



Crystal Springs Golf Course in California features wildlife corridors, some where deer roam. Photos: Crystal Springs Golf Course

# On The GREEN<sup>ER</sup> Side

By John Torsiello

**Environmental areas reduce labor, inputs and impact on surroundings**

Patrick Blum, golf course superintendent at Colonial Acres Golf Course in Glenmont, N.Y., enjoys sitting with his daughter Samantha and young son Zachary and looking out over environmental areas that exist in harmony with the maintained areas of the nine-hole layout he manages.

What they see are various bird species and an occasional fox or deer rambling about in the tall grass or brush. The scene brings a smile to a father's face.

"When my daughter was born in 1995, I determined that I was going to make a difference environmentally," says Blum, whose course has won a number of Audubon and Federal Environmental Protection Agency awards for its environmentally friendly turf maintenance. "I was involved in the







Great blue heron can enjoy about 45 unmaintained acres on the property of the Crystal Springs Golf Course. Golf course superintendent Tim Powers and his crew maintain about 75 of the 120 acres on property. Photo: Crystal Springs Golf Course

Stone Creek Golf Club (opposite page) in Oregon was routed around wetlands and features seven acres of environmental areas, some of which are used for wildlife corridors. Photo: Stone Creek Golf Club

landscape business before I came here in 1994, and it was the right thing to do to take the golf course toward harmony with its natural surroundings.”

About half of the 33 acres at Colonial Acres are considered environmental areas or buffer zones. Blum has reduced his use of synthetic pesticides and fertilizers from 3,500 pounds a year when he took over the superintendent position to 445 pounds a year. His ratio of bio and organic to synthetic pesticides and fertilizer use is about 3-to-1.

Blum established environmental areas throughout Colonial Acres, creating wildlife habitats, areas of prairie grasses and deciduous and conifer trees, as well as wildlife corridors through which animals can move from one end of the course to the other without crossing the maintained areas of the course. The results have been significant.

“We now have about 32 different bird species, where we once had maybe a dozen,” Blum

says. “And between animals and mammals, we have about 15 species.”

Colonial Acres is designated as a Certified Audubon Cooperative Sanctuary by Audubon International and is the first golf course in the country to meet the EPA’s strict environmental performance tracking standards for a business enterprise, Blum says.

Environmental buffer zones, or natural areas, provide environmental insurance between areas where golf courses are more intensively managed and areas of environmental concern, such as wetlands and ponds, says Ron Dodson, founder, president and c.e.o. of Audubon International.

“These areas can be ‘rough’ or native vegetation areas where little to no chemical products are used and that provide runoff water a chance to filter through vegetation areas,” Dodson says. “They give course management an additional and visible opportunity to protect the environment.”

Crystal Springs Golf Course in Burlingame, Calif., has been Audubon certified since 1998 and also has won numerous awards for its environmental protection measures from the Golf Course Superintendents Association of America. Creating environmental buffer zones is important at Crystal Springs because the course is located close to a 32,000-acre watershed.

“We have wildlife corridors, and we leave areas in front of the tee boxes natural up to about 70 yards out,” says golf course superintendent Tim Powers. “We have about 120 acres in all, and we probably maintain about 75. We don’t do anything around the edges of the course. We don’t use nitrates and mostly use bios or organics when we treat the maintained areas

of the course.”

Stone Creek Golf Club in Oregon City, Ore., also is at the forefront of the golf industry’s environmental movement.

“There was some mitigation of the property when the course was built in 2002, mainly due to infractions by previous owners,” says golf course superintendent Dave Phipps. “We routed the course around the wetlands and placed tee areas to prevent cuts and fills. We ended up with seven acres total of environmental areas or zones on the golf course. Some of that is for wildlife corridors.”

One of Phipps’ main challenges has been to control reed canary grass that’s extremely invasive in natural areas off Stone Creek’s fairways.

“It’s a lofty goal because it probably has been on the site for 50 years,” he says. “The best way to deal with it is excavate five feet and make the soil sterile, but we can’t afford the time. What we have done is establish a secondary story of live oaks, dogwoods and willows to rob the ground of nutrients. We are committed to maintaining the wetlands of the area beyond our permit. We don’t want a huge monoculture like reed canary grass that outcompetes everything else.”

Incorporating buffer zones into the design of a golf course helps superintendents meet demands by governmental agencies concerning the quality of water running off the course into fragile wetlands or drinking water supplies. Two-thirds of the property the Red Tail Golf Club in Devens, Mass., sits on is considered Zone Two by the Massachusetts Water Resources Authority.

“That means we’re within 500 feet of a recharge well for drinking water,” says golf course superintendent Drew Cummins. “One of the









A community college near Stone Creek Golf Club offered a class project that involved plantings in the wetlands next to the golf course. Photo: Stone Creek Golf Club

pluses we had when the course was designed was that we were able to stay away from the wetlands, stay on the high ridges and out of the low areas, and create buffer zones. We wanted to leave as small a footprint as possible on the environment.”

Many of the areas off the fairways remain natural, Cummins says.

“We have done other things such as not having too many paved surfaces like cart paths that allow rain water and runoff to drain into the ground and not travel great distances to fragile areas,” he says.

#### MANAGING THE AREAS

Careful planning of where to place environmental buffer zones can lead to a better overall management plan and reduce maintenance. And often, environmental zones are connected to how the course is designed in the first place.

“Often, steep banks are not only hard to maintain but dangerous to maintain,” Dodson says. “These areas are perfect for creating buffer zones.”

And having the environmental or natural ar-

reas doesn’t add any man hours, Powers says.

“We cut one area of high grass occasionally near our sixth hole, which has grass that grows high and blocks the view of the fairway from the tee,” he says.

At Stone Creek, there’s one par 3 that has a 140-yard carry over a natural area.

“We don’t do anything with it except occasionally go in and prune or remove small trees,” Phipps says. “There really isn’t any work to the environmental areas, but there’s work around them to make sure the natural areas don’t encroach on the fairways and green complexes.”

At the Lake of Isles Golf Club in North Stonington, Conn., there are 25 monitoring wells installed around the property so the maintenance staff can test and keep tabs on ground water flowing into the lakes and wetlands. The staff checks them three times a year.

“This will be our fifth grow-in season, and we have never had any test come back above the threshold level,” says Curtis Tyrrell, golf course superintendent of two courses at the club. “Obviously, we are doing something right.”

At Stone Creek, there are five test wells on

the property that are tested regularly.

“We have never had any groundwater contamination that would affect the nearby wetlands show up,” Phipps says.

#### IMPACT ON GOLFERS

Having environmental buffer zones often changes the character of a golf course and places demands on golfers, especially when the areas must be crossed near tee boxes or on approach shots to greens. Some buffer zones will change the look and play of the course, Dodson says.

“Some golfers might think an area has just been forgotten about, but the zones can actually add to the challenge of the game,” he says. “For these zones to work, communication up front is the key.”

Tyrell, whose two courses contain numerous environmental areas, agrees communication is vital to ensuring golfers accept the restrictions posed by natural areas.

“We get a lot of positive feedback about how natural our site is,” he says. “We have all the areas well marked, and the environmentally sensitive areas are marked with a stake that has a green top (the universal symbol for such an area). We have the areas noted on all our scorecards and yardage books. The starter incorporates the information about the environmental areas in his presentation on the first tee.”

But at Crystal Springs, not all golfer feedback is positive.

“We catch a little grief from members who lose golf balls, but most think the environmental areas only enhance the looks of the course,” Powers says.

At Colonial Acres, Blum devised a unique method to keep golfers out of environmental buffer zones.

“We have about two acres of naturalized area that come into play,” he says. “We don’t want golfers in there, so we have a local rule that allows them a drop with no penalty. If a golfer comes in and had a particularly rough day with lost balls, we’ll give him or her a sleeve. It seems to work. We go in there every five years to keep the woods out, and we find a ton of balls that



we sell as used.”

Modern courses usually are designed with large fairways that minimize a golfer’s need to swerve off into sensitive areas in search of lost golf balls.

“Our environmental areas are pretty much outside the playing surface,” Cummins says. “The fairways are large, and we let some of the rough near the fairway grow to stop balls from going into the environmental areas and wetlands off the fairways.”

**PROMOTING GREEN**

Establishing environmental areas on or near a golf course might make perfect sense to a golf course superintendent, but owners and golfers need to see the benefits as well. For example, making changes to protect the environment at

Colonial Acres took a bit of convincing.

“The youngest owner is in his 70s, so I had to convince them I was creating these areas not so much for them or even their children but for their grandchildren,” Blum says. “Once I came at them from that angle, it took all of 15 seconds for them to say, ‘Go ahead and create the natural areas.’”

Clubs with Audubon certification often use the designation as a marketing tool to members, daily-fee players and the community in general, which can help change the public’s perception of a golf course.

“We’ve got signs up in front of the pro shop about the awards we’ve won, and we have our environmental leadership awards displayed in the clubhouse,” Powers says.

“One of our guys went to speak to a local

garden club and the ladies loved listening to all that we have done here,” he adds. “They really didn’t have any idea of how environmentally conscious we are and how little impact we have on the area. They always had looked at our course as a negative.”

Colonial Acres has become sort of a superman of environmental causes, so there’s more pressure on Blum and his staff now, and they can’t slip up, he says.

“I accept the attention and monitoring because my goal is to leave the least amount of environmental impact as possible on the earth,” he says. **GCI**

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Two-thirds of the property Red Tail Golf Club sits on is considered Zone Two by the Massachusetts Water Resources Authority. That means the course is within 500 feet of a recharged well for drinking water. Photo: Red Tail Golf Club