

Briefs



NOBLE FORMS TURF CONSULTANT FIRM

WILLOUGHBY, Ohio — Neil Noble, former director of turfgrass for Dye Designs Inc., has formed Environmental Turfgrass Systems Inc.

The firm will export American turfgrass and agronomic expertise to new golf developments in the Pacific Rim.

Noble recently opened an office in Honolulu, Hawaii. He had been consulting agronomist for Dye Designs for five years throughout the Pacific countries, and lived in Japan for three years.

Consulting services will be available to golf course architects working in the region.

Noble created and developed the agronomic consulting department at Dye Designs, coordinating marketing for these services in Asia through brochures, participation in domestic and international conferences and oral presentations to golf course developers in Tokyo, Osaka and Singapore.

He also hired and trained course superintendents for work on international projects.

Noble's office addresses are: 1040 Tioga Trail, Willoughby, Ohio 44094, tel. 216-951-6642, and 7 Waterfront Plaza, Suite 400, 500 Ala Moana Blvd, Honolulu, Hawaii, 808-543-2035.

ST. ANDREWS SEEKS SUPER

"The Birthplace of Golf" is seeking candidates for the new position of golf manager.

St. Andrews in Scotland has been the site of 24 British Open championships. Two of three other courses are considered of championship standard. Another two courses are being built.

According to the position announcement: "Candidates should be technically qualified, ideally in agronomy or estate management, and have a first-class track record in managing a significant golfing venue. Involvement at the highest championship level would be especially valuable."

Inquiries should be directed to Ronnie Cleland, Selection Thomson Ltd., 14 Sandyford Place, Glasgow, Scotland G3 7NB, 041/248-3666, FAX 041/248-3404.

MCGUIRE JOINS BAYOU CLUB

LARGO, Fla. — Randall E. Gentry has appointed Joseph J. McGuire as golf course superintendent for The Bayou Club.

McGuire comes to The Bayou Club after a year and a half as assistant superintendent at the Arnold Palmer course at Saddlebrook Resort. He is a graduate of the School of Golf Course Operations in Lake City, Fla. He received additional training over six years at Winged Foot Golf Club in Mamaroneck, N.Y., and St. Andrews Golf Club in New York as well as Pompano Beach Country Club and Kings Point Country Club in Sun City Center, Fla.

McGuire is a member of the West Coast Chapter of the Florida Golf Course Superintendents Association, the Golf Course Superintendents Association of America and the Florida Turfgrass Association.



Joseph McGuire

Decision to ration water a course-saver

By Peter Blais

Say "yes" to water rationing. It is hard to imagine the golf industry jumping on the band wagon of that campaign. But it might be the smartest thing in the long run, according to a California water expert.

As golf course superintendents become increasingly involved in the debate over water use and restrictions within their communities, it is important they realize how water use by different groups can affect the way superintendents irrigate their courses, according to Larry Farwell, water conservation coordinator for the Goleta Water District near Santa Barbara.

Superintendents are also likely to find the community more supportive of continuing to provide water for golf courses if moderate, across-the-board restrictions are imposed early, rather than waiting and eventually forcing homeowners to choose between saving their lawns or the turf at the local golf course.

Elected water district officials must do something during a drought, like the one that's left California dry the past half decade, Farwell explained. They get constant pres-



A dead green at Santa Barbara Golf Club, where water was not rationed until it was too late.

sure from the green industry not to cut its water supplies. Consequently, water districts often wait too long to take action and end up imposing severe restrictions that leave ev-

eryone unhappy.

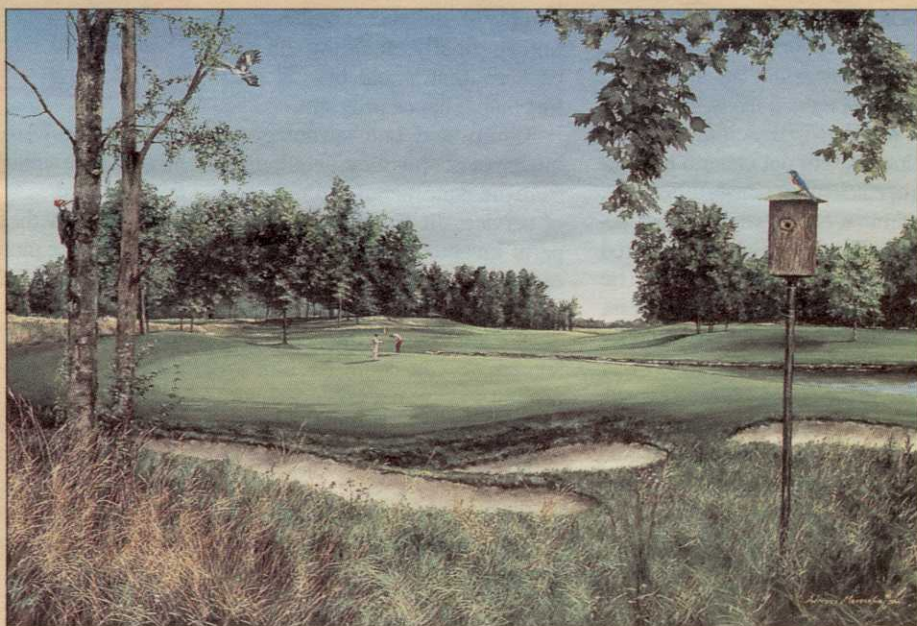
What's the alternative?

"Don't wait," advised Farwell, who is on

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Painting presented Honors Course

A painting by New Rochelle, N.Y., artist Adriano Mannoia depicts the co-existence of wildlife and golf at The Honors Course in Ooltewah, Tenn. The Audubon Society of New York presented the painting to The Honors Course as recognition of its conservation efforts in participating with the nationwide Audubon Cooperative Sanctuary Program for Golf Courses. "I attempted to capture the essence of the course, which not only details the lushness of a fairway and green, but shows the work that the course management has done for wildlife, by featuring a nesting box, as well as a bluebird, mockingbird and pileated woodpecker, three of the feathered creatures that can be found commonly on the course," Mannoia said. Honors club chairman John T. Lupton accepted the oil at the U.S. Amateur Championship held at the course. The print was unveiled Sept. 25 in Memphis, Tenn., at a three-month-long



art show sponsored by One Commerce Square Associates and The Trammell Crow Co. to benefit New York Audubon. The

Cooperative Sanctuary Program is partially supported by the U.S. Golf Association, which also commissioned the Mannoia painting.

Rutgers promises commitment with turfgrass center

NEW BRUNSWICK, N.J. - Hailed as a commitment to maintain the vitality of the turf industry in the Garden State, the Center for the Interdisciplinary Studies in Turfgrass Science will be developed at the Cook College Campus of Rutgers University.

"This is the first center of its kind," said Daryl B. Lund, executive director of agriculture and natural resources and dean of Cook College. "We will work to seize the momentum and maintain our leading status."

"The Center for Interdisciplinary Studies in Turfgrass Science within the New Jersey Agricultural Experiment Station demonstrates the importance that the Experiment Station and Cook College attach to turfgrass research and education," said Lund.

The center, to be housed in Lipman Hall, will continue a long tradition of research in turfgrass on that campus. Turfgrass is a \$500-million industry, New Jersey's largest agricultural commodity.

The center is funded through industry contributions and a portion of the royalty

income from patents in turfgrasses generated at the university. Federal and state funds will also be sought.

The center will do turfgrass research, as well as education and outreach to consumers and professionals in the state. It will also provide a mechanism for faculty from diverse disciplines to work together and will support collaborative regional and national efforts.

Dr. Jaleh Daie, professor of plant physiology in the department of crop science, will serve as the center's director.

"I'm thrilled that Rutgers is committed to this expansion of its turf program," Daie said. "This will maintain the vitality of an important industry in the Garden State."

Daie received her doctoral degree in 1981 from Utah State University and was recruited to Rutgers in 1985 as a Henry Rutgers Research Fellow in what was then the department of soils and crops. She is director of the interdisciplinary graduate program in plant biology and acting chairwoman of the Crop Science Department.

Daie is an authority in carbohydrate metabolism. She and her associates investigate the molecular and cellular mechanisms by which plants allocate various carbohydrates to the economically important portions of the plant.

Turfgrass research began in 1962 at the Agricultural Experiment Station on the Cook campus with work by Dr. C. Reed Funk. A professor of crop science, Funk and his associates hold eight plant patents and more than 50 U.S. Plant Variety Protection Certificates, which are similar to patents, for turfgrass varieties.

Twenty-five Rutgers faculty members from various departments and the Center for Agricultural Molecular Biology work in turfgrass research, teaching and extension. Work at Rutgers focuses on germplasm improvement (expanding the genetic base to develop various favorable traits such as pest and stress resistance) and turfgrass management to develop cultural practices with minimal environmental impact.

Saving now can prevent debilitating cutbacks

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loan from the Goleta district to the California Department of Water Resources to help develop statewide rationing programs.

Encourage moderate rationing at the first signs of drought, he suggested. The savings become a buffer if rain-less weeks drag into years. And the water-saving efforts businesses and people adopt will help the district through the next drought, which will inevitably come.

Farwell's philosophy evolved from his experiences with Goleta Water

District and observations of neighboring Santa Barbara Water District.

The two approached the problem quite differently, said Farwell. "There are enough lessons from what happened that you'll probably want to have input into how rationing affects your communities," he said during a recent irrigation seminar at the University of California at Riverside.

Goleta Water District is west of Santa Barbara, surrounding the University of California at Santa Barbara and serving 74,000 people. Twenty-five percent of the water goes to agri-

culture.

The neighboring Santa Barbara district has 85,000 people with almost no agriculture.

Lake Cachuma is the primary water source for the Goleta and Santa Barbara districts, although Santa Barbara also uses Gibraltar reservoir.

Dry weather led to a 2-percent cut in Goleta's watering rates in 1988, an insignificant amount, Farwell said, but enough to prompt the district to write a rationing plan just in case. Little precipitation during the winters of 1988 and 1989 led to rationing in the Goleta

district in May 1989. The district needed a 15-percent reduction in water use and opted for mandatory rather than voluntary restrictions.

Faced with a similar shortage, but with the cushion provided by Gibraltar, neighboring Santa Barbara chose not to ration.

"We (Goleta) took a lot of flack. People wanted to know why we were rationing when our neighbor wasn't," Farwell said.

The Goleta program was designed not to penalize those who had conserved water and avoid rewarding

water wasters, Farwell said. The district cut golf courses, parks and cemeteries by 15 percent. Based on evapotranspiration rates, agricultural users were cut 10 to 20 percent, depending on their past watering efficiency. The district slashed commercial users 15 percent. Residential cuts were based on a combined per-capita and percentage formula.

"If you have just a percentage reduction, the big users still end up with a lot more water. You cannot have rationing unless people consider it equitable. They just won't be interested in conserving," Farwell said.

The district set per-capita residential rates at 67 gallons-per-day-per-person, enough for inside use with no conservation. In addition, single-family homes received 55 percent of their historical usage in excess of their inside use. The bottom line was no reduction for those who had always conserved up to a 40-percent cut for major water users.

To help people conserve, the Goleta district issued rebates for installing low-water use toilets, provided water-conserving shower heads, distributed information on drip irrigation, and conducted free water audits.

The results?

In the first year of rationing, Goleta asked for a 15-percent reduction. The community responded by using 30 percent less. That buffer allowed the district to forego further cuts the second year and the community voluntarily reduced its water use another 8 percent. The district, in its third year of rationing, is still at the original 15-percent mandatory reductions, but is using almost 40 percent less water than three years ago.

How does that help golf courses? By reducing residential and commercial water use, more water is available, if necessary, for irrigating turf or farm crops, Farwell said. Agriculture is receiving more water from the Goleta district than any water district undergoing rationing in the state.

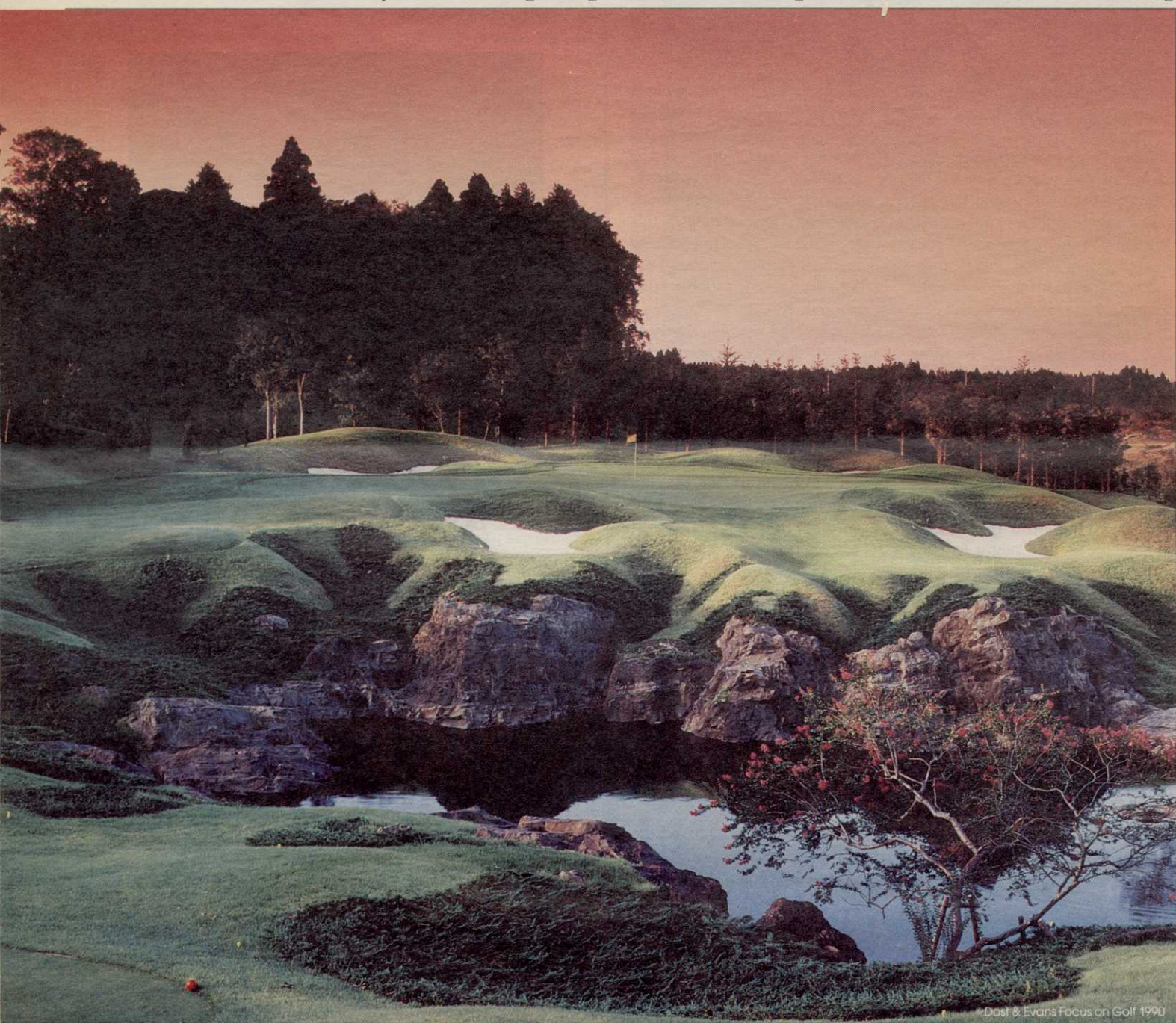
By comparison, the state water system has cut off agriculture completely and the central state project reduced farm usage 75 percent.

Three years after rationing began, golf courses in the Goleta district (Sandpiper, La Cumbre and Twin Lakes) are still receiving 85 percent of their historical use, Farwell said. Agriculture is getting 90 percent. Residential use dropped almost 50 percent during that period, despite the requirement for just a 15-percent reduction.

Physically, all the trees and shrubs irrigated with Goleta district water are alive, Farwell said. Some lawns are brown, especially in residential areas. But that is, somewhat, the result of choice. The district never imposed irrigation or sprinkler bans.

"By using an allocation system, and letting people know how much they have, they can decide where they want to use it. Some people would rather maintain their roses than take showers. It gives people choices," Farwell said.

By contrast, the city of Santa Barbara did not start mandatory rationing



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later, some California communities discover

in May 1989, when Goleta imposed its 15-percent reduction. Instead, Santa Barbara sought a voluntary, 10-percent cut.

"Like most water purveyors, they crossed their fingers and said, 'Let's wait until next winter and maybe we won't have to do anything.' It didn't work out that way," Farwell said.

In March of 1990, the city of Santa Barbara went from a 10-percent voluntary reduction to a 45-percent mandatory cutback. Rather than allocations, the water district imposed increasing block rates. For homeowners that meant 50 gallons per-person-per-day cost \$1. An extra 50 gallons per person cost \$10. The next 50 gallons was \$20.

"Financially, they said, 'If you have a lot of money, you can use water. If you don't, you can't,'" Farwell explained.

The district also banned all landscape irrigation, which really upset the community, he said. "Imagine going overnight from a 10-percent voluntary reduction to being told you can't irrigate any of your landscape. Santa Barbarans are proud of their city and it created a storm, among homeowners and the green industry," Farwell recalled.

Realizing some irrigation practices, like drip irrigation, saved water, the ban was changed within a few weeks to just sprinkler irrigation. That included golf courses. Reclaimed water was excluded from the ban, but no golf course had access to it.

COURSES SUFFER

Golf courses in the Goleta district were concerned about their 15-percent cutbacks, a tough pill to swallow, especially when the golf industry is already fairly water-efficient, Farwell acknowledged. Superintendents concentrated on saving greens, tees and trees while some fairway and rough areas turned brown.

But superintendents in the Goleta Water District were far better off than their counterparts in the Santa Barbara Water District, where golf course irrigation was completely banned, Farwell said. Some Santa Barbara district superintendents brought in trucks filled with reclaimed water to keep greens alive.

Santa Barbara Golf Course did so and lost 75 trees and 14 greens. It rebuilt five greens and re-sodded the other nine at a cost of \$160,000. The course lost another \$400,000 in projected revenues, according to head pro Richard Chavez, who is also Director of Golf at Twin Lakes, which came through the Goleta district's 15-percent rationing in "fine shape."

"Any course should be able to stand a 20-percent water reduction," Chavez said. "But Santa Barbara gambled and lost. This course (Santa Barbara GC) was an absolute disaster. We'd just spent \$1.5 million in renovations to the clubhouse and parking lot, too. It was a bad decision not to allocate water for the course. It's a miracle it has come back at all."

PRESSURE BREEDS MISTAKES

Added Farwell: "The point is that elected officials have to do some-

thing about droughts. They get a lot of pressure from individuals, businesses and the green industry not to do anything and continue to provide water. Under that pressure, they often wait too long to take action that needs to be taken.

"I would strongly recommend that you follow the water situation closely and encourage water purveyors and cities not to wait. Go in a direction early. And get the saved water held over as a buffer."

Southern California was facing a

similar problem two years ago, Farwell said. A voluntary reduction program prior to the winter of 1990 gave way to the possibility of 50-percent reductions when the rains did not come. Limited rain and the creation of the state water bank eventually required just 20-percent cuts.

"Driving a community to the edge of crisis like that may not be the most prudent way to manage your water resources," he said.

To create a buffer that can be used during future dry spells, conservation

practices must be continued once a drought has passed.

"We know there will be more droughts in California," Farwell said.

Water is also much too cheap, Farwell said. Prices don't reflect water's true cost. Federal and state taxes and assistance keep prices low. Many dams and canals, for instance, were financed by 3-percent bonds.

"Water bills don't pay the true cost of water. If they did, people would be more efficient in their water use," Farwell said.

And water is going to get more expensive, he predicted. A 600,000 acre-foot/year desalination plant is being considered in Mexico, just south of San Diego, that would provide water to that Southern California city. Water costs will be about \$1,500 per acre-foot, many times higher than current rates.

The lesson?

"Support prudent use of water supplies and don't resist rationing early. It will be to your benefit if the shortage continues," he concluded.



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