

LANDSCAPE MANAGEMENT

GOLF

After visit by Hugo, Charleston courses look like 'war zone'

CHARLESTON, S.C. — A week after Hurricane Hugo tore into the South Carolina coast, golf course superintendents expressed awe over its destructive power, and thanks that the death and damage toll was not what it could have been.

Up to 90 percent of the trees were gone on many South Carolina courses. Salt water intrusion, downed power and telephone lines, damaged or destroyed buildings and courses strewn with debris were the major problems faced by superintendents.

The courses that sustained the most damage are those within a 75-mile radius of Charleston Harbor, especially those on the neighboring islands to the north. The Sept. 21 storm slammed into South Carolina there and moved inland to Columbia, where it turned north toward Charlotte, N.C. It left behind a wide swath of destruction that may cost \$3 billion to repair.

"It looks like a war zone," said Tom Cannon, superintendent of Patriots Points Links, an 18-hole, 7,100-yard public course right on Charleston Harbor. "I was in the Vietnam War and I've seen a lot of devastation there. I've also had a couple of brushes with hur-

ricanes. But the damage that was done to the Charleston area was awesome and unbelievable. It's just absolutely devastating."

Damage to Patriots Point Links was typical of that endured by many other area courses. Ninety percent of the trees on the course were gone or damaged. The 16th hole, a par three that juts out into Shrimp Creek, was submerged, as were the fairways of the 17th and 18th holes. Also, half of the maintenance building was destroyed and the pump house was flooded after its roof was blown off. There was trash everywhere.

"People are scattered all over here and yonder," said Cannon of his employees. "I've got together a small base crew and everybody is pitching in. It's an extremely stressful situation because everyone has friends or relatives that were hit really hard. Morale is fairly high, though. Most people are over the shock and have grit their teeth and are ready to start digging out from this storm."

Tony Brown, superintendent of The Country Club of Charleston, said that his course may have been spared severe salt-water damage because of

the heavy rains before and after Hugo. "There has been ample opportunity for that salt water to run off or be flushed into the soil," said Brown. "It's kind of strange; a lot of areas submerged by salt water aren't showing a lot of damage."

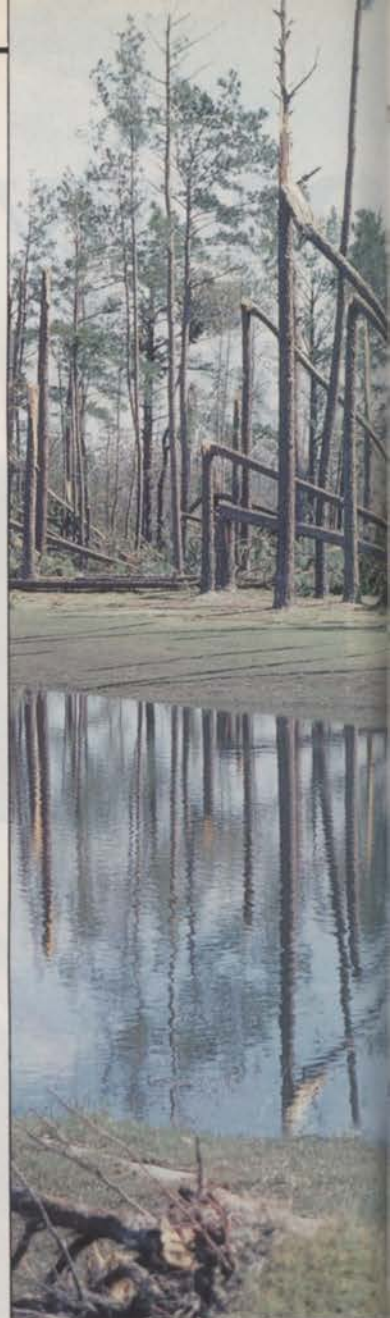
Brown and Cannon credit local media and Civil Defense officials for providing enough warning of the storm's direction and fury. "They probably saved several hundred thousand lives," said Brown.

Dr. Paul Alexander, a turf specialist at Horry-Georgetown Tech in Conway, S.C., urged area superintendents to run a salinity or soluble salts test as soon as possible. Bermudagrass registering more than 1,500 ppm or bentgrass more than 950 ppm need to be flushed thoroughly or the grass will die.

"The only thing you can do is pump those areas out and replenish them with fresh water. On tees and greens get out there with gypsum and make that application to tie up the salts in the soil," observed Alexander.

"The big thing that saved us was that the storm moved so rapidly we didn't get the anticipated rainfall of 10 to 15 inches."

Dr. Tim Bowyer of



Numerous evergreen trees like these at the Oaks Plantation Athletic & Country Club were sheared off at mid-trunk by the damaging winds of Hurricane Hugo.

Southern Turf Nurseries sent a letter to superintendents. "Salts may be leached from the profile through the application of gypsum," he wrote. "Regular ag gypsum can be applied at the rate of 1-2 tons per acre. This will provide little negative effect on soil pH while at the same time freeing sodium from the sodium profile and replacing it with calcium."

The president of Car-



olinas GCSA, Randy Allen of Dunes Golf & Beach Club in Myrtle Beach, said his area escaped serious damage. Still, his 35-acre irrigation lake showed salt intrusion of 9,500 ppm, and more than 300 trees were lost, many large oaks.

"When I rode around our golf course I just thought, 'Good Lord, I just can't believe all this happened,'" Allen added. "But when I look at the footage of Garden City and other places that were totally destroyed, I feel fortunate. I had never lived through a storm of that magnitude and hopefully I won't have to again."

—Will Perry □

An eyewitness to weather history

CHARLESTON, S.C. — "I completely underestimated that storm. I will never do it again. My wife and I decided to ride out the storm in our home. Like I said, I was in full combat in Vietnam and it was as bad or worse than that.

"We could hear the wind starting to scream, so we went into a hallway in the middle of the house. The wind just kept picking up and picking up until you couldn't even hear yourself talk. The wind started to buck the house...I felt several times that the wind was going to pick up my house and flip it.

"We laid there like that for an hour and a half. The power was off, all the radio stations were off; there were no lights or TV. We were afraid to move. I mean we were just laying there listening to the house shake.

"Then it was the eeriest thing. The eye came over the area and just as fast as those winds picked up they quit. They just stopped. There was no wind. It was hot, balmy and humid. I opened the front door and saw my neighbor up on his roof trying to patch a hole made when a tree fell on his house. About 20 minutes later, the winds started picking up again and it was like a freight train coming through the living room for the next hour-and-a-half to two hours.

"I woke up the next morning and I was still shaking. I opened my front door the next morning and I did not recognize the place where I lived.

"The damage is simply unbelievable. You cannot imagine it. It looks like someone dropped an atom bomb on the place.

"I don't think people took the storm seriously. They think we're down here crying about the wind damage. People don't realize the amount of devastation that has taken place. If it hadn't been for the evacuation, there would have been substantially more deaths."

—Tom Cannon
Patriots Point Links
Charleston, S.C. □

TECHNOLOGY

System reclaims sewage

BEVERLY HILLS, Calif. — Atlantic Northern Corp. has developed a water recycling system that reclaims sewage wastewater for agricultural and landscaping purposes otherwise endangered by the increasing water shortage.

Micropure will be put on the market nationwide by the end of the year, says company president Craig Rhoades. It will be offered to the private and public

sectors to conserve fresh water and cut water bills.

The unit uses an electrical charge to kill bacteria in the water. It then "globs" and filters out solid waste, which can be used as fertilizer. The household unit is about the size of a refrigerator and doesn't have high pump or electricity costs, Rhoades notes. "Maintenance isn't very high, either." Total processing costs run \$1.50 to \$1.75 per

ASSOCIATIONS

ALCA searches for new exec

FALLS CHURCH, Va. — The Associated Landscape Contractors of America (ALCA) is searching for a new executive director in the wake of Terry Peters' resignation.

ALCA has formed a Search Committee to conduct interviews with possible candidates. The person the committee seeks will have "strong interpersonal skills," says ALCA president Ron Kujawa. That person could come from the landscaping industry, from marketing and sales, or it could—like Peters—be a person currently directing another association.

"We're lucky to have a good, competent and professional staff in Washington," says Kujawa. "That gives us the luxury to take our time and get the person we really want. We don't have to rush."

During his four-year tenure with ALCA, Peters administered a growth in the association's insurance program from \$10 million to \$30 million; merged the Interior Plantscape Association into ALCA; and helped create the Green Industry Exposition.

Anyone interested in being considered as ALCA executive director should contact the organization at 405 N. Washington St., Falls Church, VA 22046; phone is (703) 241-4004. □

gallon.

The city of Monterey, Calif., has cut its water costs by 20 percent using the Micropure system, Rhoades notes.

"We're moving out of the 'disposable society' frame of mind," he says.

Urban and rural communities using septic tanks and overloaded municipal sewer systems could also irrigate their farmlands, golf

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