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 in 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 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
"Pictures and words don’t do justice..."

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

Greens were barely kept alive by hand watering

Central 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 seawater 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 landforms 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.