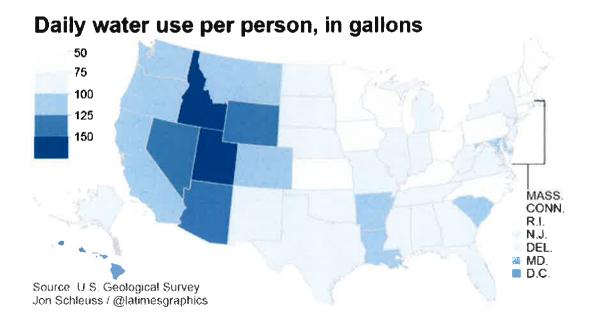
Still, the 5% reduction in public water use is important because it happened even as the population increased by about 4% and the number of people who had access to public water grew.

Per capita use declined to 89 gallons per day in 2010 from 100 gallons in 2005.

"Public supply's decline was significant because it was the first time we have seen that," said Maupin, who cautioned that it is difficult to pinpoint the exact reasons for the decrease. "We are reluctant to say cause and effect because there are so many variables. Surely there is some level of conservation," she said of efforts to curb personal use. "We don't know how much."

In any case, industrial water use is key to understanding the overall decline.

In some cases, manufacturers have adopted techniques such as recycling of water to help lower costs. The 2007-09 recession brought downturns in production, and subsequent reductions in the amount of water needed to cool machines.



A crucial factor, the USGS found, was an increase in the number of power plants built or converted since the 1970s that use more efficient cooling-system technologies. Surveyors based their consumption estimates on flows in and out of 1,290 power plants.

Overall in the U.S., about 355 billion gallons of groundwater and surface water were used per day in 2010, compared with 410 billion a day in 2005.

Twelve states accounted for more than 50% of total water withdrawals. The largest was California, followed by Texas, Idaho, Florida, Illinois, North Carolina, Arkansas, Colorado, Michigan, New York, Alabama and Ohio.

California accounted for 11% of the total withdrawals. Still, the state, the nation's top agricultural producer in terms of cash receipts, was able to sharply cut water use.

Californians in 2010 used an estimated 38 billion gallons of water a day, compared with 46 billion a day in 2005. The reduced use of surface water accounted for the savings; groundwater withdrawals were actually up because of the drought, which forced farmers to increase their reliance on irrigation.

Still, the overall savings was enough to give a big bump to the nation's conservation picture.

"What happens in California has an impact on the national trends," Maupin said.

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Column

Lester Snow is the answer man on the water bond



Patt Morrison
LOS ANGELES TIMES 11/12/2014



Lester Snow heads the private California Water Foundation. (Ashley Jennings)

California overwhelmingly voted for a water bond. What happens now?

Californians, you just voted yourselves a \$7-billion-plus water bond measure. What happens now? Lester Snow can draw you the map of water needs and detail the money being spent. He's navigated state waters for years in a multitude of jobs, among them head of the state's Department of Water Resources and other agencies. He's spent more time on water than Duke Kahanamoku. Today he heads the private California Water Foundation, which supported the bond measure that California now has to spend wisely.

Is the bond measure a major step or an incremental one?

It's funny to say it, but it's both. Passing the bond is so significant, and for every bond dollar, you may get three or four other dollars invested. [But] I also refer to it as a down payment on what needs to be done in California. It gets us started, but it would be a mistake for anyone to think that now that we've passed this bond, our worries are gone.

It would be a mistake for anyone to think that now that we've passed [the water] bond, our worries are gone.- Lester Snow

Some bond projects may not be realized for 10 or 20 years.

Sometimes for the water to manifest from investments takes a while. We have a water system that hundreds of billions have been invested in over the years, and we have been slow to reinvest in it. With the \$7.5 billion, we're jump-starting some of that. We see how shortages can affect the economy and people's lifestyles, so we not only need this bond but to steadily reinvest in the system.

[With] the drought, there's been threatened litigation over transferring a few thousand acre-feet here or there. In the meantime, we discharge 1.5 million acre-feet of wastewater into the ocean instead of reclaiming it. There's money in the bond to reclaim more and more of that water. As the mayor of L.A. has pointed out, there's more room for conservation, and it takes money.

By and large, water is cheaper than most people's cable or cellphone bills. We like it when it's not expensive, but when it's not there, it causes many problems.

Are you concerned that voters who see no immediate result of the bond vote may be reluctant to support any more water infrastructure spending?

What voters expect and deserve is to see some things happen quickly and to see their elected officials talk about the long-term investments for the water supply. There are projects that can happen quickly and show people results: conservation projects, wastewater recycling, capturing urban storm water.

Is there a real correspondence between what the bond money will do and what California water profoundly needs? With thousands of water agencies, our problems are as much about structure as supply.

That's fragmentation. In the L.A. basin there's 88 cities but 400 water providers. [The] bond provides incentives for regional strategies to break down some of those barriers, but it's not the end-all and be-all. The governor earlier this year laid out a water action plan, which pointed out that there is no silver bullet. It can be characterized as an all-of-the-above approach with more attention to diversification of our supplies and our system.

With previous [water] bonds, Proposition 84 and 50, the only way you could get grant money is if you coordinated with your neighbors, instead of everybody doing their own little things with their own little jurisdictions. That started breaking down some barriers. This bond will provide additional funds for continued cooperation and collaboration.

The bond includes \$2.7 billion for ground storage, but it doesn't specify dams or underground storage, which is a ferocious source of partisan battles in Sacramento.

It's likely it will be both. The bond lays out that the funds will go for public benefits associated with storage and assigns the California Water Commission to develop rules and guidelines for storage projects. There's already some surface storage projects that have been under consideration for a long time: the Sites Reservoir in the Sacramento Valley; there's been talk about raising Lake Shasta; a proposal for an expanded reservoir on the upper San Joaquin River.

I think you'll see others coming forward with smaller projects to capture floodwater and recharge it into groundwater basins. I'm confident that while there may be some conflict, this is going to provide California with additional storage throughout the state.

Where might the most resistance to new bond projects come from?

Stuff that you might call conflict I think would simply be competition over funds, and that's actually a healthy thing. Because of the drought, there's more interest in getting projects done. We're going to see a great deal of creativity in implementing the bond.

How much of what the bond is funding will be about moving water around versus creating so-called new water, for example, by reclaiming polluted aquifers like the one in the San Fernando Valley?

The San Fernando groundwater basin has been contaminated and gone unused for some time. There's clearly funds in the bond to help clean it up .That [would] give L.A. more flexibility. Once they clean up that basin, they may be able to use it to store highly treated reclaimed water that's currently being discharged to the ocean. And should we ever have a wet year again, they'll be able to put water in that basin.

Some of these projects depend on matching funds, local, regional or federal. How do you think a GOP Congress might look on that?

We haven't had much in the way of federal investment for a long time. I don't think anybody has planned on federal money, so it really is state and local funds going into these projects.

Is there still hostility from the north toward the south on water issues?

Not like the old days. The conflict and discussion over fixing the delta, which is not part of the bond, can generate those attitudes. But especially because of drought and the impact of climate change, people see we're all lumped more together than they did maybe in the '80s.

California was the only Western state with no plan for managing groundwater. As of September there is statewide regulation of groundwater.

It was the tragedy of the commons, a race to the bottom. You as an individual could invest in this sophisticated storage system and your neighbor could pump out all the water you stored. Now there'll be a structure to keep track of who's pumping, how much, who's putting water in, and therefore [the state will] be able to better manage and incentivize groundwater recharge projects. Where there's a groundwater basin, [the plan] requires a groundwater agency to be set up and to develop a sustainable groundwater plan. [The agency has] the authority to require data to be submitted and to charge fees and allocate pumping if that's necessary. A failure on the part of the local entity can result in the state [water] board coming in.

You said \$3 or \$4 might be invested for every dollar of bond money. Whose money, and for what purpose?

In previous bonds we've seen the local agency proposing the project bring in 80 cents and the bond, 20 cents. Having state money incentivizes people to put out money for projects they've been thinking about for a while.

Does the Legislature have any role in how the bond money is spent?

We've seen with previous bonds that the legislative committees will want to hear from appropriate agencies how they plan to implement the bond, and given the drought, I think the Legislature will want to see timelines: How soon can you get this money out; how quickly can it result in benefits? It was a bipartisan bond. That's not to say there won't be arguments, but I do not see this becoming a political morass. People want to see something get done.

If you were designing a water system from scratch, it would not look like California's.

You have a water system that's evolved over 150 years. If we knew then what we know now, we might have done things differently. But this is reality, so you try to make the best decisions. That's why this bond being so diverse and funding a wide array of water activities is so important. There's no one-size-fits-all.

This interview has been edited and condensed.

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Local Briefs

VENTURA

Midtown group to discuss water use

Residents will hear about ways to reduce water use at Thursday's monthly meeting of the Midtown Ventura Community Council.

Jill Sarick Santos, of Sustainable Ventura, the city's environmental arm, will bring watersaving giveaways and discuss how to use a graywater system. Graywater is wastewater left from sources including showers, dishwashers and washing machines that can be used again to irrigate or flush the toilet.

Vince Kinsch and Cynthia Hartley, of the Ventura Chapter of the Surfrider Foundation, will present "Know your H20," which discusses the link between freshwater and saltwater systems.

Elena Brokaw, the city's director of Parks, Recreation and Community Partnerships, will talk about Ventura's water usage.

Brokaw will also discuss the city's Poo Free Parks program. The program, in place since 2012, is run by a company out of Denver.

The company has been unable to cover its expenses, so since late last year the city has been offsetting the costs, paying \$2,800 per month.

Brokaw said in August the city would be seeking help from community groups or companies to help run the program, or it would have to go.

The meeting will be at 7 p.m. at Cooper Hall, next to Grace Baptist Church, at 65 MacMillan Ave.

For more information go to www.midtownventura. org.

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Heat, drought worsen smog in California, stalling decades of progress



Downtown Los Angeles as viewed from Elysian Park. Many Californians have experienced the jump in pollution as more hazy vistas and bad air days. Others have faced noticeable health consequences. (Mark Boster / Los Angeles Times)

By <u>TONY BARBOZA</u> LA TIMES 11/10/2014

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The uptick has stalled decades of progress toward cleaner air and increased health risks

State's prolonged dry spells have brought more temperature inversions, concentrating pollution near the ground

Heat and extreme drought have worsened smog in California over the last year, stalling decades of progress toward cleaner air and increasing health risks.

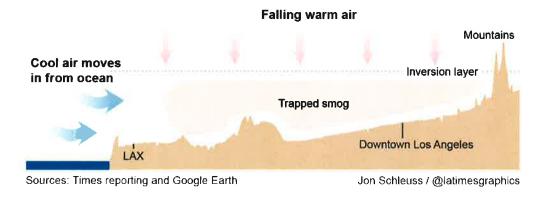
The state's prolonged dry spells have brought more temperature inversions, with a layer of warmer air trapping cooler air below, concentrating pollution near the ground. Mother Nature could clear away much of the bad air with rain or wind, but high-pressure systems have resulted in fewer storms, less circulation and unusually stagnant conditions.

"There's a steady trend of air quality getting better, but layered on top of that is the meteorology, which is a crazy, up-and-down thing that is very hard to predict," said Anthony Wexler, director of the Air Quality Research Center at UC Davis.

Relief could come as soon as this winter — if enough storms blow in to stir up the air and sweep out pollution.

Smog sticks around

Pollution can get trapped in a basin when high pressure prevents air from moving.



Forecasters say a weak El Niño has <u>a 58% chance</u> of developing in the Pacific Ocean this winter and could bring more rain to California, cleansing the air.

"Even absent an El Niño, if we can just get back to a normal winter, air quality will be significantly better," said Seyed Sadredin, who heads the San Joaquin Valley Air Pollution Control District.

Over the winter, the district recorded the worst air pollution in more than a decade. And last week, the valley's fine-particle pollution again jumped to unhealthful levels.

Many Californians have experienced the jump in pollution as more hazy vistas and bad air days. Others have faced noticeable health consequences.

"You see it, and for someone who has breathing problems, you feel it," said Pati Calzada, 27, a college student who lives in the Inland Empire city of Colton, one of the smoggiest areas in the nation.

Both Calzada and her 7-year-old son, Abraham, who was recently diagnosed with asthma, have trouble breathing when pollution levels go up.

"It feels like a weight on my chest, and I know I'm not the only one," she said. Her frustration with polluted air led her to join a Sierra Club campaign to advocate for solar power and other clean energy.

Conditions grew worse, in part, because higher temperatures accelerate the chemical reactions that form ozone, the lung-damaging ingredient in warm-weather smog. In a vicious circle, heat also boosts demand for electricity, increasing smog-forming emissions from power plants.

Hot, dry conditions also have led to increasing numbers of California wildfires, which release more smoke. And dry farmland has been kicking more dust into the air.

There's a steady trend of air quality getting better, but layered on top of that is the meteorology, which is a crazy, up-and-down thing that is very hard to predict.- Anthony Wexler, director of the Air Quality Research Center at UC Davis

When drought caused air pollution to increase across California last winter, conditions were worst in the San Joaquin Valley. Fine particles jumped to their highest concentrations since 2001, more than three times the federal standard of 35 micrograms per cubic meter.

The troubles continued this fall, as the valley and Southern California reported <u>more bad</u> <u>air days</u> from ozone.

Another unusual spell of high temperatures and a strong inversion layer hit the San Joaquin Valley last week, causing fine-particle pollution to build up to dangerous levels. The region's air quality officials are telling residents to stop burning wood and reduce their driving. Activists have called for school sporting events to be canceled to protect children's lungs.

Though air pollution is a year-round problem in California, it peaks in two distinct seasons.

In the summer, ozone is the main pollutant of concern. It is not emitted directly but formed after cars, trucks, power plants and factories release reactive gases and unburned hydrocarbons. Those pollutants cook in heat and sunlight to form ozone, a corrosive gas.

Breathing ozone can harm children's lungs, trigger respiratory problems such as asthma and bronchitis and worsen heart and lung disease. On days with high ozone pollution, hospital visits for asthma rise and the risk of premature deaths increases.

In winter, another type of air pollution called fine particulate matter, or soot, becomes the main problem.

Tiny particles emitted by diesel engines, fires and other combustion sources measure less than 1/30th the width of a human hair. They are of great concern to health experts because they are inhaled deep into the lungs and can impair breathing and damage the heart and blood vessels.

Chronic exposure to fine particles is linked to thousands of premature deaths a year in California, mostly from heart attacks and cardiovascular disease. Most of those fatalities occur in Southern California, where a 2010 economic study found that fine-particle pollution contributes to as many early deaths as traffic accidents.

Pollution regulators have downplayed the recent uptick in smog as a blip in a decadeslong trend of improving air quality.

Peak ozone concentrations in Southern California are down to about one-third of what they were in the 1970s and '80s. The region's fine-particle pollution has been cut in half since measurements began in 1999.

Emissions from cars, trucks, ships, power plants and industrial facilities are falling because of local, state and federal regulations that ensure the air will keep getting cleaner in the long term, regulators say.

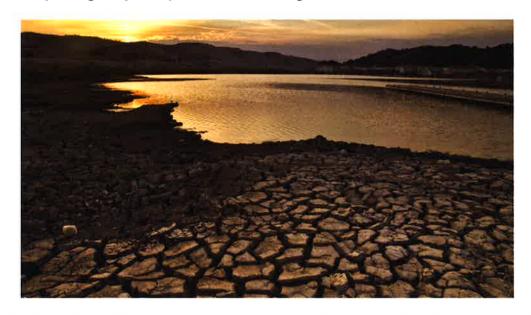
Still, California is far from meeting air quality standards.

To meet a 2032 deadline to comply with current standards, the South Coast Air Quality Management District will have to slash smog-forming gases, called nitrogen oxides, more than 75%, regulators say.

Reaching that level will require near-zero emissions across much of the economy. And in the long term, rising temperatures from climate change will make controlling smog more difficult, posing new challenges in the district, which includes 16.7 million people in Los Angeles, Orange, Riverside and San Bernardino counties.

The San Joaquin Valley faces similar obstacles. Air quality officials say new rules adopted this year place the valley under the nation's most stringent wood-burning restrictions, virtually banning the use of traditional fireplaces during the winter season to control a major source of lung-damaging soot.

Rain only slightly improves drought conditions



Sunrise illuminates the cracked, receding banks and the dropping water levels of Lake San Antonio in Monterey County. (Allen J. Schaben / Los Angeles Times)

By VERONICA ROCHA LA TIMES 11/10/2014

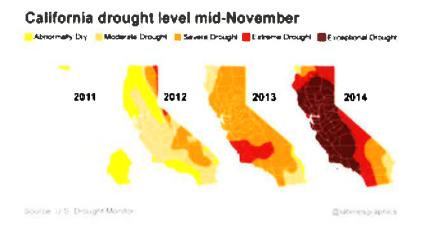
Latest drought monitor report shows slight improvement throughout California

It would take a record wet year, or several above normal rain years, to restore droughthit reservoirs

Recent rain throughout California made only a slight dent on a drought that has chugged along relentlessly for more than three years, according to federal scientists.

And dry conditions are expected to return for the next two weeks.

Rainfall drenched large portions of Northern California, improving stream flows, raising some river levels and spurring the growth of small plants and grasses, according to Matthew Rosencrans, a meteorologist with the National Oceanic and Atmospheric Administration's Climate Prediction Center.



<u>Just how dry is California? Here is every map of California released by the U.S. Drought Monitor since</u> 2011. (Kyle Kim, Thomas Suh Lauder)

The drought eased across the board throughout California, but it was not a dramatic change, according to a U.S. Drought Monitor map.

The map shows the percentage of the state in a severe drought -- the third harshest on a five-level scale -- improved from 95.04% to 94.42 percent.

The percentage of California under exceptional drought conditions -- considered the most extreme --improved from 58.41% to 55.08%.

Although the rainstorms may have brought a sense of relief from the drought, the respite will be brief.

"It's looking bad for the next two weeks," said David Miskus, NOAA's senior meteorologist with the Climate Prediction Center.

The next two weeks will be warm and dry, and rain for the next three months is uncertain. El Ñino conditions, which sometimes bring above normal rains, could form in the Pacific, but the phenomenon would almost certainly be weak if it did.

And it would take a record wet year, or several years of above normal rainfall to restore the state's critically low reservoir levels, Miskus said.

The recent storm, he said, didn't improve snowpack levels in the Sierras.

But at this point, Miskus said Californians will welcome any amount of rain.

"It's got to rain sometime," he said.



From algae sludge in shrinking pools of water to marooned boats on dry, cracked lake beds, California¿s crippling drought has produced stunning images that put the need for rainfall into stark focus. (Jason Wells, Veronica Rocha)

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WASTING NO WATER

Camarillo site makes water-retaining CoolTerra

By Stephanie Hoops Ventura County Star 11/09/2014



Jake Quicksall, director of biochar operations for Cool Planet Energy Systems, points to the processor that turns the company's biochar into an enhanced biochar that is used as a soil amendment called CoolTerra, as he gives a tour at their facility in Camarillo. PHOTOS BY ROB VARELA/THE STAR

In the throes of drought last summer, the city of Thousand Oaks' landscape maintenance supervisor was looking for water-saving ideas and tried a new organic fertilizer on the lawn outside city hall.

He was bowled over by the results.

"The very next day we turned the irrigation down at city hall by half," said the supervisor, Kevin Wilson. "We went from 30 minutes a day four days a week, to 15 minutes a day, four days a week. So we literally cut it in half the next night."

The new product — CoolTerra — is made at a facility in Camarillo and has waterretention capabilities. It contains biochar, which is a form of charcoal produced by heating organic waste matter like wood chips, crop residue, or manure. CoolTerra is a mixture of biochar and other patented elements. Wilson, who is also the city's arborist, said CoolTerra made the soil at city hall act like a dry sponge.

"So it sucks water up and holds it much better," he said.

It also appears to be invigorating microbial activity and reducing the salt content, making for healthier, less stressed plants.

"For me that's very important because as the plants continue to stress through this

drought a lot of plants are being attacked by insects," Wilson said. "So the biochar seems to be helping to break that chain."

CoolTerra is produced by Cool Planet Energy Systems, a 4-year-old private alternative-fuel startup founded in Camarillo. The company was originally launched not to create CoolTerra, but to develop alternative gasoline using plant-based carbon feedstock rather than fossil fuel. Biochar is a bioproduct that resulted from the process of making that fuel and the company is now making use of it as CoolTerra.

Cool Planet was founded in Camarillo but subsequently moved its headquarters to Denver. It kept a local presence, however, and last month unveiled a 20,000-square foot facility in Camarillo that will handle CoolTerra production. Tours of the plant were given to city officials and area farmers who grow high-value crops came and toured, said Jake Quicksall, director of biochar operations.

Quicksall said they've named the production facility Dimitra after the Greek goddess of harvest and agriculture. Dimitra is capable of pumping out enough biochar to fill one Olympic-sized swimming pool every two weeks. "Super sacks" filled with 1.3 cubic yards of raw biochar await processing in tumblers at the facility.

Commercial-scale production is just beginning.

Besides municipalities, Cool Planet expects to sell CoolTerra commercially to farmers growing highvalue crops like strawberries and grapes.

Jan Berk, chief operating officer of San Miguel Produce in Oxnard said they're considering CoolTerra for a trial run on their greens.

The product is available online and by contacting the company. Smaller quantities will likely go to retailers in 10-quart boxes now being sold for \$19.99 online. No retailers have signed on yet but the company is getting close to doing so, said Rick Wilson, the business leader for CoolTerra.

Taking into account California's dearth of water, he said the business is planning an intense "blitzkrieg" marketing campaign to drive CoolTerra sales for use as a soil amendment on turf.

Rick Wilson said there are many reasons the company moved its headquarters to Denver, but he doesn't foresee the company uprooting its CoolTerra business from Ventura County.

"With CoolTerra we recognize that the real market, at least early on, is in California because that's where high value agriculture is," he said.

Also, there's a lot of innovation in Ventura County and great engagement between the community and agriculture, Wilson said. For the long term, he said key parts will remain

in California.

"We're not going to cut back," he said. "We're going to add."

Company managers foresee a need to hire more sales people and shift operators as CoolTerra production ramps up, but no specifics have been released concerning the number of jobs they expect to create at the new facility.

CoolTerra's Camarillo production facility currently employs about 18 people. There are another eight people working at a separate research and development facility in Camarillo.



Jake Quicksall, director of biochar operations for Cool Planet Energy Systems, gives a tour of the growing lab at the company's facility in Camarillo. PHOTOS BY ROB VARELA/THE STAR



Quicksall displays the company's enhanced biochar, CoolTerra, after it's processed.



Quicksall digs into a bag of biochar, the raw material that is processed at the firm's facility in Camarillo and made into material that is used as CoolTerra.



Quicksall displays a box of CoolTerra as he gives a tour of the Camarillo facility.

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Across The State

Walnut Creek

County looks to hike water stealing fines

Contra Costa County officials are looking at raising the fine for stealing water to \$250 from \$25 after residents reported seeing people tapping into fire hydrants late at night, a crime that appears to be on the rise amid California's drought.

The Contra Costa Times reports the Contra Costa Water District board also is considering installing security cameras to monitor hydrants and deter water thieves.

District spokeswoman Jennifer Allen says officials suspect people are taking the water for homes with dried-up wells.

The Times says residents aren't the only ones taking water illegally.

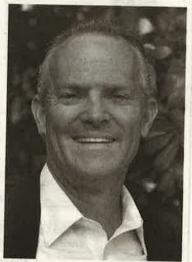
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Incumbent Glen Peterson



Incumbent Lee Renger



New board member Jay Lewitt

Steinhardt Loses Water Board Seat

In an election focused on water conservation and a new water storage tank, the Las Virgenes Municipal Water District board saw two incumbents reelected and a new board member take the place of a controversial member.

Glen Peterson, a retired realtor, Division 2 Director and Vice President of the Municipal Water District, was reelected to his seat with 60% of the votes.

Challenger Hugh Wahler received 39.79%. Peterson has served on the water district board since 1987.

Incumbent Lee Renger, a Division 3 Director who has been on the board since 2005, was releected to his seat with almost 60% of the votes versus challenger Michael Wilk, who turned out 40%.

The big turnover came in Division 5 where voters did not return one-term member Barry Steinhardt.

Steinhardt has been a vocal and contentious opponent of the new \$13 million water tank (as was Wilk). Taking his seat is president of Every Promotional Product in Agoura Hills Jay Lewitt. Lewitt supported the water tank. "Jay has pledged to restore order and dignity to board meetings and seek consensus on divisive issues," said Jess Thomas, President of the Old Agoura Homeowners Association.

Las Virgenes Enterprise 11-6-2014