

# California Drought Tests History of Endless Growth

A punishing drought is forcing a reconsideration of whether the aspiration of untrammeled growth that has for so long been the state's engine has run against the limits of nature.

**Adam Nagourney, Jack Healy and Nelson D. Schwartz, New York Times, 4-4-15**

LOS ANGELES — For more than a century, California has been the state where people flocked for a better life — 164,000 square miles of mountains, farmland and coastline, shimmering with ambition and dreams, money and beauty. It was the cutting-edge symbol of possibility: Hollywood, Silicon Valley, aerospace, agriculture and vineyards.

But now a punishing drought — and the unprecedented measures the state announced last week to compel people to reduce water consumption — is forcing a reconsideration of whether the aspiration of untrammeled growth that has for so long been this state's driving engine has run against the limits of nature.

The 25 percent cut in water consumption ordered by Gov. Jerry Brown raises fundamental questions about what life in California will be like in the years ahead, and even whether this state faces the prospect of people leaving for wetter climates — assuming, as Mr. Brown and other state leaders do, that this marks a permanent change in the climate, rather than a particularly severe cyclical drought.

This state has survived many a catastrophe before — and defied the doomsayers who have regularly proclaimed the death of the California dream — as it emerged, often stronger, from the challenges of earthquakes, an energy crisis and, most recently, a budgetary collapse that forced years of devastating cuts in spending. These days, the economy is thriving, the population is growing, the state budget is in surplus, and development is exploding from Silicon Valley to San Diego; the evidence of it can be seen in the construction cranes dotting the skylines of Los Angeles and San Francisco.

But even California's biggest advocates are wondering if the severity of this drought, now in its fourth year, is going to force a change in the way the state does business.

Can Los Angeles continue to dominate as the country's capital of entertainment and glamour, and Silicon Valley as the center of high tech, if people are forbidden to take a shower for more than five minutes and water bills become prohibitively expensive? Will tourists worry about coming? Will businesses continue their expansion in places like San Francisco and Venice?

"Mother Nature didn't intend for 40 million people to live here," said Kevin Starr, a historian at the University of Southern California who has written extensively about this state. "This is literally a culture that since the 1880s has progressively invented, invented and reinvented itself. At what point does this invention begin to hit limits?"

California, Dr. Starr said, "is not going to go under, but we are going to have to go in a different way."

An estimated 38.8 million people live in California today, more than double the 15.7 million people who lived here in 1960, and the state's labor force exploded to 18.9 million in 2013 from 6.4 million people in 1960.

California's \$2.2 trillion economy today is the seventh largest in the world, more than quadruple the \$520 billion economy of 1963, adjusted for inflation. The median household income jumped to an estimated \$61,094 in 2013 from \$44,772 in 1960, also adjusted for inflation.

"You just can't live the way you always have," said Mr. Brown, a Democrat who is in his fourth term as governor.

"For over 10,000 years, people lived in California, but the number of those people were never more than 300,000 or 400,000," Mr. Brown said. "Now we are embarked upon an experiment that no one has ever tried: 38 million people, with 32 million vehicles, living at the level of comfort that we all strive to attain. This will require adjustment. This will require learning."

This disconnect, as it were, can be seen in places like Palm Springs, in the middle of the desert, where daily per capita water use is 201 gallons — more than double the state average. A recent drive through the community offered a drought-defying tableau of burbling fountains, flowers, lush lawns, golf courses and trees. The smell of mowed lawn was in the air.

But the drought is now forcing change in a place that long identified itself as "America's desert oasis." Palm Springs has ordered 50 percent cuts in water use by city agencies, and plans to replace the lawns and annual flowers around city buildings with native landscapes. It is digging up the grassy median into town that unfurled before visitors like a carpet at a Hollywood premiere. It is paying residents to replace their lawns with rocks and desert plants, and offering rebates to people who install low-flow toilets.

At the airport that once welcomed winter-chilled tourists with eight acres of turf and flowers, city officials are in the early stages of replacing the grass with cactus, desert bushes and paloverde trees. The city had hoped to replace the entire lawn, but the project's \$2 million price tag forced it to begin instead with three acres, said David Ready, the city manager.

"Years ago the idea was, come to Palm Springs, and people see the grass and the lushness and the green," Mr. Ready said. "We've got to change the way we consume water."

## Fallow Fields

Other places face different threats to their way of life. Mayor Robert Silva of Mendota, in the heart of the agricultural Central Valley, said unemployment among farmworkers had soared as the soil turned to crust and farmers left half or more of their fields fallow. Many people are traveling 60 or 70 miles to look for work, Mr. Silva said, and families are increasingly relying on food donations.

"You can't pay the bills with free food," he said. "Give me some water, and I know I can go to work, that's the bottom line."

Richard White, a history professor at Stanford University, said the scarcity of water could result in a decline in housing construction, at a time when there has been a burst of desperately needed residential development in cities like Los Angeles and San Francisco.

"It's going to be harder and harder to build new housing without an adequate water supply," he said. "How many developments can you afford if you don't have water?"

Greg Smith, 51, a web developer who works from his home in Escondido, said he was considering moving to Washington State because of his distress at what he described as the state's slow response to the drought.

"If this gets out of control, I'll probably end up leaving," Mr. Smith said. "This has been a problem for as long as I've been alive."

"I've watched this state get trampled by developers," he added. "They keep building homes, but where's the water going to come from?"

The governor's executive order mandates a 25 percent overall reduction in water use throughout the state, to be achieved with varying requirements in different cities and villages. The 400 local water supply agencies will determine how to achieve that goal; much of it is expected to be done by imposing new restrictions on lawn watering. The 25 percent reduction does not apply to farms, which consume the great bulk of this state's water.

State officials signaled on Friday that reductions in water supplies for farmers were likely to be announced in the coming weeks, and there is also likely to be increased pressure on the farms to move away from certain water-intensive crops — like almonds.

## A New Normal

Mayor Eric Garcetti of Los Angeles, pointing to Mr. Brown's executive order and his own city's success in reducing water consumption, said he was confident that the state would find ways to deal with an era of reduced water supplies, in a way that would permit it to continue to grow and thrive.

"We have to deal with a new normal," Mr. Garcetti said. "That said, do we have enough water to sustain life here? Absolutely. Do we have enough water to grow economically? Absolutely."

"Cities that are much drier and truly desert — Phoenix, Las Vegas — have shown the ability to have economic growth," he said.

Allan Zaremba, president of the California Chamber of Commerce, rejected the idea that the drought and the state's response to it would prompt industries to move away or stop adding jobs. "The rest of the economy is managing it, learning how to deal with it," he said.

This is hardly the first crisis California has faced; there has always been a tension between the natural beauty and delights of living in California and the external threats, be they the dizzying ups-and-downs of the state budget, the rolling blackouts during the energy crisis in 2000 and 2001, the earthquakes or periodic droughts.

"People on the East Coast always want to say that the glow of California is gone," said Felicia Marcus, the head of the State Water Resources Control Board, which is putting into effect the 25 percent reduction in water use ordered by Mr. Brown last week. "It isn't. I don't see it as any diminishment about our prospect of growth. There has to be a more evolved way about using the resources we have. We have a long way to go before we have tapped out our resources."

The critical question is the extent to which Mr. Brown has succeeded in persuading people here to shake long-held habits and assumptions.

"I'm not going to stop watering," said Matthew Post, 45, referring to the gardens around his Benedict Canyon home. "The state does not know how to arrange the resources they have, and so we have to pay for it," he said. "They say that they will raise the prices because there is a drought, but when the drought ends, will they reduce the prices?"

Much like the Gold Rush more than 150 years ago or the rise of Silicon Valley, the assumption of cheap and abundant water has been a crucial part of California's identity, history and economy.

And until recently, it seemed that the California dream was sustainable: booming cities, wide lawns in the suburbs, green golf courses in an otherwise parched landscape and, above all, a vibrant agricultural sector in places not much wetter than a desert.

Although there were serious droughts in the mid-1970s and late 1980s, the current water shortage and last week's executive order are a turning point for the state, and the West more generally, water experts say.

"The idea, at least until the latter part of the 20th century, was that water would be cheap and plentiful and the focus was on developing new supplies," said Heather Cooley, water program director for the Pacific Institute, an environmental research group based in Oakland. "Folks realize we have now reached the limits of supply, so the focus is on demand."

While the mandatory cuts in home water use are the first ever, efficiency has been slowly gaining ground in recent decades. Total water use in Los Angeles, San Francisco and many other urban areas is now lower than it was in 1980, despite the huge economic growth and population increases.

The latest restrictions represent a cultural change, as well as a lifestyle one, going well beyond taking shorter showers or forgoing the Sunday afternoon ritual of hosing down the family car.

Half of residential use is outdoors, primarily lawns, Ms. Cooley said. "And what Californians see as beautiful," she said, "has been a lawn that has been the standard for front yards and backyards."

Now, with utilities paying people to replace thirsty traditional grass turf with water-sipping native plants and other drought-tolerant shrubbery, long-held aesthetics are shifting. "This will change what Californians see as beautiful," she said.

But even a significant drop in residential water use will not move the consumption needle nearly as much as even a small reduction by farmers. Of all the surface water consumed in the state, roughly 80 percent is earmarked for the agricultural sector.

"The big question is agriculture, and there are difficult trade-offs that need to be made," said Katrina Jessoe, assistant professor of agricultural and resource economics at the University of California, Davis.

Bill Melzer, 72, a bond broker walking his dog on a sunny morning in Golden Gate Park in San Francisco, said he was worried about the drought, about the prospect of higher fines for using too much water and about what might happen to the agriculture industry. But he said he was not worried about the future of his state.

"The dream of California now is probably different than back in the 1960s," he said. "Now it's more financial opportunity. I think before it was what we're looking at now — great weather, beach weather, tremendous diversity of lifestyle. Really, if you cannot find your lifestyle in this state, there is something wrong with you."

Dr. Starr, the University of Southern California historian, said the crisis would force California to do what was needed to carry on. "Our destiny is not just to be a fantasy place," he said. "As much as we enjoy the good life in California, we have to come to terms with Mother Nature, with our arid environment."

“Every time California has a problem — we ran out of electricity in the early 2000s, then we ran out of money, and now we are running out of water — people say California is over,” Dr. Starr said. “It’s not over. It’s too important a part of American culture to be over. But it will change itself.”