CALIFORNIA DROUGHT
EMERGENCY CONSERVATION REGULATIONS
for Hotels and Motels

1. Restaurants and other food service establishments can only serve water to customers on request.
2. Hotels and motels must provide guests with the option of not having towels and sheets laundered daily.

Following the lowest snowpack ever recorded, Governor Edmund G. Brown, Jr. announced actions that will save water, increase enforcement to prevent wasteful water use, streamline the state’s drought response and invest in new technologies that will make California more drought resilient.

"Today we are standing on dry grass where there should be five feet of snow. This historic drought demands unprecedented action," said Governor Brown. "Therefore, I’m issuing an executive order mandating substantial water reductions across our state."

For more than two years, the state’s experts have been managing water resources to ensure that the state survives this drought and is better prepared for the next one. For the first time in state history, the Governor has directed the State Water Resources Control Board to implement mandatory water reductions to reduce water usage by 25%. This savings amounts to approximately 1.5 million acre-feet of water over the next nine months, or nearly as much as is currently in Lake Oroville.

To save more water, the order will also:
- Replace 50 million square feet of lawns throughout the state with drought-tolerant landscaping;
- Direct the creation of a temporary, statewide consumer rebate program to replace old appliances with more water- and energy-efficient models;
- Require campuses, golf courses, cemeteries and other large landscapes to make significant cuts in water use; and
- Prohibit new homes and developments from irrigating with potable water unless water-efficient drip irrigation systems are used, and ban watering of ornamental grass on public street medians.

Every Californian, all hoteliers and every US resident should take steps to conserve water. To learn more, see saveourwater.com.

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

Some hotels have gone beyond simply installing low-flow shower heads and urging guests to reuse towels. In the hotel industry, being green sometimes means ripping out the greenery. The Interscontinental 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, the goal is not just to save water or money. It’s about creating an eco-friendly image to appeal to environmentally-minded guests.

"It's not a huge savings," Steve Choe, general manager of the Interscontinental, 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 US, 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 in-room measures are common in hotels because local utilities and government agencies offer rebates for water-savings equipment.

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 as 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 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.

State water board issues revised drought regulations for Californians

In response to numerous complaints, state regulators issued a revised plan for California’s first-ever mandatory water cuts, emphasizing the need for urgent action as summer looms. The drought, which started in 2012, could persist for years, warned Felicia Marcus, chairwoman of the State Water Resources Control Board. We know we don’t know when it will end,” she said as the board released a revised blueprint for enforcing Gov. Jerry Brown’s executive order that Californians by next February reduce urban water use 25% compared with 2013 levels.

The board’s changes trimmed conservation targets for some communities with a track record of saving water, while slightly increasing the required cuts for the thirstiest cities. Water suppliers that recorded the lowest residential per-capita water use in July, August and September of last year will have to cut only 8%. They include San Francisco, Santa Cruz and Seal Beach. Communities with the highest per-capita numbers during that period, including Arcadia and Beverly Hills, have to chop consumption by 36%. Los Angeles and Long Beach, which under the first draft of rules would have had to reduce use by 20%, were assigned a lower target of 16%.

The emergency proposal could change further before the board formally adopts it early next month, officials said. The state board will begin tracking compliance in July, when June’s use is reported, and will perform monthly checks on the more than 400 urban water suppliers that have to comply with the order. Under the board proposal, regulators could nudge underachievers to impose more outdoor watering restrictions and change their water rates to encourage conservation. The board could also fine agencies up to $10,000 a day for noncompliance.

“Those who are using the most have the easiest way to go because [it is] primarily outdoor irrigation,” Marcus said. “And that, frankly, has been our top priority here because that’s what you can reduce without undue economic or personal impact.”

State officials estimate that the 25% reduction in urban use would save about 1.3 million acre-feet of drinking water over the next nine months. That is more than twice what the entire city of Los Angeles uses in a year.

Brown released his executive order more than a year after he asked for a voluntary 20% drop in water use that most parts of the state failed to achieve. With a record-low snowpack, depleted reservoirs and the onset of another parched year, the governor imposed the first statewide restrictions on water use in California history. The preliminary framework for the regulations, released this month, was greeted by a flood of complaints from local water districts that grumbled that the cuts were unreasonable.

But Brown, who appoints the five-member state water board, is standing firm. “From everything I can see here, it’s attainable,” he said after meeting with business leaders in Sacramento. “Maybe we have to do it differently. We don’t do it all in one day.” The board responded to some of the criticisms contained in more than 250 comments by modifying parts of the proposal. It expanded the range of required cuts from four categories to nine, and assigned water districts to those tiers based on three months of water use last summer, rather than just September 2014. Increasing the tiers “better reflects the past conservation efforts of many water suppliers,” said Caren Trgovcich, the board’s chief deputy director.

High and low water use is scattered around the state. The thirstiest users include Arcata on the North Coast, Cambria on the Central Coast and the unincorporated area of East Los Angeles. A number of Central Valley towns, including Merced, Modesto and Redding, joined affluent Southern California communities in the tier of heaviest users. The changes altered conservation goals for some, but not all, communities. Sacramento is one of the cities that has to cut more. It was bumped from the 25% target to 28%. Although the state capital has reduced water consumption significantly in the last year, residential water use last summer was 146 gallons per person per day, compared with 91 gallons in LA.
California’s Water Situation is Beyond an Emergency

California’s water situation is beyond an emergency, according to Healdsburg resident Dave Howard. He and his sons returned from a “ski trip” in Northern California. “The peaks are as bald as they normally are in August! Where’s the snow pack that’s supposed to be providing us water all summer? It’s zero, folks. There is nothing there,” he said. They proceeded on to Northstar ski resort. On a normal year there are more than a hundred runs. The temperatures are low enough and Northstar is making its own snow. Dave dropped his sons off to go ahead.

“They did one run, then called me, and said, ‘Dad, we’re done. This is stupid. There is only one run worth doing and everyone is on it. This is not even worth spending any time on,’” said Dave. He added, “Northstar is scraping for their lives. Where’s their spring skiing? It doesn’t exist. There in March, they’ve had a bad season already and it’s not going to get any better. There’s no hope on the horizon for those guys.”

5 Things to Know About California’s Drought

Here are five things to know about California’s drought, now in its fourth year:

1. The Sierra Snowpack Is Abysmal

Normally at this time of year, the snowpack in the Northern California mountains is piled several feet high—ready to melt into a network of reservoirs. But in measurements taken today, the snow water equivalent in the mountains stood at a paltry 5% of normal—the lowest ever recorded. Water managers are alarmed, because the snowpack levels have been literally melting away each year by this date—from 171% of normal in 2011, to 52% in 2012, 42% in 2013 and a then-record low of 25% last year.

2. Why Does Snowpack Matter?

In California, nearly one-third of the state’s water supplies come from the snow that blankets the Sierra Nevada and other mountain ranges each winter. California’s network of reservoirs was designed to capture the water from snow as it melts in the spring. But with almost no snow to melt this year, reservoirs that stand at around half empty already aren’t expected to get much more. That’s problematic because water demand typically peaks in the warmer summer months, and California’s rainy season doesn’t start again until the fall.

3. What is California Doing?

Gov. Jerry Brown has directed the state to attack the drought problem on a number of fronts. He took his most drastic action to date by signing an order requiring mandatory water cuts—for the first time ever on a statewide basis—to achieve a 25% savings in potable urban consumption over the next nine months. The action falls short of household rationing, which may come if the drought continues, but the governor did call for water reductions by large campuses, golf courses and cemeteries. The mandatory cutback comes after the governor’s call a year ago for voluntary conservation has failed to meet goals. Because some cities have done a better job conserving than others, Gov. Brown said greater reductions would be sought in those places that lag behind. Those likely would include communities such as in Southern California which have estate-sized lots that use a high amount of landscape irrigation.

4. What Else Is Being Done?

In addition to the mandatory reductions, Gov. Brown called for increased enforcement against water waste, investment in new water-saving technology and replacement of 50 million square feet of lawns throughout the state—the equivalent of about 900 football fields—with drought-tolerant landscaping. The move toward drought-tolerant landscaping, also called xeriscaping, is already widespread in southwestern cities such as Las Vegas, but has been slower to take off in California. His order also prohibits new homes and developments from irrigating with potable water unless efficient drip systems are used, and bans watering of ornamental grass on public street medians.

5. Is California’s Drought a Harbinger of Things to Come?

California is historically a drought-prone state, but the current four-year dry spell is unusual in recorded history in both its length and severity. Many scientists say the climate appears to be warming, causing snowpacks to melt faster than they normally would even in wet years. But in dry years, the combination of little snow and warmer temperatures is creating dangerously high wildfire conditions, a problem shared by other Western states. In fact, much of the West is experiencing drought conditions, which also extend into parts of the Midwest, including Minnesota. If the US as a whole is getting drier, that could present a challenge to managing water supplies.

A Rain Revolution for Dry, Thirsty L.A.

To beat the California drought, the city is trying to capture more storm water, restore a river and learn from the past.

A fast-moving Pacific storm swept across northern California and down the coast to Los Angeles last week, bringing a rare rain delay to Dodger Stadium in the middle of the season opener—and some relief to the vast urban population suffering from the state’s severe drought.

Unlike thirsty cities of the past—such as ancient Carthage in Tunisia, which meticulously captured every drop of its scant rain—metro Los Angeles wasted much of the 0.36 inch that fell on April 7. Flowing across miles of highways, rooftops and parking lots, the liquid manna made its way to L.A.’s ubiquitous, concrete storm gutters, which then rushed it away to the Pacific Ocean.

This was entirely by design. Over the course of the 20th century, city leaders worked to banish rainfall to protect
Angelenos from a very different sort of disaster. Before engineers built mammoth flood-control dams and turned the sinewy L.A. River into a 54-mile storm drain, fierce floods had routinely washed away homes and killed residents of the fast-growing city.

Large-scale flood control saved lives, but it also carried two unhappy and unintended consequences. In L.A., as elsewhere, storm water running off filthy streets and car parks has become a major source of pollution, fouling beaches, bays and rivers. In addition, rain captured and redirected this way couldn't be used to quench thirst in dry times.

Today, an estimated 85% of Los Angeles is urbanized—65% of it covered in asphalt and concrete. This keeps rainfall from seeping back into the ground to top off aquifers and makes it unavailable for drinking water. The Arid Lands Institute at Woodbury University in Burbank estimates that L.A.'s massive flood-control system shunts some 520,000 acre-feet of rainfall to the Pacific Ocean each year—enough to supply water to perhaps a half million families.

Fortunately, L.A. has made some progress in restoring the balance. The city that has long represented concrete sprawl at its most dystopian is changing its relationship with rain. From individual backyards to college campuses, many Angelenos are installing cisterns and taking sledgehammers to sealed surfaces so that floodwaters can drain more naturally and rain can return to the aquifers.

The city was already at work on the long-term dream of restoring the L.A. River, but this drought has made clear that won't be enough. “The work on the river is incomplete without also working on the water that falls in the foothills, in the low-density residential fringes, in the high-density core, in the commercial and industrial areas, in the airport,” says Hadley Arnold, executive director of the Arid Lands Institute. “The idea is to see water not in a 54-mile line, but in a field.”

That is a massive undertaking. Aiming to stem both pollution and the city's reliance on imported water from the Sierra Nevada mountains to the north and the Colorado River—high-cost, high-energy supplies increasingly limited by drought—the Los Angeles Department of Water and Power has launched a major retrofit of its storm-water system. Engineer Mark Hanna, a member of the project's technical team, estimates that L.A. could source a third of its water locally—up from a tenth today. The plan includes massive “spreading grounds” (gravel-lined pits that allow rain to percolate back to aquifers) on publicly owned lands that absorb the most rain; smaller neighborhood infiltration basins; and incentives for filtration on private property. “When you think of the scale, we can do 1,000 neighborhood infiltration basins, we can do 100,000 rain gardens,” Mr. Hanna says. “It's an enormous amount of water saved.”

Another source of water: Using less of it. L.A.'s water use per capita had been in steady decline for decades, despite its population growth, but a new study from the UCLA Institute of the Environment and Sustainability shows that demand has ticked up since 2011. The study’s main author says Angelenos used about 130 gallons of water a person every day as of July 2014. Mayor Eric Garcetti released a new plan last week that aims to cut that to 105 gallons a day by 2017.

Meanwhile, Ms. Arnold and her fellow green architects and engineers see L.A. as the great Western test for what they call “drylands design.” They hope to make rain a centerpiece of architecture, building codes and zoning laws. They are looking to successful strategies of the past, from the sharing model of 19th-century Mormon irrigation districts in Utah to the extensive cistern works of ancient Carthage. And they are developing digital tools to help arid communities design and build in ways that capture, filter and distribute rainfall. The big question: What if it doesn’t rain?

Even in severe drought, Mr. Hanna says, “it does rain, and it will rain. And when it does, unless things go really strange on us, the rain will tend to fall in the mountains and gather in the canyons and accumulate in the low spots.” However much comes down, he stresses, “We need to capture every drop.”

California's Water Woes Are Priceless
A case study in how politics precludes a rational solution to the problem of drought.

California’s drought is frightful and a challenge for an 800-word column, since the problem can be solved in five words: charge realistic prices for water.

If homeowners paid two pennies a gallon instead of 0.5 cents, they might take shorter showers and be more parsimonious with their lawns, but their lives wouldn’t change materially. If farmers found it remunerative to reduce by one gallon the 3.5 it takes to grow a lettuce, who doubts they'd make it work.

Yet for all the agonizing of the TV news and Gov. Jerry Brown, the appetite for a price solution is not only nil, it is undiscussed except by bloggers and op-ed writers. Movie fans know why: “Forget it, Jake, it's Chinatown”—California’s convoluted water politics. Imposing realistic prices on urban dwellers might be feasible, but up would go a cry, “What about farmers?” Then politicians would face a skein of favoritism and log-rolling practically beyond the power of democratic politics to unravel.

Let’s start with basics. The original market for water was the market for land—land with water was worth more. In California, two large state and federal projects, the State Water Project and the Central Valley Project, have long been in charge of aggregating water in the north and allocating it to various users in southern California, which makes water political. A third system, the Colorado River system, is also part of the allocative scrum, involving California and six other states.

By virtue of these systems, government also decides how much water will continue to flow in natural channels, which turns the environment (aka the delta smelt) into an interest group too.

Right now, farmers receive their public water through occult combinations of hereditary rights, political lobbying and an emergency market of transferable water rights that politicians keep threatening to kill. To Americans, Sens. Dianne Feinstein
California’s four-year drought is putting a new spotlight on a plentiful, but costly water alternative: ocean water, minus the salt. This Southern California beach city may spend up to $40 million to update and reactivate a desalination plant it mothballed after another drought ended about 24 years ago. With its local reservoirs at less than 30% of capacity, the City Council voted in September to pursue reopening the facility, which can turn sea water into the equal of nearly three-fourths of Santa Barbara’s normal demand for drinkable water.

While desalinated water will cost about a third more than the city’s imported freshwater supplies, Mayor Helene Schneider said other options, including more conservation, have been exhausted for the city of 90,000. “It should be the source of last resort—and the reality is we are getting to that place of last resort,” Ms. Schneider said.

Desalination is widely used in other parts of the world, including the Middle East, but has been slower to catch on in the US. One reason: It takes a great deal of electricity to separate the salt from water, making the process unattractive for communities that have cheaper sources. In California, desalination commonly takes place by a process called reverse osmosis, which entails running ocean water through permeable membranes to separate out salt. The salt is returned to the ocean as a brine solution.

Poseidon Water, a Boston company that develops water systems, is using $1 billion in private financing to construct a desalination plant in Carlsbad, CA. It aims to provide the San Diego County Water Authority with about 8% of its water, at a cost up to twice that of water the agency imports from northern California. Israeli-based IDE Technologies will operate the facility under contract with Poseidon.

With no end in sight for the drought, more communities are looking to desalination. The Orange County Water District in January voted to negotiate to buy water from another $1 billion Poseidon plant, to be built in Huntington Beach, CA, pending final permits. The district, which provides water to agencies that serve 2.4 million customers, needs the supply to help refill an aquifer that gets drained down during the region’s frequent dry spells, board President Cathy Green said. “People are looking at sustainable resources, and that’s why we’re looking at desal,” said Ms. Green, also a former Huntington Beach mayor.

As of 2013, there were 26 desalination plants in California—up from 18 in 2006, according to the most recent data. Some are operated by government authorities while others are privately run. In the Central Coast town of Cambria, water managers in November got a desalination plant running six months after filing an emergency request with the state. When local wells sank to dangerously low levels. The $9.5 million plant produces water from an aquifer that has become brackish from seawater. “There was a clarity that we needed to move now,” said Gail Robinette, board president of the Cambria Community Services District that serves the town of about 7,000. The district, she said, already had taken drastic conservation measures.

Critics of desalination contend the plants hurt the environment by, among other things, using large amounts of electricity and sucking fish eggs and microorganisms into water intake pipes.
that often rest in the open ocean. “We think it’s the stupidest, most environmentally harmful water alternative possible,” said Kira Redmond, executive director of Channelkeeper, an environmental group in Santa Barbara. Plant operators say the intake pipes are equipped with screens to minimize ocean kill. Some plants, including one near Monterey, CA, proposed by a subsidiary of American Water Works Co., use pipes below the ocean floor to reduce fish kill. The $343 million plant, which is nearing final regulatory approval, would produce nearly half the water needed for about 100,000 residents on the Monterey Peninsula.

Critics also contend the costs are excessive given how little water the plants produce. “It would take putting a plant every 2 to 3 miles in Southern California to equal what we get from the mountains,” said Conner Everts, co-chairman of the Desal Response Group, a non-profit in Santa Monica, CA. For many communities, the higher costs will be borne by taxpayers like Steve Kellogg, a 75-year-old retired biology instructor in Cambria. To help pay for that town’s new plant, his bill for two months of water use jumped 20% to $112. “To me, it’s not that big a deal,” Mr. Kellogg said. “It’s nice to have the backup when we move to the next crisis.”

Industry supporters say the costs have dropped and are likely to continue to decrease as technology advances. Desalination, they add, won’t ever completely replace other water supplies. “It’s never going to be a silver bullet, but it will be an important tool in the toolbox,” said Scott Maloni, a Poseidon vice president of project development overseeing the California plants.

Why Food Prices Are Drought-Resistant
California farmers are using a variety of tactics to stay competitive in a global marketplace.

California’s drought is raising concerns about whether fresh produce grown in the Golden State could run short, potentially raising prices nationwide. The reality is that there was little jump in produce prices last year, and consumers should expect only slight increases in 2015. To appreciate why, one must understand a bit about the geography, water infrastructure and economics of California agriculture.

The drought hasn’t affected California’s diverse regions uniformly. Most crops come from two areas: the Central Valley, including the Sacramento and San Joaquin valleys; and the coastal region, including the Salinas Valley, which is often dubbed America’s “salad bowl.”

The Sacramento and San Joaquin valleys are home to significant production of alfalfa, silage, rice, cotton and other so-called field crops, but are also a major source of fresh produce, including peppers, melons, grapes, oranges, tree nuts and tomatoes. Farmers in these areas have typically relied on a mix of pumped groundwater and surface water deliveries via both the Central Valley Project—a huge network of dams, reservoirs and canals—and the larger California State Water Project. Most farmers, however, will receive no water from the CVP for the second year in a row, and the SWP is delivering only a fraction of normal allocations.

This, coupled with much higher groundwater pumping costs as more and deeper wells are required, has forced many farmers to shift out of thirsty field crops.

But this decreased production has minimal effects on food prices because California accounts for a small share of the supply, or because these crops affect food prices only indirectly. For example, fewer acres of corn silage makes it more expensive to feed milk cows, but the subsequent effect on the price of cheese is small. Fresh produce, which generates high revenue per unit of water consumed, continues to be planted.

In the coastal region and the Salinas Valley—where crops include strawberries, avocados, lettuce, celery, cauliflower, broccoli and wine grapes—farmers do not receive surface water from the CVP or the SWP. Instead, rainfall is stored in local reservoirs or underground aquifers. Lake San Antonio sits at 5% capacity, and Lake Nacimiento at 29%. But groundwater is still available and farmers find it economical, given the value of the produce they grow.

Roughly half of California’s water flows undiverted for human use. Another 40% goes to agriculture, and the remaining 10% to cities. The environment requires a certain baseline of water that cannot be reallocated in a drought. Urban use is small and hard to change much, though Democratic Gov. Jerry Brown’s recently announced 25% mandatory reduction may help some. The bulk of water cutbacks will fall on agriculture, but plumbing and economics determine where they will be made.

California voters passed a $7.5 billion water bond measure last fall, with $2.7 billion going toward increased storage. Legislation allowing regulation of groundwater will be implemented gradually over the next several years. These solutions will help, eventually.

Some farmers are adjusting planting schedules and shifting crops between growing regions to adapt. Others are rerouting water from annual field crops, which can be left unplanted for a year or two, to permanent crops such as fruit and nut trees. These adjustments assure a reliable supply to consumers, but they raise prices. Even so, this is a small factor compared with other costs. Produce prices are more likely to be influenced by labor shortages and the increase in California’s minimum wage in January 2016 to $10 an hour from the current $9. Governments in the region could scare off produce farmers if they were to place tight restrictions on irrigation practices. But that seems unlikely, at least for now.

So what does this mean for consumers? Even if water remains short over the next decade, an adequate supply of fresh fruits and vegetables should not be a concern. In a global market, produce suppliers from the US, Mexico, Chile and beyond compete to keep prices low. The rising cost of water in California is likely to increase the cost of production over time, and that will be reflected in gradually higher retail prices. But Golden State farms will remain reliable suppliers of the produce that consumers have come to expect.

York, Tim, and Daniel A. Sumner, Why Food Prices Are Drought-Resistant, The Wall Street Journal, April 18, 2015
How to save on energy management

In the US, hotels spend in excess of $7.5 billion on energy each year according to the US EPA. This translates to an average spend of nearly $2,200 per available room each year on energy by the more than 47,000 hotels and motels in America, which in turn accounts for around 6% of all domestic hotel operating costs. Saving on energy costs equals a savings directly to the bottom line.

Robert Attaway, director of engineering for the Westin Buckhead Atlanta, has been continuously working on making his hotel the most efficient it can be in the past 16 years he's been with the property. In the last five years, he has been collaborating with the hotel's owners to keep energy consumption down. "If you waste energy, you're wasting money," he said. "But with increasing energy efficiency, we can actually increase guest comfort and save money."

Starwood Hotels and Resorts recently implemented a “30/20 by 20” program to reduce energy use by 30% and cut water consumption by 20% by 2020 at every property. "We really think of energy efficiency by data first," said Andrea Pinabell, vice president of sustainability at Starwood Hotels and Resorts Worldwide. "We track energy, water and waste, and then use that data to develop a multi-faceted approach to reduce our impact."

Starwood Hotels enabled a third-party energy and water audit in 2011 and looks for a return on investment of less than a year on energy-efficient projects and for capital projects with the lowest initial costs for the biggest impact.

The Westin Buckhead has done several low-cost, high payback things to save energy, such as using LED lighting throughout the hotel, replacing the kitchen exhaust hoods that automatically senses smoke or steam to run efficiently, and only operating the ice machines at night. The hotel also has done larger ticket items as well, such as installing a water pressure system, a guestroom energy management system and an energy recovery unit, which can change the inside air temperatures by up to 50 degrees in the winter and 30 degrees in the summer months, Attaway said.

Mike Prevatte, owner of Wilmington Development, which has a Sleep Inn and MainStay Suites in Wilmington, NC, is a strong proponent of energy management systems. Prevatte built his properties with Lodging Technologies’ energy management system in place. The extended-stay MainStay Suites has an interface with its cooktops in guestrooms that will automatically turn it off if the guest leaves the room.

"Energy management products have a great ROI and with the use of cellular activity instead of wiring, you can save a lot on installation costs," he said

Hertzfeld, Esther, How to save on energy management, hotelmanagement.net/technology/how-to-save-on-energy-management-30384, February 24, 2015

Communities Talk Trash as They Find More Extreme Ways to Recycle

When it comes to the mellow mantra “reduce, reuse, recycle,” the laid-back West Coast is hard core. Garden-variety plastic bag and bottle bans or now-ubiquitous electronics and pharmaceuticals recycling efforts are old news. In Portland’s suburbs, a plan is brewing to craft boutique beer from purified sewage water.

In San Francisco, thirsty residents are being asked to BYOB to a growing network on "hydration stations" where they can fill water bottles. And in Seattle, garbage haulers also serve as compost cops, slapping red tags on bins containing too much compostable material—banana peels, soggy salads, coffee grounds—a scarlet letter for sustainability sinners.

Then there is perhaps the most extreme recycling notion yet: the Urban Death Project. Proposed by Katrina Spade, a Seattle designer and “climate fellow” with the non-profit Echoing Green, it would allow the deceased to go to their eternal rest as compost themselves.

Creative stabs at sustainability pop up regularly across the US, from cigarette-butt recycling bins in New Orleans to a Gilbert, AZ, company that recycles bras. Cities increasingly pick through ways to divert trash from landfills. Since January 1, new restrictions on how Seattleites must sort their trash have led to the issuing of more than 5,200 red tags, warning composting miscreants of the errors of their waste.

The tags, which read, "It's not garbage anymore," are meant to educate, not shame, the city says, and let customers know that fines—$1 for each violation—will be assessed beginning this summer.

Haulers don’t slice bags open, but if they can tell a bag contains more than 10% food waste, they’ll tag it.

In the deeply green Emerald City, "We'd had no customer complaints," says Andy Ryan, spokesman for Seattle Public Utilities, "Like Portland," he says, "we're the butt of some national jokes for our green behavior. But our citizens asked for this." He says a survey showed 74% of residents endorsed the requirement to separate food waste from garbage.

Portland, of course, is the locale for TV's "Portlandia," which spoofs the city's image of overly earnest progressiveness. The city's sustainability efforts mirror that perception.

Residents can sign up for eight-week classes to become "master recyclers" by studying thoughtful consumption, alternatives to hazardous household products, green building and more. City-sponsored fix-it fairs teach attendees to repair goods like broken appliances rather than junking them.

Jeanne and Dick Roy, co-directors of Portland's Center for Earth Leadership, have advocated for recycling and reuse efforts here since the 1980s. Mrs. Roy says they never buy anything disposable, such as paper towels, and bring their own containers when ordering takeout.

They compost and recycle so much, she says, that their only trash can—which they last emptied in March 2014—is just half full today. It holds such stuff as dental floss, incandescent light bulbs and non-recyclable plastic, such as the tear strips from frozen-juice cans.

"Reducing consumption and waste," she says, "has been the easiest lifestyle change for me to make—a lot easier than living in a smaller house or not driving." Though she notes: "I've made progress in those areas as well."

Clean Water Services, a suburban utility, recently announced a challenge to home brewers to craft ales or lagers from highly purified sewer water, creating "sewage brewage" or
"poo brew," as some termed it. The water meets federal safe drinking standards, but its use for brewing still requires state approval before the contest can proceed.

Ted Assur of Portland’s Oregon Brew Crew home-brewing club hopes to try. He says he finds the challenge "fun and cool" but would also like to make a point: "As water becomes more difficult to obtain globally," he asks, "how do we break down some of the taboos about where it comes from?"

San Francisco is the city to which many sustainability enthusiasts bow down. Among other practices, officials have banned the sale or distribution on city property of most single-serving bottled water, erecting instead "hydration stations," taps where people can fill their own containers from the city's water supply.

Its efforts at recycling and composting, along with its ban of retailers offering plastic bags, have helped San Francisco divert 80% of its trash from landfills, the city says. It aims for a 100% goal by 2020.

Seattle says it diverts about 55%, while Portland says it diverts about 70%. New York City, by contrast, diverts about 15%, a city spokeswoman says. The national average, according to the EPA, is 34%.

Todd Myers, environment director for the Washington Policy Center, a Seattle think tank, says there are better ideas than the city's new composting program. He says cities such as his would get more for their money and do better things for the environment by, for instance, investing in renewable power instead of mandating composting.

"The reason you get silly policies," he says, "is that symbolic gestures are easier than effective gestures.

Purified wastewater is already on tap in some places. Southern California’s Orange County in 2007 opened what was believed to be the world’s largest plant devoted to transforming sewage into drinking water. Each day, it produces about 100 million gallons of potable water than flows to residents' faucets, according to the county’s water district.

Art Larrange, who runs a Portland brewery, says he proposed the beer-making contest to get people thinking creatively about all sources of water. "We're just borrowing it," he says of the water supply, "kind of like our time on Earth."


A GREENER WORLD

Despite wholesale deforestation in some areas, satellite observations reveal that the total amount of vegetation worldwide has increased by about 4 billion tons of carbon since 2003. The findings were published by an international team of scientists in the journal *Nature Climate Change*. "This increase in vegetation primarily came from a lucky combination of environmental and economic factors and massive tree-planting projects in China,” said lead author Dr. Yi Liu of the University of New South Wales. "Vegetation increased on the savannas in Australia, Africa and South America as a result of increasing rainfall, while in Russia and former Soviet republics, we have seen the regrowth of forests on abandoned farmland.” Liu pointed out that China was the only country that intentionally increased its vegetation by planting trees. Despite the trend, the world's greatest loss of plant life was observed on the edges of the Amazon forests, Sumatra and in Indonesian portions of Borneo.

Earthweek, A greener world, Houston Chronicle, April 5, 2015

WATER USE CHALLENGE!

Regarding California's drought situation, we stated on Page 2 that during last summer Sacramento's residential water use averaged 146 gallons per person per day compared to 91 gallons in LA. With that in mind, it should be interesting to see how your property and/or your home water use stacks up. Pull out some recent water bills, find the volume of water used during that month, and divide it by the number of days in the month. Then, divide it by either the number of occupied rooms or the number of persons occupying your home during that month. So . . . how’d you do? High five or thumbs down? The message is, "We can all do better!"

FINAL WORDS . . .

Nature is full of genius, full of the divinity; so that not a Snowflake escapes its fashioning hand.

Henry David Thoreau