

"For two days we just wandered about the house trying to save what we could. The ceiling in the living room was still there so we moved what we could into that area. The next day, it too fell in. So we pulled all we could out and moved it to the kitchen, the only room with a ceiling left." — Ed Ramey





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Relief Fund helped employees recover

• ...The people who needed help the most not only didn't have telephones, they no longer had addresses! •

hree years ago, David Meda, assistant superintendent at Boca West CC, suggested that Florida superintendents might want to send some money to their colleagues in coastal South Carolina who had been hit hard by Hurricane Hugo.

"That could just as easily have been us," he said at the time. "Sometime it *will* be us."

So with the blessing of the FGCSA board of directors and some help from Executive Secretary Marie Roberts, Meda conducted a fundraising campaign for South Carolina golf course employees who needed help in recovering from Hurricane Hugo. His fund drive netted \$4,395, including donations from the state organization, five chapters and several individuals, many of them suppliers.

Three days after Hurricane Andrew leveled much of South Florida last August, Meda's fund-raising juices began flowing once more. At the board meeting of the Palm Beach GCSA at Emerald Dunes GC in West Palm Beach Aug. 27, Meda proposed that the chapter establish a relief fund for Andrew's victims, specifically the golf course maintenance employees whose shelter, clothing and means of transportation were part of the \$10 billion in property destroyed by the storm.

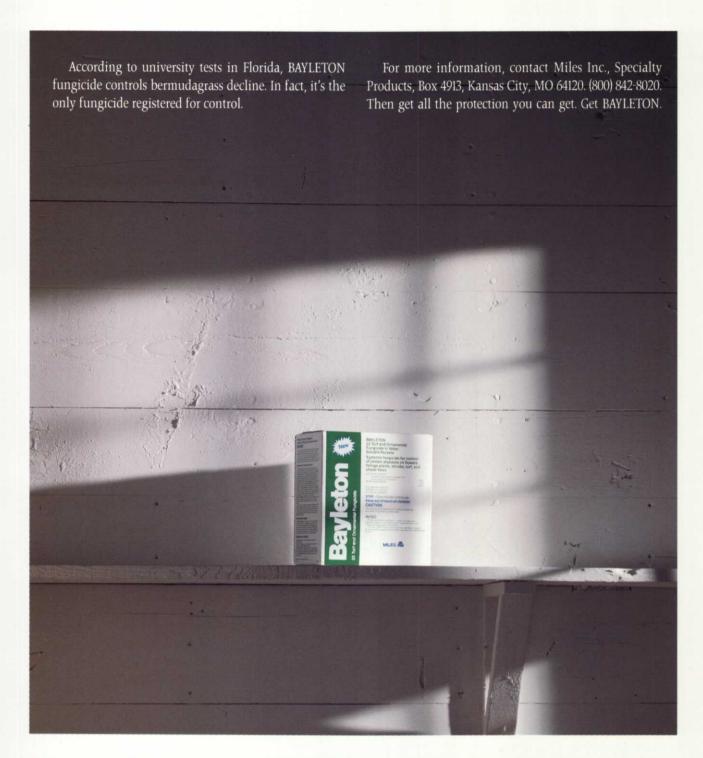
"We liked David's suggestion and decided to donate \$1,000 to the effort," says Paul Crawford, president of the Palm Beach chapter, "but we thought it was a project for the state association." Crawford, who also is vice president of the Florida GCSA, referred the suggestion (and the check) to the state board which quickly established the Hurricane Andrew Relief Fund and asked Roberts to enlist the support of the GCSAA in publicizing the relief effort.

The national organization responded quickly, not only by sending a news release to



After putting in long hours helping their golf courses dig out from the destruction left by Hurricane Andrew, hundreds of golf course employees went home to hungry families in severely damaged houses and apartments. The FGCSA Hurricane Andrew Relief Fund helped many maintenance employees begin to put their lives back together.

PHOTO BY ED RAMEY



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Hurricane Andrew Relief Fund Donors

| Donor | Amount | Grp total |
|-----------------------|---------|-----------|
| GCSAA | \$5,000 | |
| Florida GCSA | 1,000 | |
| | | \$6,000 |
| Florida chapt | | |
| Central Florida | 1,000 | |
| West Coast | 1,000 | |
| Palm Beach | 1,000 | |
| South Florida | 1,000 | |
| North Florida | 500 | |
| Treasure Coast | 500 | |
| Florida Ch | 6,000 | |
| | | |
| Out-of-state | | |
| Carolinas | 2,500 | |
| West Virginia | 1,000 | |
| Central Illinois | 750 | |
| Finger Lakes | 500 | |
| Long Island | 500 | |
| Mid Atlantic | 500 | |
| Ontario | 500 | |
| Western Michig | an 500 | |
| Connecticut | 400 | |
| Greater Cincinn | ati 250 | |
| Out-of-State Chapters | | 7,400 |
| Misc. Individual | s 790 | 790 |
| Total | | \$19,190 |

all chapters and media outlets, but also with a check for \$5,000.

"We are also encouraging all GCSAA chapters and members to help with this effort with contributions," wrote GCSAA President William R. Roberts, CGCS. "We hope that golf course employees as well as everyone affected by this tragedy will recover quickly."

As of early December, \$19,190 was raised, including \$6,000 from Florida chapters, \$7,400 from out-of-state chapters and \$790 from individual superintendents.

"It was the help from national that really made it a success," says Roberts. "The \$5,000 check obviously was a big help but their news release and support is what got the money coming in from around the country. That's what made the difference."

The second-largest contribution came from the Carolinas GCSA, which reciprocated for the FGCSA's earlier relief assistance for Hurricane Hugo with a check for \$2,500. Some of the individual contributions came from superintendents in the Carolinas as well.

As of mid-December, \$15,400 had been distributed to 32 employees at nine different golf courses in southern Dade County.

In some respects, finding the right people to help was harder than raising the money.

"We wanted to make sure we got the money to the people who really needed help, not just to those who were first to get in line," said Bill Entwistle, Jr., president of the South Florida GCSA, the organization charged with distributing the funds since the most heavily damaged area falls within its boundaries.

"The phones were down and, most likely, the people who needed help the most not only didn't have telephones, they no longer had addresses," he said. So Entwistle enlisted the aid of some supplier members who lived in South Dade

Apartment survives storm but not looters

Miguel is a spray technician employed at the same golf course since 1987. He lived with his wife and 2-year-old daughter in Leisure City, which is about midway between Kendall and Homestead.

The apartment building where he lived received little structural damage, but his car was badly damaged by flying debris. However he lost quite a bit more in the two days following the storm. While he was out trying to find other members of his family, thugs and hoodlums took control of the apartment building and looted, stole or wantonly destroyed nearly all the possessions of the tenants who weren't home to defend their property.

Damage to the car was covered by insurance but he has lost all his personal possessions and has no place to live.

Relief Fund Assistance Granted

| Facility Recipie | ents | Grants | |
|-------------------|------|----------|--|
| Calusa CC | 3 | \$1,500 | |
| Card Sound GC | 4 | 2,000 | |
| Coral Gables CC | 5 | 2,500 | |
| Deering Bay CC | 3 | 1,500 | |
| Doral Resort & GC | 3 | 1,400 | |
| Indian Creek GC | 1 | 500 | |
| Keys Gate GC | 3 | 1,500 | |
| Palmetto GC | 6 | 3,000 | |
| Riviera CC | 4 | 1,500 | |
| Total | 3 2 | \$15,400 | |
| | | | |

or at least traveled to the area frequently.

"We asked them to stop at every golf course along the way and let them know that this help was available," said Entwistle, who noted particularly the help of John Mahanna of Nucrane Machinery and Mark Richard, CGCS, of Metro Dade County.

"We asked the superintendent to contact me or one of the other board members and describe the situations of his people who might qualify for the funds," he said. "If we didn't think they were as bad off as some of the others, we told the superintendent up front. If we thought they qualified, we asked the superintendent to put the application in writing."

After talking to several superintendents to get a good feel for the worst-case needs, Entwistle and his board members reviewed the first half-dozen applications as a group to establish some criteria based on the applicant's insurance, immediate needs and prospects for help from other sources. The SFGCSA board authorized Entwistle to screen the rest of the applications, using the criteria the directors had established.

"We think we did a pretty good job of getting some help to everyone who needed it the most," he says, "We still have a few applications pending but we're kind of holding off, hoping we get some more money in so we can give them as much as we gave the others.

"And we have a few people who could have used much more help than we were able to give them the first time around.

Elderly mechanic loses auto to falling tree

Armando is an elderly mechanic who is close to retiring from the golf course where he has worked since

He and his wife own their home but they did not carry enough insurance to cover the extensive damage it received: part of the roof and the interior walls and nearly all their furniture and clothing. Their car was damaged by a falling tree.

He received some help from FEMA toward the clothes and furniture but nothing toward the car.

"If we had another \$4,000 or \$5,000, we could use it, but I don't think we would need more than that to do the job that the fund was intended to take of."

"...For any organization to offer assistance not only to members, but to members' staffs as well, in these situations is a very commendable act," wrote Rodney McNeill, superintendent at Calusa CC in Miami. "It makes me really proud to be in this profession and to be a member of the SFGCSA."

While the association expects to virtually empty the special tax-exempt bank account through which the donations were made, the account itself may not be closed. "This is Florida," said Crawford. "We'll probably need it again. There have been some discussions on keeping it open but dormant. It will make it that much easier next time."

According to Entwistle, the best thing a chapter can do to prepare for "next time," is to set up an emergency communications plan to get in touch with all members when the phones are down and most of the roads are impassable.

"We could have reached the people who needed help a lot quicker if we had set up a system for contacting everybody that didn't require telephones or electricity," he said.

Mechanic lost home; wife's job destroyed

Jose is a head mechanic, employed at the same golf course since 1985. He and his wife and five children live in a rental home near the Country Walk development which received extensive news coverage for the devastation it suffered.

None of their personal property - clothing, furniture, personal effects - was insured.

Jose's wife lost her job when the department store in Homestead where she worked was destroyed by the storm.

The family had two cars. The better one was destroyed (no comprehensive insurance) and the other is running on Jose's ingenuity.

Although Jose's landlord is rebuilding the house as quickly as possible and he has a place to stay in the meantime, he must replace the family car and his clothes, furniture and personal items.

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SEPTEMBER/OCTOBER 1992

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The wrecking and rebuilding of Deering Bay Country Club

BY JOEL JACKSON, CGCS

Prelude

Last August, Jim Ellison, CGCS, sat in front of the TV nervously watching as Hurricane Andrew snaked its way unflinchingly toward the Florida coast. But where will it hit?

As the days passed before the inevitable landfall, ground zero shifted southward from Vero Beach to Palm Beach, and finally to Miami.

Ellison is the director of agronomy for the Arnold Palmer Management Group based in Orlando. He had been ticking off the golf courses under his direction that could be potential victims of the storm's fury. Finally, the battle lines were drawn. The last known position of Hurricane Andrew indicated a probable landfall just south of Miami, and Deering Bay CC appeared to be in Andrew's path.

Deering Bay CC is located on the western shore of Biscayne Bay. Once the site of the old Kings Bay Golf Club, the layout had been redesigned and rebuilt by the Palmer company. Grow-in was recently completed and the course was in beautiful condition, and Jim was pleased with the job that construction superintendent Bobby Miller had done.

Jim began a search for a permanent superintendent, but that search was to be interrupted by Andrew. The Deering Bay staff packed up and removed what merchandise and furniture they could from the temporary pro shop and sales center and brought all the maintenance equipment into the maintenance building.

Like the rest of South Florida, there was nothing more to do but wait and hope and pray.

Aftermath

The actual point of the hurricane landfall was estimated to be a few miles south of Deering Bay. That put the course in the path of the strongest winds and the maximum tidal surge. Like the coastal courses in South Carolina that felt the wrath of Hurricane Hugo, Deering Bay was punished severely by Hurricane Andrew. There wasn't a single tree left standing or intact. Debris literally covered every square foot of the project. A high-water mark left on the interior walls of the maintenance building was 8.5 feet off the ground. Since the maintenance building was located on some of the highest ground in the project, it was estimated

that most of the course was inundated by 12 to 15 feet of water for a period of 10 to 12 hours. While the wind damage was the obvious witness to the destruction, it was the flooding that caused the greatest problems to the course.

The entire inventory of turf maintenance equipment was rendered useless and unsalvageable by the lengthy submersion in salt water.

The entire irrigation system, including the pump station and field controllers suffered the same fate. Individual heads were packed with sand, silt, and debris. On many holes 2 to 3 inches of sand and silt buried the turf. All bunkers had lost their shape and definition. Erosion destroyed gentle rolls and swells. Trees and other wind blown objects were dragged across the turf and ripped it to shreds.

All of this surface and mechanical damage paled by comparison to the potentially disastrous effects of the salt contamination of the irrigation water supply and the turf and underlying soil profile.

Realization and reaction

The Hurricane hit on a Monday. Jim Ellison and Bob Holtzman, vice president of operations for APMG, were on the second or third flight into Miami after the airport opened. They anxiously made their way through the littered streets to the Deering Bay site. And a "site" is exactly what it had once again become. The early reports out of Miami weren't encouraging, but Jim was not was prepared for what he saw. "The initial viewing of the destruction was just gut wrenching. Beyond words. Just incredible. I mean — boats on top of houses."

Since Deering Bay had no current superintendent, Jim enlisted the aid of three APMG superintendents from central Florida to help supervise and coordinate the initial recovery effort. They were all quartered at hotels in town and had to make the tedious trek to and from the course. A 15-mile journey that usually took a few minutes now lasted 45 minutes to an hour.

Dwight Kummer from the Bay Hill Club in Orlando was the first to arrive. "I literally had to blaze a path to the entrance of the property and cut my way through to the course. Everything was totally devastated. I have never seen anything like it."

When asked what his course would look like after a storm of this magnitude, he replied simply, "probably about the same." And what steps might he take to

 Beyond words.
 Just incredible

• It was the flooding that caused the greatest problems •

6 Pictures and words don't do justice... 9

minimize the damage to his equipment?

"I would try to disperse my equipment to locations that would be relatively safe from flooding." The lack of power and unavailability of supplies so soon after the storm prevented Dwight from making very much progress other than some rudimentary clearing.

Tom Trammell, CGCS, of the Turtle Creek CC in Rockledge was the next volunteer in rotation to head south and lend a hand. He packed up his truck with ice, food, and basic supplies, and what proved to be the first chain saw to arrive on site. As he approached the wasteland that was once South Miami, he recounted his first impression, "The destruction was incredible. It was so eerie and unreal. It gave me goose bumps and made the hair on the back of my neck stand up. It was saddening to see the results of hundreds of years of growth wiped out in a flew hours."

By the time Tom arrived, curfews had been implemented and roadblocks installed, which compounded the slow trip to the course each day. While Tom got involved in some of the early agronomic recovery, he says one of his biggest contributions was just bringing in basic supplies.

While the resident staff was understandably in shock, Tom felt that the volunteer staff had good morale and tried to get things going.

And what lessons did Tom learn from his experience?

"Well, I didn't waste any time in beginning to put together a hurricane plan for Turtle Creek. I involved everyone in management to determine specific lines of communications and responsibilities."

By the time Steve Sorrell of the Metro West Country Club in Orlando got to Deering Bay, the course was mostly cleared except for the 18th hole. Steve's reaction to the destruction: "Pictures and words don't do justice to seeing the real thing. You just can't comprehend the magnitude and scope of this damage from photos and TV images." That magnitude

of damage was illustrated by the fact that it took 15 people a day and a half to clear that 18th hole.

While in Miami, Steve contacted an old friend Jerry Broome, superintendent of The Club at Emerald Hills, who lived in the South Miami area. Jerry said of his experience of riding out the storm, "I'll never stay again. It was the first time in my life that I have ever really been scared." Steve echoed that sentiment when asked how he would prepare Metro West for a hurricane like Andrew. "No amount of preparation could prevent the kind of damage that I saw. Of course we'd take what precautions we could, but I would have to evacuate my family from the area and come back when it was over end put it back together."

Putting pieces back together

After the debris-clearing was accomplished, the battle to save the turf began in earnest. Since Dwight, Tom, and Steve had their own courses to manage in Cen-

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Salt damage on the 16th green was so severe that the green was lost.

PHOTO COURTESY APMG

• Greens were barely kept alive by hand watering •

tral Florida, Jim rehired Bobby Miller, the original grow-in superintendent, to supervise the tedious day-to-day operations that would be necessary to restore Deering Bay. "We were fortunate in being able to get Bobby back. He knew the course and where everything was located. He did an excellent job."

New turf equipment was brought in, a new pumping station installed, and portable generators hooked up to provide power. The mud, sand, and silt that covered several holes was swept up by rotary street brooms mounted on tractors and hauled away. The salt-soaked grass began to wilt and scald under the hot sun. The turf desperately needed fresh water. The deep wells that filled the irrigation holding ponds were tested and after flushing for 30 minutes pronounced fit to use. But the ponds were contaminated with sea water and unusable. After four to five days of sun and heat, the parching effects of the salt were becoming almost terminal for the turf. Greens were barely kept alive by hand watering with a 150-gallon spray tank.

Finally, mother nature relented and provided rain showers that aided in flushing the salt from the turf. It took nearly a month of alternately filling and draining the irrigation ponds to decontaminate them.

After the rains reduced the stress caused by the salt, mowers began mowing the tees and fairways approximately two weeks after the storm. Once the irrigation system was back in operation, two applications of gypsum at a rate of two tons per acre were applied to neutralize the remaining residual salts. A wall-to-wall granular fertilizer application was made in between the gypsum applications.

A program of reinstalling the \$1.5 million landscaping that was wiped out took just as much patience. Since the local nurseries' inventories of tropical plants were also destroyed, the owners had to find replacement plant material in

other Caribbean and South American countries.

If there can be a silver lining found behind the cloud of destruction of Deering Bay, it would be the addition of an aquatic driving range and the rerouting of three holes. The original land forms just didn't logically provide space for a driving range. The storm damage to a couple of holes necessitated some redesigning.

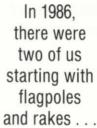
The first, second, and 13th holes had to be moved, and the water hazard expanded on the 13th to create an island green and the additional "aqua range."

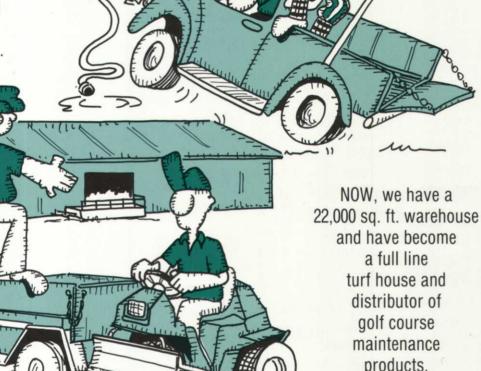
On Dec. 15, approximately four months after Hurricane Andrew destroyed the Deering Bay CC, Jim Ellison, CGCS, once again boarded a plane for Miami. This time it was to celebrate the tremendous rebuilding effort and the grand re-opening.

1



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Character-building experience for people who work with nature

this past September from Hurricane Andrew. We have been told every year that it could happen, but we have been spared a major storm for several decades.

It finally happened, and with such

South Florida got a rude wake-up call

It finally happened, and with such devastation that it boggles the mind. Entire neighborhoods just vanished in truckloads of debris. Indeed, it was a grim reminder of the sheer power and magnitude of force that nature can unleash. Recovery and restoration has been a slow process as people who have never witnessed such destruction painfully learned that what man has joined together nature can easily put asunder.

Of course the true measure of people is how they respond to difficulties and challenges. I don't doubt for a minute that the people of South Florida will rebound with determination and tenacity and rebuild their homes and businesses. Among them will be our brother superintendents who have had to put their courses back together from the chaos and damage generated by the hurricane.

While the magnitude of this clean-up and restoration back to normal is way off the scale from what many have ever faced before, the patience and perseverance that superintendents have come to practice when dealing with the vagaries of nature will stand them in good stead. Superintendents are used to managing turf during times of severe drought, waiting out day after day of thunderstorms that prohibit routine

mowing and grooming, days and weeks of overcast skies which weaken and discolor their greens, unseasonable cold snaps that shock the turf, and likewise surprise warm spells in the fall that threaten newly overseeded greens.

While some of these dealings with nature seem trivial in comparison with the aftermath of the hurricane, they are the character-building experiences that make up cloth from which people who work with nature are cut. They are tough and resilient. They don't try to "fool mother nature," but rather apply their skills and knowledge to offset the conditions presented by nature.

It has been said that the disaster has brought many people together as they work for the common goal of rebuilding their homes and neighborhoods. I hope that likewise the members of the affected golf courses in the area will gain a better appreciation for the hard work, dedication, knowledge and ingenuity of their respective superintendents as they restore playable conditions to the courses.

Hopefully, they will work closer together in the future to minimize the damage and negative effects of storms, floods, and drought by investing the infrastructure at the club and participating in the regulatory process of our natural resources.

A parting thought from John Milton's, *Paradise Lost*:

"Accuse not Nature! She hath done her part; Do thou but thine!"

Green Side Up



Jack D. Jackson

Joel D. Jackson, CGCS