

WATER CONSERVATION MEASURES:

Privies to get more efficient; Are you sitting down? Consider this: During your life, you likely will flush a toilet 140,000 times. A new law aims to start saving water each time you do

Sacramento Bee – 12/2/07

By E.J. Schultz, staff writer

In your lifetime, you likely will flush the toilet 140,000 times, according to government estimates.

A new state law seeks to make each flush a little more efficient, saving California about 8 billion gallons of water a year.

The legislation did not get much attention when it was signed by Gov. Arnold Schwarzenegger last month, but its implications will trickle down to new home builders and buyers in the next several years.

By 2014, all toilets installed in most new buildings and homes will have to use no more than 1.28 gallons of water per flush, down from the current 1.6-gallon standard. The standard for urinals will change from 1 gallon to a half-gallon.

The regulations will phase in beginning in 2010, when half of all toilets sold in the state must be high-efficiency models.

"The last generation of toilet efficiency has produced immense savings across the state, and this is the next generation," said Assemblyman John Laird, D-Santa Cruz, who wrote the bill.

The law comes as California deals with an ongoing drought that state officials say could lead to restrictions on water deliveries to cities and farms.

Scientists predict the situation could worsen if climate change attributed to global warming reduces the mountain snowmelt that the state relies on to fill reservoirs.

The toilet savings will not be enormous; 8 billion gallons is less than one-sixth of the annual water use in Fresno alone. Laird said the bill is part of a larger conservation push that he hopes to follow up on next year with more legislation.

California's toilet standards were last updated in 1992. The 1.6-gallon limit soon became the national standard.

At first, those new toilets lacked power, prompting complaints from consumers.

Manufacturers went back to the drawing board. And now most everyone agrees that 1.6-gallon toilets – as well as the 1.28-gallon "high-efficiency toilets" – are just as good as older toilets.

The newest toilets send water to the bowl at faster speeds, allowing for a forceful flush with less water.

Wathen-Castanos, one of Fresno's largest home builders, installs high-efficiency toilets in all its new homes. Consumers have never complained and none has asked for a new toilet, said Laura Mather, the home builder's director of sales and marketing.

"There's just more education going on about green building and energy efficiency," she said.

Consumers aren't likely to pay more for a high-efficiency toilet, because prices are based on style rather than flushing action, according to toilet maker American Standard.

The company's "FloWise" high-efficiency toilet lists for \$359. As proof of the toilet's power, American Standard features a video on its Web site of the toilet easily flushing down golf balls, wads of paper towels and other items.

Laird's legislation faced minimal industry opposition.

The state plumbers association – which fought previous attempts to tighten toilet standards – supports the new flush limit and plans to spread the word about high-efficiency models.

"We've just done a complete 180 in where we were a year and a half ago," said Stephen Lehtonen, executive vice president of the Plumbing-Heating-Cooling Contractors of California.

Lehtonen credits his conversion to a recent trip to rain-starved Australia. The country's plumbers association runs a "GreenPlumbers" training program aimed at promoting environmentally friendly plumbing.

Upon his return, Lehtonen helped launch a similar program in California, which aims to train some 15,000 plumbers in the next four years, he said.

"It's time that plumbers got involved in being conscious of the environment," he said.

Homeowners who install high-efficiency toilets are not likely to see a significant drop in their water bills. But if enough residents install them, it could free capacity at municipal wastewater treatment plants. That could stave off costly expansions that eventually would lead to rate increases, said Lon Martin, who oversees the city of Fresno's water system.

Many homes still are using 3- and 5-gallon toilets, Martin said. #
<http://www.sacbee.com/111/story/535991.html>

RATE INCREASE:

Cal Am seeks big water rate increase; Bills could more than double if request approved

Monterey Herald – 12/1/07

By Jim Johnson, staff writer

California American Water customers' bills would more than double by 2011 if the company's general rate increase is approved by the state Public Utilities Commission.

Friday, Cal Am submitted a request to the PUC to raise water rates from the \$41.12 per month the average customer pays now to about \$90.14 per month by 2011. Under Cal Am's proposal, the average customer's monthly bill would rise from \$41.12 to \$70.79 in the first year, followed by an increase to \$79.71 during the second year, and would peak at \$90.14 in the final year.

If approved, the rate increase would take effect in June 2009 at the earliest and would cover the three-year period from 2009-11.

The proposed rate increase follows several approved rate hikes and surcharges during the past 12 months, and additional increases are expected.

Cal Am's proposal triggers a 20-month review process by the PUC, which will conduct an analysis of the company's request and accept public input. The Department of Ratepayer Advocates will participate in the review.

Aging system

Cal Am spokeswoman Catherine Bowie said the rate increase is necessary to help pay for water system improvement projects, including pipe replacement and well production upgrades. The rate increase would raise nearly \$37 million of the \$84 million Cal Am plans to spend on infrastructure upgrades, Bowie said.

"There really is a significant need for investment in our water system," Bowie said, noting that parts of the system date to the early 20th century. "There are many parts of the system that have to be improved."

Projects covered by the proposed rate increase include replacement of pipes to reduce leakage; rehabilitation of wells in Carmel Valley and Seaside that are declining in production; investment in the joint aquifer storage and recovery project being undertaken in conjunction with the Monterey Peninsula Water Management District; and improvements to tanks, meters and pumping stations.

The increase is intended to pay for the addition of 17 employees, as well as rising operational, labor and maintenance costs.

Increase upon increase

Alvin Edwards, vice-chairman of the MPWMD board of directors, said Cal Am's proposed increase seems especially high given other recent rate jumps on its customers' water bills.

"I'm not speaking for the (water) board but as a director, we really need to look at this," Edwards said. "That's a lot of increase on top of the increases that have already been approved. I hope the board looks at this and the Ratepayer Advocates look at this and the ratepayers get a fair deal."

Supervisor Dave Potter, an MPWMD director, said he hadn't seen the justification for the proposed rate increase, but said he suspected it reflected "a lot of deferred maintenance" needs. Potter said it is proof that putting off maintenance inevitably costs more in the long run.

Last month, the PUC approved a surcharge on Cal Am water bills to pay for \$9.3 million in preconstruction costs for the \$200 million Coastal Water Project. The project consists of a desalination plant at Moss Landing with water pipelines and pumps, and aquifer storage and recovery facilities in Seaside. Expected to produce 11,730 acre-feet of fresh water per year, the project was proposed as an alternative to the previously proposed Carmel River dam and reservoir, which was rejected by voters.

The PUC allowed Cal Am to recover its costs for the now-defunct dam project.

Previous hike

In November 2006, the PUC approved a 20 percent general rate increase for 2006-08, about half of what the company asked for. The increase was designed to help pay for water system improvements, including the Carmel Valley water main replacement project, as well as company employee pension and benefit upgrades.

Cal Am proposed a rate increase to cover the costs of removing San Clemente Dam in Carmel Valley, but the PUC authorized the company to keep track of its costs and apply for recovery in the future.

Cal Am expects to ask for permission to pass along to customers the costs of a water conservation program, including public outreach, rebate programs, water audits and water waste enforcement.

Cal Am serves the Peninsula communities of Monterey, Pacific Grove, Seaside, Carmel, Carmel Valley, Carmel Highlands, Del Rey Oaks and Sand City, as well as parts of the Monterey-Salinas Highway corridor and Chualar in the Salinas Valley. #

http://www.montereyherald.com/local/ci_7609074?nclick_check=1

CLIMATE ISSUES:

How does climate change affect valley?

Modesto Bee – 12/3/07

By Martha Conklin and Lara Kueppers, staff writer

In the face of global climate change, one important role for science is to investigate the areas in which society is vulnerable to climate warming and to help guide efforts to adapt to changes.

What resources might be threatened and how? At the University of California at Merced, we are addressing this question for several important regional resources.

A significant fraction of California's water supply comes from the Sierra Nevada snowpack. With our mild winters, temperature increases of only a few degrees will be enough to turn what are now mountain snowstorms into rainstorms. The implications for earlier runoff, more severe spring floods and drier summer soils in mountain forests are motivating a broad-based research effort to understand the mountain water cycle.

The foundation for this research is a new generation of measurements to get a quantitative understanding of snow distribution, snowmelt, soil moisture, water use by plants and processes that determine the timing and magnitude of streamflow. Strong academic- applications partnerships, some of which are in place and others still developing, are the key to making this research possible and assuring that results are useful to decision-makers in the state.

In addition to the global effects of our carbon emissions, human activities affect the climate on a regional scale. For instance, we have found that in the Central Valley, agricultural irrigation can mask the effects of climate warming.

When watered, farmland acts like a giant swamp cooler. Future land-use changes that replace fields with housing and businesses could turn down the air conditioner and make us more vulnerable to the warming climate.

Species and ecosystems in the high mountains are especially vulnerable to climate change, driven by the effects of higher temperatures on the water cycle and plant growth. How mountain plant species, such as alpine wildflowers and pine trees, respond to higher temperatures and drier summers is not well-known. It all depends on how climate warming will affect ecosystem interactions, not just plant species in isolation.

Already, animals that make their homes on mountaintops, such as the rabbitlike pika, are in danger of extinction. These habitats and species bring millions of tourists to the Sierra each year. We are striving to learn more about these sensitive ecosystems to improve their chances of weathering the changes ahead.

Research has shown that increased risk of wildfire in mountain forests is linked to climate warming. Earlier and warmer springs lead to a longer fire season and more dry vegetation that is vulnerable to frequent, large wildfires. Recent surges in wildfires can be explained

in part by fire suppression and land-use changes, but climate warming has driven much of the increase.

Forests in California's Sierra Nevada are especially vulnerable because they are affected by warming and fire suppression.

Mountain wildfire threatens tourism, timber and public disaster response resources. It is an area where we must adapt our systems to the reality of climate change. Research that integrates across forest health, wildlife, water and human concerns is helping to provide the knowledge base for adaptation.

Individual, day-to-day changes to reduce emissions and slow climate warming are vital. But climate warming is already under way, thanks to past choices. Research efforts such as these can help draw attention to areas where we must proactively adapt lifestyles, economies and resource management to be better stewards of our resources today and into a warmer future. #

<http://www.modbee.com/opinion/community/story/140594.html>

WINTER WEATHER CONDITIONS:

What will La Niña bring? Flip a coin; Weather system's effects on winter Valley rainfall have been varied, unpredictable

Fresno Bee – 12/2/07

By Mark Grossi, staff writer

A cool-water phenomenon in the Pacific Ocean may help turn a dry autumn into a drought winter in the San Joaquin Valley, climate scientists say.

Fewer storms may come to Central and Southern California this winter because of a weather-altering La Niña in the ocean near South America.

With reservoirs already dipping after last winter's meager wet season, drought concerns are rippling through the Valley, the state's premier farming region.

But meteorologists say it might be too early to worry, adding that La Niña does not necessarily mean a dramatically dry season for the Valley.

The global weather force is fickle and hard to predict in this area.

"More than half of the La Niña years are near normal for precipitation here," said meteorologist Chris Stachelski of the National Weather Service's office in Hanford.

Indeed, some of the 19 La Niña years since 1950 have brought rainfall well above normal.

In 1955, for instance, Fresno received its biggest December rainfall ever -- 6.73 inches. Seven years ago, Fresno rainfall set another monthly record -- 6.12 inches for February.

But the dry seasons were memorable, too. In the mid-1970s, La Niña had a hand in an intense drought when Fresno had three consecutive dry years.

The Weather Service's immediate forecast doesn't offer much comfort: there is a slight chance of rain late this week.

Only 0.09 of an inch fell in Fresno in November. Average for November is about 1.10.

The city has recorded 0.39 of an inch since July 1, the start of the precipitation year. That is 24% of average for this time of year.

But it's not nervous time yet, said meteorologist Jan Null, who runs a private consulting firm called Golden Gate Weather Services in the Bay Area.

"The wet season really doesn't get rolling until mid-December," he said.

Still, he and other meteorologists are not going too far out on a limb to forecast the Valley's winter. This region is a bit of a void for La Niña-related predictions.

It's a lot easier to predict that storms will head toward Northern California and the Pacific Northwest while the moisture will mostly miss Southern California, southern Nevada and Arizona.

Sometimes, the Valley gets a piece of the northern storms; sometimes, it gets the dry weather of Southern California. If you were wagering on a dry or wet winter in the Valley, it would be a coin flip.

"The deck is stacked for a dry winter in L.A., San Diego and Arizona," said research meteorologist Nicholas Bond of the Pacific Marine Environmental Laboratory in Seattle. "But I wouldn't say the deck is stacked for dry weather in the San Joaquin Valley."

This discussion takes place every two to five years. That's about how often La Niña, Spanish for "the girl," appears in the Pacific. It is a blob of cool water spreading thousands of miles from the coast of Peru.

It is the flip side of warm-water El Niño, which means "the boy" or "the Christ Child," often appearing around Christmas. El Niño's ocean warming is linked with a higher chance for a wet winter in California and the Valley.

La Niña and El Niño are considered weather titans. They alter storm incubation in the Pacific as well as influence flooding and droughts all over the planet. Scientists have studied them for years, and still there is much to learn.

La Niña results when winds increase across the equator and blow surface ocean water away from South America, allowing deeper, cooler water to rise. As the surface water cools, so does the air.

The cooler air and water hamper formation of rain-producing clouds, affect the high-altitude jet stream and allow high-pressure ridges to bounce storms away from Central and Southern California.

The cooler the water gets, the more intense the phenomenon's effects. This year, La Niña's ocean temperatures are moderate.

There have been five moderate La Niñas since 1950, and two contributed to significantly dry seasons in Fresno, according to Golden Gate Weather Services.

Both of the dry years -- 1967-68 and 1984-85 -- were less than 75% of average for Fresno. But the three other moderate La Niña years had near normal rainfall.

Said Stachelski of the Weather Service: "We're just on the fringe of the drier-than-normal predictions. That makes longer-term forecasting very difficult." #

<http://www.fresnobee.com/263/story/239094.html>

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Felton group vows to fight proposed Cal Am hike amid fight to take over water system

J.M. BROWN

SENTINEL STAFF WRITER

FELTON -- California American Water is seeking permission from the state to hike rates 78 percent over three years for its 1,300 Felton customers, a company official confirmed Friday.

Cal Am filed a preliminary request with the California Public Utilities Commission to increase rates about 72 percent in 2009 another nearly 4 percent in 2010 and 2011, spokesman Evan Jacobs said. He said the company needs the additional revenue to hire another employee for its five-member team in Felton and to backfill losses caused by conservation efforts.

Jacobs said the hike would be closer to 65 percent for residential customers because usage amounts are not equal across its customer base. If the Public Utilities Commission approves the increase, Jacobs said the average residential customer's bi-monthly bill would jump to \$210 from \$127. He said the company would maintain its reduced rate program for low-income residents.

Felton Friends of Locally Owned Water, or FLOW, a grass-roots group of residents that has sued to wrest control of the water system from Cal Am, plans to oppose the increase, according to its legal chair, Jim Mosher.

"It's a surprise and an outrage," Mosher said. "It's further evidence that this company cannot run our system effectively and provides more ammunition and evidence about why we need a public takeover."

A PUC spokeswoman declined to comment on the rate hike increase, saying she had not seen Cal Am's preliminary request.

After FLOW intervened to lower the amount of a Cal Am rate increase several years ago, the PUC ordered Cal Am to pay FLOW's legal fees of nearly \$68,000. The arrangement allowed for Cal Am to recover the fee through surcharges passed along to its Felton customers, which FLOW is fighting because it believes the charge should be spread among Cal Am's customers statewide.

FLOW and Cal Am are scheduled to appear in Santa Cruz County Superior Court in February for a trial that will determine if there is public interest in Felton residents owning their own water supply. If FLOW wins the case, there will be a jury trial to determine the purchase price for the water -- a transaction for which voters approved a 30-year, \$11 million bond in 2005.

If FLOW is victorious, Felton residents would become customers of the San Lorenzo Valley Water District, which Mosher said can provide service at costs up to 80 percent less than Cal Am. Jacobs said Felton residents would not save as much as FLOW claims because the San Lorenzo Valley Water District likely will raise rates and taxpayers would have to repay the purchase bond at an estimated \$600 per year.

Jacobs said Cal Am needs to hike rates because the company's overhead does not decrease just because conservation and other efforts cause water usage to go down.

"We spend the same amount whether we sell the same amount of water," he said.

Although Jacobs said he did not know exactly why the company was pursuing such a significant hike the first year, he said hiring a new water systems operator with the income afforded by a rate increase would benefit customers by improving maintenance and customer service. With only five workers at the Felton Cal Am office, he said sickness or vacation among employees can cause a work slowdown.

But Mosher said such a sharp increase attacks the quality of life for Felton residents.

"The last rate hike put people on the edge of having gardens or not," he said, because residents could not afford to water plants.

Jacobs said Cal Am expects the PUC to take most of 2008 to determine whether the rate increase is acceptable. Last month, Cal Am filed a similar request to more than double rates in Monterey County.

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