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INDUSTRY NEWS

by adhering to a 12-hour pumping schedule (12 hours on and 12 hours off). The model also indicated that without proper, self-imposed, well field management, the Everglades Club could potentially alter the water quality by increasing chlorides, sulfates, and TDS through upconing. The Everglades Club has voluntarily monitored water quality and water levels in the monitor wells and the production wells.

Regional Drought Conditions

In April 2000, due to regional drought conditions, the SFWMD imposed Phase II (severe) water restrictions in Palm Beach County, among others. These restrictions apply to all surface water and surficial ground water sources. Because the Everglades Club's well field withdraws water from a shallow surficial aquifer, it was included in the restrictions. Due to the uniqueness of the Everglades Club's well field (located on a barrier island with brackish water), the Everglades Club requested from the SFWMD a variance/exception to the water restrictions. The variance was denied based on the reasoning that "under the modified phase 2 water shortage rules, the surficial aquifer system is a restricted source regardless of location, treatment system, or water quality up to that of seawater."

Alternative Water Source No. 2 -Floridan Aquifer

In anticipation of water restrictions during drought conditions, the Everglades Club submitted an application for, and received, a well construction permit from the SFWMD to install one well into the deeper Floridan aquifer. Based on the denial from the SFWMD regarding the variance/exception to the use of the surficial aquifer, the Everglades Club contracted to have the Floridan aquifer well installed. Under the current SFWMD rules, the Floridan aquifer is an unrestricted water source.

No increase in water-use permit allocation was requested, only the transfer of the Surficial aquifer allocation to the Floridan aquifer during drought conditions. This would eliminate the need to utilize the Town of Palm Beach's potable water supply for irrigation purposes during drought conditions and therefore constitutes a reasonable and beneficial use of the state's resources.

At the Everglades Club site, the top of the Floridan aquifer occurs at approximately 1,050 feet below land surface. The water in the Floridan aquifer is brackish, having a chloride concentration of approximately 1,800 mg/L, sulfates of approximately 370 mg/L, and total dissolved solids of approximately 2,900 mg/L.

This water quality is similar to the brackish water from the existing surficial water supply system being treated by the Everglades Club. No modifications to the existing RO plant or discharge will be required.

However, there are minor modifications to monitoring requirements when the Floridan aquifer is being used. Two additional parameters, hydrogen sulfide and un-ionized ammonia, must be monitored and reported.

The Everglades Club golf course irrigation well field can be operated successfully with a withdrawal rate of 800,000 gallons per day withdrawn from one 10-inch-diameter irrigation well designed to produce 556 gallons per minute. This well was recently constructed and should be on line in November 2001.

Cost effectiveness

The Everglades Club was paying \$3.15 per 1,000 gallons for potable water supplied by the Town of Palm Beach. This irrigation water source was costly and subject to mandatory water restrictions. The RO plant was a cost-effective means of reducing the water bill, whether using the surficial aquifer or the Floridan aquifer as the source. The surficial aquifer supplies water for irrigation under non-drought conditions and provided the initial alternative water supply at a lesser cost for installation. However, the surficial aquifer well field was also subject to mandatory water restrictions. The Floridan aquifer well was then constructed at a higher installation cost but has the advantage of not being subject to mandatory water restrictions.

The R.O. water treatment plant at the Everglades Club produces 1,000 gallons of water for \$0.40. Based on the rate the Everglades Club was charged to irrigate with potable water, a 200-acre golf course irrigating 0.20 inches per acre per night (hot,

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presents many challenges. And it's up to you to turn the challenges into opportunities. The problems into solutions.

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INDUSTRY NEWS



To comply with restrictions on withdrawing brackish water from the surficial aquifer during drought conditions, The Everglades Club installed a well into the deeper saline Floridan aquifer to provide water for its reverse osmosis plant to irrigate the golf course.

dry season) would equal a monthly cost savings of \$89,620. Likewise, to irrigate with 0.10 inches per acre per night (cool, wet season) the monthly cost savings would be \$44,814.

Summary

The Everglades Club was paying \$3.15 per 1,000 gallons of potable water used for irrigation. The Everglades Club then built an RO plant and constructed its own well field into the surficial aquifer system. Regional drought conditions caused the Everglades Club to adhere to mandatory water restrictions and once again rely on potable water treated by the City of West Palm Beach. The Everglades Club then installed a Floridan aquifer well, currently an unrestricted water supply source.

The water treatment plant at the Everglades Club now produces water at a cost of \$0.40 per 1,000 gallons. The benefits of switching to the Floridan aquifer during drought conditions are that potable water or surficial aquifer water prone to salt water intrusion is not used and the Everglades Club can irrigate during drought conditions.

To date, the Everglades Club has investigated and used all potential water supply sources currently available. The use of each source has evolved as the requirements and costs of irrigation have changed. The Everglades Club has successfully withdrawn and treated surficial aquifer ground water by skimming a brackish water lens on a barrier island. This was

accomplished through proper well field design, installation, monitoring, and management. Through the use of the newly completed Floridan aquifer well, the Everglades Club will be able to keep its greens alive during drought conditions and will have lessened the impact to the surficial aquifers of the state.

The Suncoast Scramble Began Research Fundraising in 1982

On March 19th, Joel Jackson and I attended the Suncoast Scramble at Misty Creek Golf Club. A check for \$2,500 was presented to me for the

FTGA's Research

Foundation. Another check

When I learned

BENHAM'S BEAT



Don Benham

the history of this event. Boy! Did I go to the right source. Jim had a complete folder on the scramble.

It was started in 1982 to provide funds for research and scholarship for the betterment of golf. Allen Hanchey, was president of the chapter golf program at Sarasota Jr. College. This teaching program was receiving national recognition for its outstanding program of teaching golf to the students. The Suncoast chapter also wanted to be involved with research funding to the FTGA. This certainly was forward thinking for a local chapter in 1982.

Since I live at the Palm Aire Country Club in Sarasota, I was surprised to learn that the first Suncoast Scramble was held there. Checks were presented to Sarasota Jr. College and the FTGA. Jim Larner was superintendent of Palm Aire and the tournament stayed here through 1988.

The Scramble moved to River Wilderness in 1989 with Mike Miles as host superintendent; then in 1990 to the River Club with George Cook superintendent and in 1991 to Bent Tree with Tom Biggy as host. The Venice G&CC and Troy Smith, GCS played host from 1992 to1994. The past seven years (1995 -2002), the event has been at the Misty Creek CC with Tom Crawford as the host superintendent.

Each year the Suncoast Scramble research tournament has grown till it now fills the playing field to capacity. The last few years they have had to turn away some entries. The format has stayed about the same with a golf superintendent, golf professional, general manager, or board member and a supplier making up each team.

In the mid-90s they decided to add some entertainment to the pre-lunch program. One year they perpetuated a giant hoax on the audience by announcing a speaker from the "Penn State Institute of Turfgrass Development" who proceeded to tell the audience they were releasing a new grass that only needed to be mowed once a week even on greens.

The new grass was immune to disease and completely resistant to all pests including mole crickets. The speaker then proceeded to tell the golf superintendents they should probably start to look for a new profession because even a high school student could take care of the golf course.

Jim Svabek told me he watched jaws drop open and eyes widen as the speaker continued. Jim said it was all he could do to not fall off his chair laughing. Of course by the end of the talk most people realized that they had been bamboozled. From 1996 until now, McCurdy's Comedy Club has provided the entertainment.

What a success story for the Suncoast Chapter. Twenty years of the membership working together to successfully have this tournament each year. Their original purpose has not changed. It is still to support research and the betterment of golf in Florida.

P.S. Congratulations to Greg Richardson (from Hibiscus Golf Club) for a hole in one on the 12th hole at Misty Creek in this year's event.

Editor's note: This column was written on March 30, before Tom Crawford's death in May. The column celebrates the success and history of the Suncoast Chapter of which Tom will forever be a part.

Bite Back.

If mole crickets are taking a bite out of your turf, turn revolutionary new Nematac[™] S on 'em. There's nothing else like it. Nothing lasts longer or is safer. Nematac S consists of insect-parasitic nematodes, genetically predisposed to seek out and devour tawny and southern mole crickets. Simply mix Nematac S with water, apply with regular spray equipment and then irrigate. The aggressive nematodes will hunt out and penetrate adult and late instar mole crickets, releasing bacteria that quickly kill their hosts. Then the nematodes reproduce within the carcasses, unleashing a new generation of predators, ready to attack. Nematac S requires no EPA restrictions, no re-entry interval, and produces absolutely no hazardous residue. Produced by Becker Underwood and tested at the University of Florida, use Nematac S with confidence and peace of mind.



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STEWARDSHIP

Still Behind the 8-Ball!

(But there's light at the bottom of the pocket)

STEWARDSHIP NOTES



monthly County Commission meetings on live TV. Talk about bizarre reality show. I recently watched a parade of 20 or

wonders of modern tech-

nology, I can sit comfort-

ably in my home and watch

more citizens which included "activists" and normal every day homeowners like you and me come before

Thanks to the

Shelly Foy

the commissioners to convince them the time was right to purchase some environmentally -sensitive land surrounding a local body of water. There were people talking statistics, people talking money, people talking about growing up around this property and how things had changed. Then, one homeowner got up and made the comment, "If we don't do something now, we might as well just give up and let there be wall-to-wall golf courses".

The tone in this homeowner's voice when she said golf courses - you would have thought she was talking about toxic waste dumps. I thought, Well, this is obviously an uninformed person."

Then the reality dawns.

She truly believes golf courses are horrible things, and what's more, there are tons of people just like her. In addition to not liking golf courses, they stand up in front of county commissioners and have no qualms about saying how bad they think golf courses are. No research, no credible information, just a general dislike or distrust.

Over 10 years of environmental research and 10 years of education efforts through the Audubon Cooperative Sanctuary Program for Golf Courses (ACSP), and you know what?

We are still behind the eight-ball. We have spent all this time trying to

educate the golf industry about environmental issues, and how far have we come? I still can't convince more than 260 out of almost 1400 golf courses in my own state to use the best education program available to us (ACSP). If we can't even get it together in our own industry and step up to the plate, how in the world are we going to convince the general public that we are not the bad guys?

Yes, I know that participating in the ACSP is not the only way to show environmental stewardship. However, it is the most widely recognized and industry-supported program we have. Even if you are already doing a lot of positive environmental things on your golf course without the ACSP, what means are you using to promote these efforts?

Audubon International has set a fiveyear goal of getting 8,000 golf courses involved in the ACSP. We are currently at 2,146, and as mentioned previously, fewer than 260 in Florida.

The time is right for you to get involved with this program and help us to get the word out to people in your community that golf courses and golf course superintendents do care about environmental issues. It will make our message a lot more credible when we can say 1,400 golf courses in Florida are working on environmental programs instead of 258 out of 1400. Perhaps then the day will come when none of us will have to hear people stand up and lambaste an industry that we obviously believe enough in to spend our lives doing it.

Just joining the program is not enough. You need to read and work through the certification workbook so that you will know you are doing the best you can for that property. Saying you are doing it and knowing you are doing it are two entirely different things. That's the bad news. For some good news read on.

You Can Make a Difference

One person, one golf course, can make a difference when it comes to educating the public about golf and the environment. Jim Schilling, golf course superintendent and his club, Bonita Bay East, are doing their part to educate the public about golf courses and the environment. This past year, they hosted 13 groups at the golf course, including one high school class and 12 elementary school tours.

The high school class was part of a Work Skills Program created to give high school students opportunities to learn about careers available in Southwest Florida. This program is a joint initiative of the School District of Lee County, The Foundation for Lee County Public Schools, Inc., and local business and industry.

Students spent time working with golf course employees to learn "hands on" about things



Bonita Bay East Superintendent Jim Schilling hosts multiple elementary school tours each year and hosts high school students and teachers in education and industry sponsored work skills programs. like automated irrigation technology, IPM practices, recycling, use of native plants in landscaping, energy conservation, mechanical equipment and overall golf course operations. The title of Bonita Bay East's program was "Sharing the Land" and was developed so that students can learn how a golf course and local wildlife and native plants can exist in harmony.

Another part of the Work Skills Program involves teachers spending a week working with various businesses and industry. Bonita Bay East has participated in this program for many years, and Jim says that this is his fourth year of hosting a teacher for one week. The club pays a \$500 stipend to cover the teacher's workweek. During this week, the teacher learns all areas of golf course operations including IPM, irrigation, and equipment management. At Bonita Bay East, this program also exposes the teacher to the Audubon Signature Program. The teachers then take back all the information they have learned and share it with their students in the fall. According to Jim, "In a sense, the teacher becomes a steward for golf courses and the Audubon Signature Program".

What better way to get the word out to the public about golf and the environment than through teachers and students?

Wildflower Meadows at Bonita Bay East

Applewood Seed Company in Colorado developed a special blend of wildflower seeds specifically for Bonita Bay East. The company worked with Jim Schilling, superintendent, to develop a mix of seeds that would have a strong chance of reseeding in the Southwest Florida area. There are 15 species in this mix, and according to Jim, some species work better than others. There are 242,000 seeds per pound, a recommended planting rate of 11-22 pounds per acre, and the cost of the seed is \$24.00 a pound. Schilling has planted 3 to 4 acres to date. Benefits of the wildflower areas include:

- No irrigation needed after initial establishment
- No mowing or fertilizers required in these areas
 Creates habitat for butterflies and other insects, as well as turkey, deer, fox and numerous bird

species

Environmental Case Study: Habitat Enhancement Fred Klauk coordinated a Red Fox

Environmental Enhancement project at TPC at Sawgrass to enhance and reestablish the red fox population. They created an environment for fox reproduction by building a steep bunker face in an out-ofplay area to improve habitat and prevent disturbance by golfers.

They met their goals of providing suitable habitat and increasing the native fox population. They did have to reroute cart traffic away from the bunker to prevent disturbance and they marked the area with signs so the golfers would know what was going on.

The results were great! The foxes have reproduced every season.

Both golfers and employees have enjoyed this habitat enhancement project. Surprisingly, the report is that even hosting the Players Championship has had no effect on the mating foxes.



Wildflower Meadows at Bonita Bay East. Benefits of wildflower areas: No irrigation needed after initial establishment. No mowing or fertilizers required in these areas. Creates habitat for butterflies and other insects, as well as turkey, deer, fox and numerous bird species.

One More Reason to Be Proactive

(Editor's note: Judge the credibility of the source for yourself, but this is the kind of material that is getting published and broadcast. Shelly shares this information as a wake-up call for the golf industry)

A recent report called States of the Union: Ranking America's Biodiversity, prepared for the Nature Conservancy, has some disturbing news for Florida. The report looks at 21,395 known native plant and animal species in the U.S. and ranks the species at risk.

How does Florida measure up in this Study?

• 14.3% or 624 of 4,368 of our native species are threatened by extinction

- 3rd in the US in percentage of reptiles at risk
- 4th in percentage of birds at risk (Only three othe states have a higher percentage of birds at ris than we do)
- 6th in the nation for plants at risk
- In the middle, as far as overall fish species that are endangered.

We all know that the big threats are coming from habitat destruction and degradation. A major problem we have in Florida comes from the spread of invasive species, which are choking out our natives. Golf courses in Florida have an excellent opportunity to recreate some of this lost habitat. There is a lot of "how to" information available on this from both Audubon International and the USGA.





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SUPERINTENDENT JOURNAL



Mark Jarrell at Tabacon Resort in the shadow of active volcano Arenal. While it hasn't had a major eruption m many years, four people were killed while observing the volcano up close in August 2000. Jerry Redden, outclimbing his out-of-shape partners, made it more than halfway up Arenal in 1996 before the venting gases and tinkling lava rocks falling about him caused him to reconsider the wisdom of our adventure and contemplate the meaning of the words "active volcano."



A typical school house. The children all wear uniforms and are neat and clean despite walking along dusty roads. Note the soccer field. Every town has a school, a soccer field and a Catholic church. Three towns actually had basketball courts.

The pool at Tabacon Resort, which is filled with water heated naturally from springs flowing from the Arenal volcano.

The Fifth Step in Renovation

In April, Kevin Downing, CGCS, Willoughby Golf Club, and I found ourselves facing major summer reconstruction projects. Kevin was going for a complete 18-hole renovation, while I was looking at rebuilding and replanting ten greens to TifEagle. The long, hot summer ahead of us convinced us to insert one more step in the reconstruction process: take a week off and seek adventure and relaxation in Costa Rica before the work begins! Costa Rica is an incredibly beautiful, diverse, and friendly country. This was Kevin's first visit and my second, having traveled there six years ago with Jerry Redden, CGCS, and Mike McLaughlin. Costa Rica has become a favorite destination for many Americans and Europeans, from "eco-tourists" to those hoping to land a record black marlin m the Pacific off the coast at Quepos. As a change of pace from my usual column (and because

MARK MY WORDS



Mark Jarrell, CGCS

I can't write poetry like Joel Jackson), I thought my peers might enjoy a photo journey to this amazing country.



This was the highlight of the trip. This adrenaline rush at Monteverde is called Sky Trek. You are given a small harness, helmet, gloves, safety line, and pulley to go flying over and through the rainforest on eleven different cable runs. In this photo, Kevin Downing is seen arriving on the first "bunny" run designed to ease your jitters and instill confidence that you haven't lost your mind for paying \$35 to produce a heart attack. The Pacific Ocean south of Dominical, a sleepy little surfing town. A larger town to the north, Jaco Beach, is also popular with American surfers. If you're not into surfing, you can ride horses along the beach. Even though it was the dry season, there was still enough water flowing from the mountains to the oceans to provide picturesque scenes like this and an exciting whitewater rafting adventure on the Rio Toro. As of this writing, I still haven't received the photos of the rafting trip I paid for, which may be the only negative thing I can say about our entire visit to Costa Rica.



A view of the dry countryside on the rocky road from Arenal to Monteverde. Costa Rica receives as much as 150 inches of rainfall a year, but April is the driest month. Their tourist season is similar to Florida's - most visitors have left the country by the end of March. It was interesting to note full staffing at the various hotels despite being "off season", with staff sometimes outnumbering guests.

2001 FLORIDA GREEN PHOTO CONTEST • CATEGORY 4

Scenic Hole Category 4 - includes sunrises, sunsets, frosts, storms or any other interesting view of a golf hole.



1st Place - Rainbow's End by David Bailey, CGCS, Turnberry Isles C.C.



2nd Place - The 9th Hole by Tom Trammel, CGCS, Hawks Nest G.C.

Contest Categories

Category 1 - Wildlife on the Course: includes mammals, birds, reptiles, amphibians and insects.

Category 2 - Formal Landscape: includes annual beds, shrubs, trees, and entrance and tee sign beds.

Category 3 - Native Landscape: includes native plant beds, aquatic vegetation plantings, natural areas and any other use of native plants on the course.

Category 4 - Scenic Hole: includes sunrises, sunsets, frosts, storms or any other interesting view of a golf hole.

2002 Florida Green Photo Contest Rules

Easy Rules

1. Submissions for judging must be a color or black and white photograph or a slide. No computer print outs of digital photos will be accepted. Only one entry per category. Don't make us choose.

2. Photo must be taken on an FGCSA member's course and taken by the member or a member of his/her staff.

3. Attach a label to the back of the photograph which identifies the category, course and photographer. Do not write directly on the back of the photograph. Attach the photo or slide to a piece of 8.5×11 sheet of paper with a loop of masking tape for easy removal for handling.

4. A caption identifying the category, course and photographer should be typed or printed on the paper below the photograph.

5. Judging will be done by a panel of FGCSA members not participating in the contest.

 Mail entries in a bend proof package/mailer to Joel Jackson,
 6780 Tamarind Circle,
 Orlando, FL 32819.
 Deadline for entries is
 August 1, 2002.

Prizes

- 1. 1st Place (\$100). 2nd Place \$50 in each Category
- 2. Editor's Choice Best Overall Photo - \$100
- 3. All winning entries will be published in the Florida Green.