



Falcon Fairways GC at Homestead Air Force Base, an 18-hole course for military personnel, was the only course permanently closed as a result of Hurricane Andrew.

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DWIGHT MELGAARD,
LINKS ADVISORY COUNCIL

from a Hurricane Andrew nightmare

assess. Many of the most badly damaged courses are private and private golf clubs don't discuss expenses in public. Period.

Of the 42 courses responding to the FGCSA survey, loss estimates ranged from a few thousand dollars to more than a million. Most of the expense was for cleanup. Ranking second was tree replacement. A handful of courses experienced heavy structural damage — maintenance facilities and equipment, clubhouses and irrigation systems were the principal victims.

It is difficult to extrapolate an overall estimate from the survey responses because the questions were not phrased precisely enough (by Janlark Communications) to force comparable data. Still, we would be safe in putting the total cost to south Florida golf courses in the neighborhood of \$30 million, possibly much more if you throw in personal losses by golf course employees.

We could find only one golf course that has been closed as a result of the storm — and that one only because it no longer has a client base. Homestead Air Force Base has been leveled and its personnel shipped to other installations. The base golf course is

By an exponential factor, Hurricane Andrew was the greatest natural disaster in this nation's history



A 40-ton crane is used to lift a fallen oak tree at Don Shula's Hotel and Golf Club, Miami Lakes.

PHOTO COURTESY OF SCOTT WAHLIN

Except for those most badly damaged, most courses were back in operation within a week

not damaged beyond repair, however, and sources say it could be renovated if a golf course is appropriate for the site once its new use is determined. Although we could not confirm it directly, several South Florida superintendents said they understood the greens at Homestead AFB are being watered enough to keep them viable.

Other courses in or near the path of Andrew's eye—Redlands, Keys Gate, Card Sound, Kendall and Palmetto — have reopened.

Except for those most badly damaged, most courses were back in operation within a week — some within two days. Palmetto was closed for 70 days, Riviera CC in Coral Gables for nearly a month. Card Sound, at the northern end of Key Largo, reopened in three weeks. "We weren't really ready to open," notes Card Sound's Lee VanValkenburg, "but it was important to re-direct the crew's focus on why we were there in the first place."

Andrew's punch was felt all the way over on the west coast. Hibiscus GC in Naples was closed for 15 days to clean up more than 500 fallen trees and repair damage to 30 sprinkler heads, 22 irrigation control boxes and 10,000 feet of water lines.

Tree damage was the universal experience along Andrew's

path. The typical course reported more than 500 trees uprooted — Doral had 2,100 — and perhaps 200 more so badly damaged that they had to be cut all the way back.

Surprisingly few trees were lost, however. Most were set back up, trimmed, restaked and were thriving by mid-December, when this report was written.

"Nearly all the trees we lost were 'garbage' trees — exotics that we were glad to be rid of," wrote one superintendent.

To a certain extent, cleanup costs were inversely related to the length of time the course was closed. Some course managers opted to clear debris as quickly as possible to minimize loss of revenue or inconvenience to members. Others elected to clean up with fewer people over a longer period of time. In those cases, loss of income was not reported as part of the cleanup cost.

"The key to saving money on cleanup was timing," says Steve Kuhn, superintendent of Doral Resort. "The earlier you contracted help, the better. A few days after the storm, it cost \$170 to have a ficus tree uprighted. Now (mid-December) the price starts at \$700."

Kuhn also saved money by subcontracting all the cleanup work himself.

"The problem with a turnkey operation is that a lot things get

Even three months after the storm, transportation is still difficult

lost," he said. "The general contractor will concentrate on one thing at a time, whereas we could work on several projects simultaneously."

Card Sound's VanValkenburg, who also is responsible for the two Ocean Reef courses, found the experience he gained from Hurricane David a decade ago when he was at John's Island Club invaluable.

"I learned that you can't do it one hole at a time," he reports. "First you have to clear off all the greens, then the tees and fairways, getting all the debris into a few big piles before hauling it off."

It may be inefficient to clean up one hole at a time but it's easy to clean up 90 holes at once... if you have 130 workers at your disposal, as did Kuhn.

"We gave each worker a golf cart and responsibility for one hole during the first phase of the cleanup," he reports. "Each worker drove back and forth across his fairway, dragging everything into the roughs. We had the courses cleared by Wednesday, the fairways mowed by Thursday and we were open Friday. Once we got the debris into the roughs, we burned nearly 70 percent of it before the county decided to pull all burning permits."

Kuhn also noted that Doral will not purchase a single replacement tree, even though he lost about 900. "Our property is so big that we can move trees around to where we need them," he says.

While downed trees were the most visible problems that superintendents had to deal with, their real difficulties centered on communication, transportation, staff morale and power.

According to VanValkenburg, one of the most valuable commodities after the storm was a spare tire.

"It was impossible to drive very far without picking up nails in your tires during those first weeks," he reports. "I gave my spare tire to one of my crew so he could get back and forth to work but I soon regretted not having a spare myself."

Even three months after the storm, transportation is still difficult.

"It's hard to get sand or fill because all the trucks are tied up hauling debris," says Doral's Kuhn. "Right now (early December), I need about 180 loads of sand to get the Blue course ready for the (PGA Tour's) Doral Ryder Open. At this time last year, I had 40 loads a day rolling in. The best I can do now is six loads a day."

VanValkenburg had a unique problem. His three courses are irrigated with desalinated water from a reverse osmosis plant that requires as much electric power as his irrigation pumps.

"We were finally able to get a big generator, but it wasn't big enough to run both the R-O plant and the irrigation system, so first we made water and put it into the reservoir and then we switched the generator over to the pumps so we could flush the system and then get water on the greens. We were without water for about seven days."

Almost universally, superintendents said planning and taking care of their crews were the two keys to successful recovery.

"We had to get our people housed and fed," said

VanValkenburg, whose workers all lived in Homestead and lost everything. The hotel at Ocean Reef housed employees and their families while Card Sound found apartments for its homeless employees and underwrote the additional costs.

"I evacuated Key Largo to the mainland and rode out the storm in Homestead," recalls VanValkenburg, noting the irony of having "escaped" to ground zero. "The only good thing I can say about that experience is that I can totally relate to what my crew and their families went through."

Doral also housed its employees and their families, some in hotel rooms and others in hastily converted banquet rooms.

"The hotel was full at the time of the storm and as the guests left, relief workers took their place, but we found room for all the employees who needed shelter," Kuhn says.

Most superintendents marveled at the resilience of their crews.

"The 26 maintenance and pro shop employees suffered about \$2.2 million in damage to their homes and personal property, yet they all worked additional hours," wrote Carlos McKeon, superintendent of Palmetto GC.

"If ever a bunch of people had true grit, it was my crew," said Rick Hill, superintendent at Kendall GC.

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The pro shop at Falcon Fairways GC at Homestead Air Force Base, above, was left in terrible shape by Hurricane Andrew. Below, Miami Palmetto Golf Course shows how firm a golf ball was lodged in a palm tree. How it was put there, by a golfer or the hurricane, is unknown.

PHOTOS COURTESY OF
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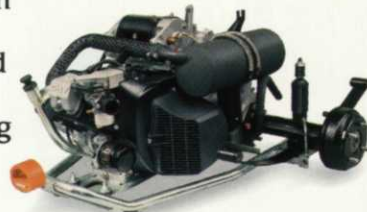
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*As reported by the Center for Golf Course Management, a subsidiary of the Golf Course Superintendents Association of America.

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Cleaning up after Andrew –

Faith, hope and most of all —time

BY SCOTT WAHLIN

‘In all, we had 500 trees down with another 250 requiring work.’

Statement issued by the National Weather Service at 2:30 p.m.: *Extremely dangerous Hurricane Andrew heading for southeast Florida... Andrew continues to strengthen with maximum sustained winds of 150 mph... all residents in the hurricane warning area must take immediate precautions to protect life and property... please listen to the people who are trying to save your lives. At the present time Hurricane Andrew has wind speeds and a minimum central pressure comparable to the Great 1926 and 1928 Hurricanes that hit Miami and Palm Beach killing hundreds...*

Living and working through Hurricane Andrew was far more traumatic than I had anticipated. Four days after the storm I realized that hard work alone was not going to heal the psychological wounds experienced by everyone in this community. Faith, hope, and — most of all — time, would be required.

At Don Shula’s Hotel and Golf Club in Miami Lakes, we have a checklist of what is to be done prior to hurricane season, what to do in the event of a hurricane warning and how cleanup work is to be prioritized. We meet annually to discuss and revise these checklists.

Expectations are made perfectly clear in this meeting. I require assistants and mechanics to help in preparation and cleanup. This includes putting up shutters at the hotels and store fronts.

My goal is to let everyone go early enough to prepare their own homes.

Andrew came so fast that this was not entirely possible. My wife and kids put up the shutters at my house. We started preparing the golf courses at 5 a.m. and finished putting up shutters at 9:45 p.m. with only short breaks.

It is important to inventory the chemicals, fuels and oils immediately before a major storm. If an environmental cleanup is necessary, the inventory

will help make sure you get it all. Photographs of equipment, tools and offices may be helpful for insurance claims.

My family and I stayed in the resort’s hotel the night of the storm. I may have considered staying in my house for a hurricane prior to this experience but not anymore.

I checked the golf courses at 8 a.m. after the storm passed. It would be impossible to capture the essence of what I saw with a photograph:

Eighty-foot trees were ripped from the ground with their roots intact. Stands of tall Australian pines were snapped off at ground level and fell into a weave extending up 60 feet. Ficus trees with bases 8 feet across were thrown on their sides. In all, we had 500 trees down with another 250 requiring work.

A lot of people in South Florida did not have shelter, so our first priority was to make the hotels accessible. By the second day after the storm, we had 50 people cleaning up, including four tree companies, our grounds crew and salaried executives of The Graham Companies.

We began on the golf courses by hand-raking all greens, tees and fairways. We cut and stacked all the wood in the roughs.

It is important to get a competent tree company on the job as soon as possible, but hauling the material away should be done by an excavating or engineering company experienced with moving massive quantities of brush in a short period of time. Fortunately, the Graham Companies Development Division has excellent relationships with several of these companies.

They used four tandem dump trucks, a backhoe/loader combination and a large loader with a standard bucket. Using the two loaders together to pack the material into the large loader, they could load a truck in a matter of minutes. They took 1,650 loads off the courses in 20 days.

We used a 40-ton crane, a smaller crane, and a backhoe to set up 24 large trees including large



Scott Wahlin is superintendent at Don Shula’s Hotel and Golf Club in Miami Lakes.



‘ We worked 10-hour days for 14 days straight. This was a mistake. ’

oaks, African mahoganies, black olives and ficus. We dug a hole at the base of each tree with the backhoe and lifted and guided it in place with the cranes. A small loader replaced the soil around the base of the tree and this soil was watered into place using a 1,000-gallon water truck. Once the tree was in place, it did not require additional bracing.

Of all the trees we stood up, we lost only one oak.

It is probably better to wait until the local government has time to set up free dump sites before moving any debris farther than the closest rough area. Paying for your dumping can run into tens of thousands of dollars. And free dump sites will be open before you can get a permit to burn .

You can chip the debris if you don't have too much. I looked at one large chipper that went for \$3,500 per day. My project would have taken weeks and I would have been left with a mountain of mulch.

I was shocked to find that this tree work was not covered by our insurance. One agent told me he would be surprised if anyone were insured for this.

Business interruption resulting from the cleanup is covered. Removing trees from insured property (i.e., fences) is covered, but cleaning up your course after a storm usually is not covered.

Several weeks after the hurricane I was visited by an extension agent who told me he did not understand why golf courses should not receive funds from the Agriculture Stabilization and Conservation Service. I contacted Miles Hewett of the ASCS in Washington who told me that golf courses were specifically excluded because they are not considered production agriculture.

Don't expect any breaks from your local government. Shortly after the storm, the Dade County Department of Environmental Resources Management sent me a certified letter requiring me to build a containment berm around our maintenance shop and apply a chemical-resistant coating to the shop floor

I was surprised at how much qualified cleanup help was available. There was adequate time and resources available to shop for price and get good companies. I developed a considerable list of qualified companies capable of doing the work.

Many companies including Stihl would only ship chain saws and generators to Miami. Several out-of-town tree companies asked to use our shipping address to get supplies they needed to help their customers in South Florida.

The morning after the hurricane, people came from everywhere to clean up streets and check on their neighbors. I found two guys working with our landscape crew who just came from a shelter and volunteered.

I think everyone experienced an initial sense of shock and rush of adrenaline. It was almost as if we got a lot of work done today and we would feel better. It did not work. The situation was unreal but it was our reality just the same and it would be for quite some time.

We worked 10-hour days for 14 days straight. This was a mistake. Our crew became quite fatigued which reduced efficiency and increased tension. It had been quite a long time since we had a good fight in the shop and we had one. In addition, we all had work to do at home so no one really got much rest when they left here.

I could probably write a book about my experiences with Hurricane Andrew. I could probably do the same regarding a horrible car accident I had on my way to Lake City Community College one January morning in 1982, or my father's unexpected death in my arms on the golf course on December 24, 1984.

I thank God for the events in my life that help me to gain wisdom and develop perseverance. I would say this experience was as traumatic as any I have been through, and I am eager to put it behind me.

Faith, hope and, most of all, time...

‘ I thank God for the events in my life that help me to gain wisdom and develop perseverance. ’



PHOTO COURTESY OF SCOTT WAHLIN

This fallen African mahogany was one of 10 such trees at Don Shula's Hotel and Golf Club that was uprighted and saved, according to Scott Wahlin, superintendent.

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Riding out a killer hurricane – **Never again!**

BY EDWARD RAMEY

I guess the first question would be, “Why would you want to sit through a hurricane?” Just crazy, if you ask me!

I have been in Florida since 1956 and have gone through all of the hurricanes over the years and did not believe Hurricane Andrew could be worse than any of the previous ones. It was!

The place to start would be about 11 p.m. on Sunday, Aug. 23. We had boarded up the house and were watching the TV updates on the hurricane when it was announced that Andrew would come in at the Turkey Point Power Plant area which was less than six miles from our home. At this point, we felt it was too late to get out, so my family (which consists of wife Jeanne, daughters Robin and Tara, and Robin’s boyfriend, Arnold) got caught in Homestead.

We decided to move the cars to a safer spot and went out and reinforced the house as best we could. Then we settled down for Andrew, who was about to change thousands of lives overnight.

Around 2:30 a.m. on Monday, we lost the power and we went to candles. Then at 3:15, we started to get the first high winds and the house began to shake. A few minutes later, windows blew out in the living room and the front bedroom. At 3:45 a.m., it became very calm and we went outside for a look.

Trees were down all around and trash was piled up all over. In a few minutes the wind and rain started up again so we retreated back inside. This is when all hell started to break loose!

Another window went so we moved into the hallway and sealed all the doors in that area. The entire house felt like it was going any minute, so we all went to the bathroom in the center of the house and locked ourselves in.

Sometime in the next hour, the master bedroom blew out and the roof went. We sat in that bathroom till daylight! The winds had quit, light rain was falling, and all was quiet so we ventured out of the bathroom for a look.

What we saw was beyond words!

Two to three inches of water was throughout

the house; the master bedroom was totally destroyed, all the plywood around the house was gone as well as all our neighbors. No tiles were left on any of the homes around us, and many of the roofs were completely blown off.

I climbed up on the roof for a better view of the area and all I could see was total devastation all around us. Power lines were on homes, cars were turned over, items that had been stored in people’s attics were thrown outside in the streets, small animals were wandering around, birds were so wet they could not fly; and all around, people were crying and screaming, many of them in shock.

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.

My wife went out Tuesday afternoon to check on her co-workers and found a telephone that worked so we were able to call out for help. I got my insurance agent at State Farm and then my brother in Pompano so we would have someplace to go. We siphoned enough gas from our cars to get one full tank so we could attempt to leave.

As we drove, we saw that Florida City was mostly gone, Leisure City was also destroyed and, when we got to the Turnpike, it was evident how far and wide Andrew had gone — all up the Turnpike to Kendall was a complete mess.

Thousands of people were around their homes trying to save what they could. I could not help but feel grateful that I had a way to get out and a place to go.

Since that day, I have returned four times to try and salvage some of the contents of our home. Each time the guilt was worse.

I guess that time heals all wounds but, how long is time? This will be a long-term healing process for everyone.

EDITOR’S NOTE: *Ed Ramey, former president of the South Florida GCSA, asked that the customary fee for articles by FGCSA members be donated to the association’s Hurricane Andrew Relief Fund.*

‘ Then we settled down for Andrew, who was about to change thousands of lives overnight ’