

SHELTER FROM THE

Having a formal response plan in place will ensure the safety of your staff and golfers when storms threaten.

BY STAN AWTRY

KEN MANGUM, CGCS, doesn't need to be told about the dangers of severe weather. The director of golf courses and grounds at the Atlanta Athletic Club was on the course earlier this year when lightning struck a tree 30 feet away.

"I know how dangerous weather can be," Mangum said.

"The weather can blow up on top of you before you know it," added Dustin Elwood, the senior superintendent of golf and grounds maintenance at the Jimmie Austin Golf Course in Norman, Okla. Elwood once sought shelter in the back room of a pro shop while a tornado powered through the facility, coming within 100 yards of his cramped sanctuary.

Have a management plan

Because of the unpredictability of severe weather and the danger it poses to a superintendent's staff, grounds and equipment, superintendents know how important it is to have a plan that guides their actions in the critical moments before and after thunderstorms. Planning takes on more significance when you consider that maintenance crews are often spread across hundreds of acres and operating heavy machinery when a storm threatens.

Severe weather can come on quickly, giving superintendents little time to react. "You'd better have a good idea of what you're going to do. You've got to have a game plan," Elwood said. "Especially when you've got 20 or 30 guys out there working."

Bob Dugan, president of Thor Guard, said planning is the key to avoiding the destruction storms can cause.

A hand is shown in the foreground, reaching out towards a bright lightning bolt that strikes a golf course in the background. The sky is dark and stormy, with multiple lightning bolts visible. The golf course is green and appears to be in the distance.

STORM

GOALS OF A STORM MANAGEMENT PLAN

While every severe weather management plan should be customized to account for variables such as the size of the facility and its maintenance staff, all plans should include the following steps, according to Thor Guard President Bob Dugan.

1 Define roles. The plan should define the roles of key personnel so they know their responsibilities in the event of severe weather.

2 Recognize the threat. While each department head at the course should be knowledgeable of severe weather's early warning signs, one person should have primary responsibility for recognizing the potential for weather-related problems. Today's most advanced lightning prediction systems monitor electrostatic potential to determine cloud-to-ground lightning probability. At a certain threat level, these systems issue audible and visible warnings through remote horns and strobe lights.

3 Communicate the threat. If a severe weather threat has been identified, those responsible for golf, grounds and maintenance, aquatics and special events should be notified. They should be given as much advance warning as possible in the event that personnel and equipment need to be moved quickly to a safe area.

4 Take action. After the potential for severe weather has been recognized and communicated, weather systems should continue to be monitored. If the facility is equipped with a lightning warning and prediction system, make sure that the superintendent and other department heads have access to the same information available in the pro shop. If the facility does not have such a system, managers should suspend activity at the first sign of lightning or the first sound of thunder and move people to a safe area indoors.

5 Review and update. A severe weather management plan should be reviewed and updated on a regular basis by senior managers and staff. Managers, staff and guests should understand that the facility observes strict guidelines regarding threatening weather conditions in the interest of personal safety. —SA

"A carefully designed and effectively executed plan can lessen the potential for injury as well as reduce possible damage to property and equipment," Dugan said. "In some cases, the plan will mean the difference between life and death." Dugan feels so strongly about the importance of planning, his firm developed a framework for courses to follow during storms (see sidebar.)

"A clear understanding of roles and responsibilities helps to eliminate what can be chaotic moments marked by indecision when severe weather threatens," Dugan said.

Clubs in the TPC network adhere to that belief, too. Mike Crawford, director of golf course maintenance at TPC Sugarloaf in Duluth, Ga., goes through a portion of his facility's plan weekly and covers the entire safety plan over the course of a season.

"Part of our safety training is a lightning safety lecture,"
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Seeking Shelter

Bob Dugan, president of Thor Guard, with Wayne Kappauf, superintendent at Island CC in Marco Island, Fla., standing near one of Thor Guard's lightning detection systems.



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Crawford said. "It's part of our profession. You don't need to be in a dangerous situation or put yourself in a dangerous situation. It's not good for you and it's not good for your family."

Know the signs

When it comes to recognizing the threat of storms, facilities should err on the side of caution, Mangum said. Atlanta Athletic Club ceases on-course work when lightning is spotted within five miles. "Common sense goes a long way," Mangum says.

Technology can go even further in warning of an approaching storm. Lightning prediction systems can issue a warning before lightning is detected.

Facilities that rely on the Weather Channel or other public services should remember that those computer modules may be at least five minutes behind the actual weather pattern.

Elwood brings in his work crews when the National Weather Service sounds an alarm or when lightning is spotted within six miles. Workers at TPC Sugarloaf are taught to immediately seek shelter when the lightning siren sounds.

"We try to make sure everybody understands what the sirens mean and what they're supposed to do when they hear them," Elwood said.

The sirens at TPC Sugarloaf are typically loud enough to be heard throughout the facility, even for those operating heavy equipment or wearing ear protection. Once the threat has been identified, key members of the crew are notified.

Taking action

After the threat is communicated, the staff takes action. If the threat appears highly dangerous, crews are called back to the maintenance facility. If the threat appears less imminent, crew members may stay on the course, at a safety shelter.

Once action is taken, the staff continues to monitor the situation and take the appropriate steps to ensure safety. Only when the "all-clear" signal is sounded are crews allowed to return to their positions.

Managers should not be tempted to return a crew to the course before the situation has been resolved, said Greg Quinn, chief meteorologist at Thor Guard.

"Most people think it's safe to go back on the course once a storm has cleared the area. But studies have shown that 60 percent of lightning victims are struck under blue skies after a storm has passed," Quinn said. He added that 30 percent of lightning victims are struck under blue skies before a storm arrives in their immediate area.

Crawford points out a problem at the vast majority of courses. "I think our crews take (the threat of severe weather) more seriously than the golfers do," he says.

Keeping golfers safe while keeping their courses full may be golf course operators' most delicate — and critical — balancing act, according to Quinn.

"Operators want to allow golfers to stay on the course and not interrupt their rounds, but there comes a time when weather conditions and safety concerns override everything else," he said.

Mangum ascribes to the same philosophy. He has crews mark damaged trees with red paint to remind members of the serious nature of severe weather.

A facility's severe weather plan should be reviewed and updated regularly, according to the experts at Thor Guard. "If you've had a severe weather event, take a look at your plan and see what worked and what needs to be improved," Dugan advised.

Golf facilities also should make sure workers are aware of the plan and don't deviate from its guidelines. While no one likes stopping in the middle of a project to take cover, Crawford knows it's wise. He once was on the course when a nearby tree was downed by a bolt of lightning.

He was in a truck, but he shudders to think what might have happened if he'd been in an open vehicle at the time. "A little inconvenience is worth the trouble," he says. ■

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— GREG QUINN, chief meteorologist at Thor Guard

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