



**FREEHAND**  
1.75G HERBICIDE

You have enough things to worry about. But with **FreeHand™ 1.75G herbicide**, hand-weeding isn't one of them. **FreeHand 1.75G** gives you up to 8 weeks of broad-spectrum preemergent weed control. And since **FreeHand 1.75G** utilizes two highly effective active ingredients and two unique modes of action, it's a great resistance management tool, too. Free your crew up to do other things, with **FreeHand 1.75G**.

[betterturf.basf.us](http://betterturf.basf.us) | 800-545-9525

 **BASF**

The Chemical Company

Always read and follow label directions.

FreeHand 1.75G is a trademark of BASF. © 2009 BASF Corporation. All rights reserved.

# Sustainability for a Greener Tomorrow...

Cultivate your  
sustainable  
future at Mid-Am.



- ❖ Hundreds of exhibits
- ❖ Educational seminars
- ❖ Mid-Am Mixer & Reception **FREE**
- ❖ Relax & Learn Pavilion **FREE**
- ❖ Understanding Sustainability Zone **FREE**
- ❖ and more!

## Mid-America Horticultural Trade Show

January 20-22, 2010  
McCormick Place West  
Chicago, Illinois



[www.midam.org](http://www.midam.org)  
800-223-8761

See how Mid-Am can put your business on the  
sustainability path at [www.seemidam.org](http://www.seemidam.org)!

# Today's **CHOICES,** tomorrow's **REALITY**

California has two options to secure its water future — use its present water more wisely or find expensive new sources. The Green Industry can (and should) help make the first option tomorrow's reality.

PART

2



## 35 California's ticking water clock

Why some smart people say our nation's most populous state still has time to save its water future.

## 41 Speaking with a single voice

When related segments of the Green Industry cooperate to influence policy good things happen.

## WORD FROM OUR PARTNER

# Rain Bird: Partnering for a Better Environment

**IT'S BEEN SAID THAT** teamwork divides the task while multiplying its success. When faced with a somewhat daunting task, sharing our visions and aspirations with others can often help us achieve much more than if we try to go it alone.

Collaborating, communicating and building relationships with other likeminded individuals and organizations are key elements of Rain Bird's guiding philosophy, The Intelligent Use of Water. When it comes to safeguarding earth's most precious resource, we are all stakeholders. And as stakeholders, we must communicate with one another—public sector and private sector, individuals and industry, nationally and internationally. That's why Rain Bird continues to partner with irrigation professionals, thought leaders, government and non-government organizations and water agencies to raise global consciousness of the need to use water wisely.

Within the irrigation industry, we've developed training programs that give us the opportunity to collaborate with professional contractors and inform them of the latest water-efficient irrigation products, installation methods and maintenance procedures. These contractors are then able to pass on this information to their customers, furthering awareness of the need for and best practices of outdoor water conservation.

Outside the irrigation industry, Rain Bird has partnered with a variety of public and private entities. This year we have expanded our Intelligent Use of Water Award to recognize both local and statewide governments' outdoor



water conservation programs, offering these agencies a platform to share their successes at The Intelligent Use of Water State of the Union Summit in Washington, DC. Rain Bird has also been involved with the Alliance for Water Efficiency and the EPA's WaterSense program, sharing best practices in water efficiency while developing new ones. Meanwhile, our partnership with the American Public Gardens Association and its 500 member gardens is designed to promote awareness of the link between water and plant conservation through National Public Gardens Day.

Rain Bird will remain committed to bringing to market the most water-efficient products and services. Just as importantly, though, we will continue to seek out opportunities to collaborate both within the irrigation industry and beyond it to ensure that the conversations on conservation continue. The task we all face is a significant one, but we're confident that teamwork is the best recipe for success.



With 15 million new residents expected by 2030 and a water crisis looming, the landscape industry is, caught in the middle. But some smart folks claim our nation's bellwether state can still meet its future water needs, maintain a vibrant economy and preserve its environment . . . and they're serious!

BY **RON HALL** EDITOR AT LARGE

# California's ticking water clock

**T**HE BIGGEST and least expensive new source of water for California won't come from building new dams and reservoirs.

Forget the Colorado River. In fact, California can expect less water from the river as the six other states in the Southwest that rely on it finally begin taking more of their allocated share. The Sacramento-San Joaquin Estuary is out of the question, too, because

of serious environmental concerns. Desalination? Yes, that's a possibility, but an incredibly expensive one, especially in terms of energy use.

The best and cheapest new source of water for California will come from wisely using the water California has already.

That's what Dr. Peter H. Gleick, co-founder and president of the Pacific Institute in Oakland, CA, Heather Cooley and David Groves

said in *California Water 2030: An Efficient Future*, a publication they co-authored. The clock is ticking to make that happen though. The longer California takes to implement intelligent water policies — conservation pricing, user incentives, workable model landscape codes, etc. — the less likely the transition to a sustainable water future.

Will Johnson, owner of Seco Landscaping, San Diego, doesn't





LANDSCAPE IRRIGATION ACCOUNTS FOR FROM 30% OF URBAN WATER USE IN COASTAL CALIFORNIA TO MORE THAN 60% INLAND. MUCH OF IT IS WASTED.

think the public is willing to see the state's water crisis for what it is. Not yet anyway.

"The direction we're going in terms of water use is unsustainable," says Johnson. "We're literally the car speeding toward the edge of the cliff. Fortunately, there are some people in this business (landscaping) taking the water issue seriously and getting ahead of it before it comes down on us in a very unpleasant way."

Johnson named his company Seco because it means "dry" in Spanish. He specializes in designing and installing drought-tolerant landscapes, which he says fit San Diego's Mediterranean climate. Nevertheless, customers still ask him for tropical landscapes and large areas of turfgrass. Both require regular irrigation and costly weekly or monthly maintenance, he says.

Gleick and the non-profit Pacific Institute he co-founded in 1987 is recognized internationally as an authority on water and related environmental issues.

But is he and his colleagues merely dreaming that policy makers and the state's 37 million people are willing to make wise choices now to ensure California's water future?

No, they're not dreaming. Their 44-page report outlines a high efficiency scenario in which by 2030 water use could be cut 20% (and outdoor water use by 32%) below 2000 levels, and California could still maintain its vibrant economy while protecting its environment.

The biggest savings, the report said, is expected to come from urban rather than agricultural water use, where conservation is well underway.

"Delaying action on water conservation and efficiency increases the pressure to find, build or buy new, expensive and environmentally damaging sources of water supply," Gleick said in the report. "While we don't believe a highly efficient future is necessarily easy to achieve, it'll be easier, faster and cheaper than any other option facing us."

Even though a plan prepared by the California Department of Water Resources in 2005 predicted demand for urban water will increase 3 million acre feet (MAF) by 2030, Gleick thinks it can actually be reduced 0.5 MAF from current levels if action is taken now to change how Californians view and use water. (An acre-foot of water is the amount of water needed to cover an acre of surface to a depth of one foot, about 326,000 gallons.)

### Green Industry's challenge

Reducing urban water use has profound implications for California's vibrant landscape industry, of course. The effects of the state's water scarcity and the policies implemented by state and regional authorities are already being felt by landscapers.

For example, The California Department of Water Resources developed a Model Landscape Ordinance that encourages, among other things, the use of water-efficient plants and irrigation through the development of a water budget for each landscaped site. Several local and regional authorities have adopted similar measures, beating the state-mandated Jan. 1, 2010, deadline when all towns must adopt an ordinance.

The aim of the model ordinance is to move the industry and consumers to reduce outdoor water use and embrace what are being described as California-friendly landscapes.

### CLCA is on board

The California Landscape Contractors Association (CLCA) has made water issues one of its top priorities, and has instituted aggressive programs to educate and drive efficient irrigation practices among its members. For example, its Water Manager Certification Program is becoming increasingly popular among members.

Meanwhile the CLCA approves of many, but not all, of the conservation initiatives being promoted by state and regional policy makers, such as conservation rate structures or tiered rates for water users. (The more you use, the more you pay.)

Curiously, in spite of being in the grips of a severe 3-year drought and being under a water emergency declared by Governor Arnold Schwarzenegger this past February, many residents in the Central Valley, including the City of Fresno, don't have meters to measure their water use.

This will change, but surprisingly slowly. All homes must have water meters by 2025, according to a recent state law.

Meanwhile, CLCA opposes efforts by water authorities to limit the number of days property owners may irrigate their properties, which it says actually encourages water waste.

## LANDSCAPERS CAN SAVE CLIENTS \$\$

**T**he price of treated water is escalating throughout the United States, often at a double-digit rate. Nowhere is this truer than California.

According to a report issued by the NUS Consulting group in Sept. 2008, the average price of water in the United States increased by 7.3% the preceding year in 2007. It based the figure on a survey of 51 water systems located throughout the country. From 2003 until July 2008, the price of water had risen almost 30% nationwide. More than two-thirds of the surveyed cities had increased their water charges, according to NUS. In some parts of California, that trend is expected to continue, perhaps dramatically.

But, higher water prices, as much as we dislike them, give knowledgeable landscape and irrigation professional another opportunity to provide a resource-conserving service to property owners. Saving water also will save them money. After all, it's estimated landscape irrigation accounts for 20% to 60% of residential water use, depending on regional and climatic differences throughout the country. In California, especially hotter, drier inland areas, the higher percentage is more likely.

### Here's what's going on with the price of water in California and elsewhere.

- ▶ This past July, council members in Livingston, CA, split 3-2, but a 40% water-rate hike passed nonetheless.
- ▶ Starting Sept. 1, residents in Garden Grove, CA, began paying 19.7% more for water with more rate increases on the way.
- ▶ Residents of San Diego have absorbed six price jumps since 2007. As 2009 draws to a close, city council members are seeking an additional 7% increase
- ▶ Also in San Diego County, the Otay Water District approved an increase of almost 20% and the Helix Water District 21% more for the water it provides customers.

### If you think Californians are the only ones taking a hit at their water meters, think again.

- ▶ New York City Water Board raised water rates 14.5% in 2008, and tacked on another 12% increase, which went into effect this past July 1.
- ▶ To cover a \$5-million budget shortfall Biloxi, MS, is instituting a 20% flat rate increase.
- ▶ Santa Fe, NM, jumped its water rates 8.2% this past March.
- ▶ Residents in Waterloo, IA, learned in August they're facing 9% water-price increase, the first of several consecutive years of rate jumps.
- ▶ The 9% water-rate increase that went into effect for customers in the Raleigh, NC, water system this past summer will be followed by a 6% hike in December.

While most consumers want to do the right thing when it comes to the environment and conserving water, they're more likely to do it when they can see the results in their pocketbooks.

By renovating outdated irrigation systems or installing properly designed systems with smart controllers, rotating nozzles and other water-saving features, landscape pros can save their customers cash, especially if they can match water savings with water agency rebates. — RH



### Landscapes need water

George Ash, Jr. of Casa Verde Landscape has seen incredible growth and development in the communities around Alta Loma, where his company is based. Alta Loma is one of dozens of communities located in the Inland Empire, a huge chunk of Southern California located about 35 miles inland of the Pacific Coast and east of Los Angeles.

Growth in the Inland Empire (the largest city is Riverside) kept his company busy designing and installing beautiful landscapes for its first 15 years, and his employees didn't have to travel far to do it. But the local economy headed south in late 2007 ago and construction slowed dramatically. Casa Verde still gets its share of those jobs, but Ash has shifted much of its focus to commercial maintenance. His company strongly promotes using alternative water sources for landscape irrigation.

"People here want their grass green and their trees healthy," Ash

says. "And, everything has to be irrigated if you want anything green. You have to bring in water."

The Inland Empire and other non-coastal regions of the state are expected to grow fastest during the next 25 years. In fact, their populations are expected to double. This poses a huge conundrum for water planners. Historically, these regions, some of which extend into desert areas, feature large tracts of single-family homes compared to the multifamily developments more common on the coast. Also, these houses are being built on larger lots, reflecting cheaper land prices in the state's interior. Because the climates of these inland counties are hotter and drier than coastal counties, landscape water needs there are significantly greater than elsewhere in the state.

### An incredible system

Most of the water for San Diego, indeed all of Southern California must come from elsewhere because little

surface water is found in the region naturally.

To provide adequate water for agriculture and cities, federal, state and regional authorities have built the largest water storage, transport and flood management system in the United States.

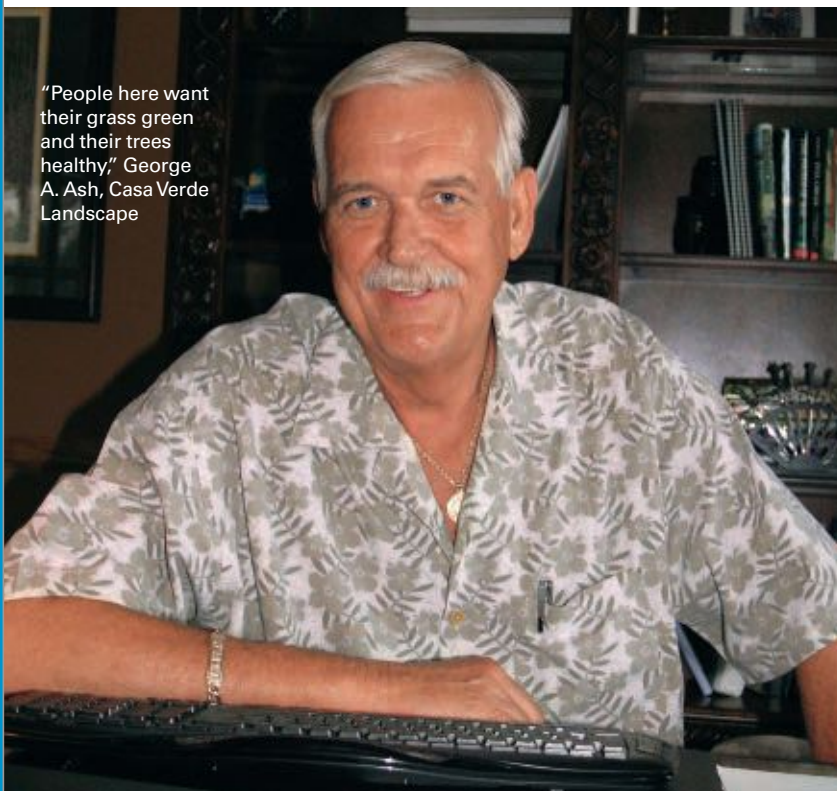
A marvel of engineering with more than 1,000 federal, state and local reservoirs and conveyances, the system is characterized by three massive water projects that, using enormous amounts of energy, move water over mountains and through valleys to farmers and cities. This is necessary because 75% of the state's water is north of the Sacramento River, but 80% of demand is in the lower two thirds of California. The three largest projects are:

1. The **Central Valley Project (CVP)**, built in the 1930s, runs 450 miles through the vast valley that begins with Lake Shasta in the north and ends at Bakersfield in the south. It collects and conveys water from the Sacramento, San Joaquin and several smaller rivers. It delivers water to parts of the San Francisco Bay area and in the Central Valley.

2. The **State Water Project (SWP)**, built from 1961 to 1973, delivers water in the Bay Area, Central Valley and Southern California. It's the nation's largest state-built water and power development and conveyance system. It takes water from areas in Northern California, where water is plentiful, and delivers it to 23 million residents in areas of need in the Bay Area, Central Valley and Southern California.

3. The **Colorado River Aqueduct (CRA)** diverts a share of the water from the Colorado to serve Los Angeles and other communities in Southern California.

Despite the millions of dollars the state and regional water authorities spend on education and outreach, far too many property owners remain



"People here want their grass green and their trees healthy," George A. Ash, Casa Verde Landscape



unaware of efficient irrigation, Ash says. He believes that will only change when water rates increase, in some cases dramatically.

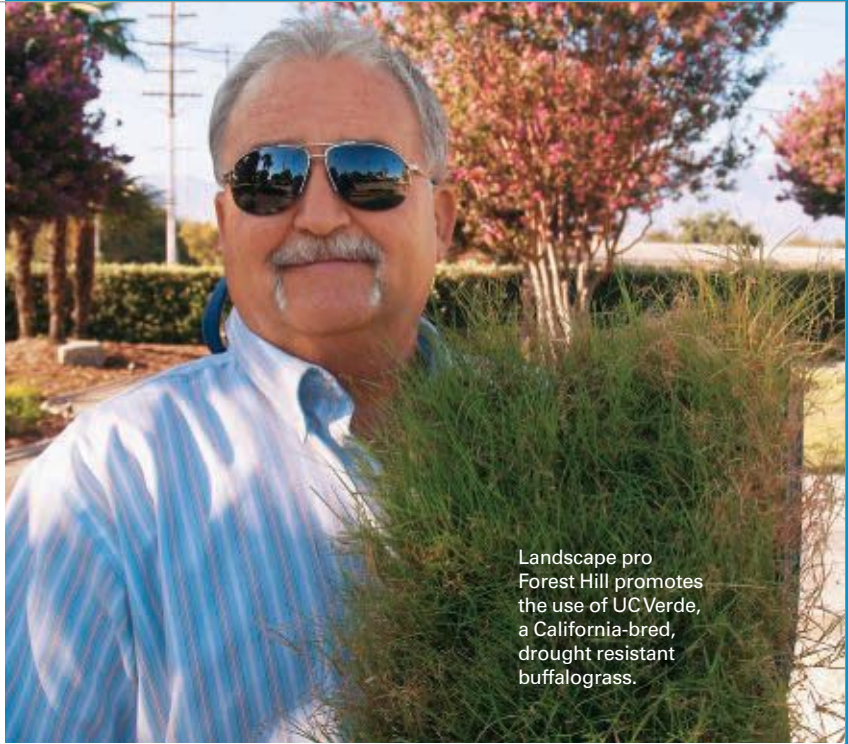
In terms of the services Casa Verde offers, some customers will agree to substantial improvements to their landscapes and their irrigation systems if they can see a return on their investments in 36 months or less, he says.

“This is sometimes possible, especially if the upgrades can be coupled with water agency rebates,” says Ash.

### Land of rebates

Southern California is ground zero for water agency rebates, the carrot used by water agencies to entice urban water users to conserve treated water. Consumers are offered cash to help pay for the cost of installing agency-approved products or performing specific services to conserve water. Many of the rebates are directed at landscape water use, which is estimated to comprise anywhere from 30% of urban water use in milder, cooler coastal California to 60% or more in drier, hotter inland California.

Water agencies often use “the stick” to drive water conservation, too. The stick used to force conservation in landscapes is typically irrigation restrictions and watering bans. Often, a water agency will use irrigation restrictions and rebates and combine those with an aggressive education campaign to reduce water usage. In other words, many communities and



Landscape pro Forest Hill promotes the use of UC Verde, a California-bred, drought resistant buffalograss.

agencies in California use all three methods — rebates, restrictions and education — to drive conservation.

Here’s a list of the landscape-related rebates offered by the Metropolitan Water District of Southern California and the family of Southern California Water Agencies. These are representative of rebates offered by agencies elsewhere:

- › \$80 per weather-based smart controller for less than one acre of landscape and \$25 per smart controller and central computer irrigation controller systems for more than one acre of landscape;
- › \$4 per nozzle for agency-approved

- pop-up, rotating sprinklers;
- › \$13 per set for high efficiency nozzles for large rotary sprinklers;
- › 30 cents per sq. ft. for replacing turfgrass with synthetic turf; and
- › \$1 per sq. ft. of removed turfgrass.

Other cities and water agencies throughout the Southwest, from Colorado Springs, CO, to Chandler, AZ, also offer rebates. Each has a different emphasis from installing rain sensors, rainwater harvesting systems, drip systems or converting areas of turfgrass, including streetscapes, to promoting xeriscaping. The Web sites of each agency outlines conditions for earning the rebates.

### California water at a glance

- › **Groundwater** provides 40% of the state’s water supply. In dry years, that percentage can increase as high as 60%.
- › Most of the **rain** and **snowfall** in the state occurs between October and April, while water demand is highest during the hot and dry summer months.

- › In an average year, about **200 million acre-feet (MAF) of water** falls in the form of rain or snow in California. About 82 MAF of usable surface water is captured, of which 48% goes to environmental uses, 41% is used by agriculture and 9% is used by cities and industry.
- › Agriculture uses 80% of the state’s **developed water supply**; urban use comprises the remaining 20%.

- › Agriculture provides **1.1 million jobs** and generates more than \$30 billion dollars in sales annually.
- › Two-thirds of **urban water use** is residential; the remainder goes to commercial, industrial and institutional customers.
- › **Outdoor water use** accounts for 20% in milder coastal California to 70% in drier, hotter inland regions.

## DELTA SMELT, NO SMALL FRY

The delta smelt is an unremarkable, slender-bodied fish that typically grows to about three inches in length. Its importance in California's water picture dwarfs even a blue whale.

Found only in the Sacramento-San Joaquin Estuary, the area where the Sacramento and San Joaquin Rivers flow into the San Francisco Bay, the collapsed population of the smelt, which has been identified by environmental experts as an indicator species, prompted U.S. District Court Judge Oliver Wanger on Oct. 31, 2007 to order a significant reduction of the amount of water taken from the Bay-Delta estuary. The ruling applies to the time of the year when smelt are spawning and when juveniles are present.

The judge found that when too much water is taken from California's largest estuary, it causes reverse flows that kill the smelt, provide conditions favorable to invasive species and damage vital wildlife habitat.

Much of this estuary water, moved by massive pumps, is sent to the Bay Area, California's agricultural Central Valley and dry Southern California. It ultimately provides water for about 25 million residents.

Judge Wanger's ruling resulted in an approximate 25% reduction of water exports from the estuary. In December 2008, the U.S. Fish and Wildlife Service laid out rules for protecting the tiny fish, essentially putting an end to several years of legal battles focusing on the smelt. — RH



The delta smelt became the poster child of the estuary's water woes.

### Ahead of the curve?

Forest Hill is not a newcomer to the landscape and irrigation scene. He's been in the business more than 30 years. In addition to his Landscape Design Inc., which he runs with his wife, Kimberly, and daughter, Kelly, Hill started a new venture, SWAN. The name is an acronym for "Smart Water Application Now." This division of his landscape operation, focuses on the water side of the landscape business.

"SWAN's philosophy is simple — water conservation and great design go hand in hand," Hills says.

SWAN, which Hill runs out of his family's home when he's not directing Landscape Design Inc., offers services to improve irrigation efficiency and California-friendly landscapes in the hot, dry climate of Ontario, CA, in

southern California. Services include:

- ▶ the conversion of time clocks into weather-based smart controllers;
- ▶ integrating drip irrigation into conventional sprinkler systems;
- ▶ replacing cool-season turfgrasses with drought-tolerant grasses; and
- ▶ monitoring irrigation use to identify and correct water waste continuously.

Most of the communities Hill serves haven't been hit with significant irrigation restrictions nor have water rates escalated enough to change property owners' watering habits, he says. "They're not feeling the pinch yet," he explains.

With SWAN, he's betting they will.

To that end, Hill's Ontario, CA, headquarters is a showcase of water-efficient landscaping. He took out four feet of tall fescue in the front yard of his property for a garden path, and

replaced the remaining lawn with UC Verde, a variety of buffalograss developed at the University of California Davis. The buffalograss requires 75% less water than tall fescue to remain green and doesn't need to be mowed nearly as often, Hill says. The attractive ornamental plants that give the property's landscape color and structure are drought tolerant varieties, as well.

"So far, I've been spending Tuesdays and Thursdays marketing SWAN," Hill says. "Eventually, I want to do this full time and take it a step or two above the fray."

Hill is just one of thousands of landscape and lawn service stakeholders that are such a vital part of the California's water picture (and economy) and will remain so in the future. Working through organizations such as the CLCA, the Irrigation Association and the Professional Landcare Network, many of them are rapidly adapting to the realities of the state's water supply issues.

### It can be done

Landscape professionals can look for inspiration to other industries that have made marked strides in becoming more water efficient. For example, the state's agricultural water use has decreased since 1980 even as crop yields have significantly increased.

Is it unreasonable to expect California's progressive landscape industry, including to help educate the public to preserve the state's water resources, its biggest challenge?

"Experience has shown that efforts to improve water-use efficiency are consistently successful and cost effective," says Gleick of the Pacific Institute.

"If we put as much time, money and effort into improving water efficiency as has gone into traditional water supply development, a high efficiency future could be readily achieved." LM