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TURF CARE



"[I]n 2008 we had at least three inches of ice everywhere, on the greens, tees and fairways."

did very well. I did have two greens where water got under the covers and did some damage. But the other four were perfect and these were greens that I was having problems with in 2006, 2007 and 2008. I'm planning on using six more this year for a total of 12 covers."

Dave Van Auken, superintendent at Bass Lake Country Club, Upham, Wis., has employed green covers at a number of different facilities throughout his 24-year career as a superintendent in Wisconsin. "They were in use when I had my first experience with green covers and I became quite fond of the early green-up when the surrounding turf still held on to the dull brown of winter."

Each facility Van Auken has been at has had its own unique circumstances and subsequent benefits from the use of covers. "Overall, the benefits outweigh the negatives," he says. "I have not had problems with increased disease pressure or substantial set back of the turf once the covers were removed and frigid temperatures returned for a spell."

A nice plus for management? "The brilliant green color gets everyone excited about the upcoming season," Van Auken adds.

Roger Stewart, director of golf course maintenance operations at TPC Twin Cities in Blaine, Minn., has used covers primarily on the facility's practice tee to help divots

Options

There are a number of companies making and selling green covers, which vary in size from 10-by-50-feet to 80-by-110-feet but can also be custom made to fit any amount of turf. Prices range roughly from \$1,200 to \$2,600 for each cover depending, of course, on size, and may have to be replaced every six to seven years because of use and wear and tear. Add on another 10 to 15 percent of the cost of the covers for fastening and hardware/supplies, and more if the cover is dammed with sandbags and edges trenched in.



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TURF CARE

recover, protect seedlings and have greener turf in the spring. "We have also used small pieces to cover a few specific areas on greens where we have a mound or an area exposed to winds in an open winter," he says. "We do not cover greens on a regular basis primarily because we have very little *Poa annua* and we typically get enough snow cover to prevent winter desiccation."

Dr. Jim Kerns, a turfgrass pathologist in the department of plant pathology at North Carolina State University, advises that covers be put on after the last mowing of the year and prior to snowfall or before the weather gets extremely cold. As for when they should be removed, he says it depends on the season.

"The best practice would be to remove them when the potential for winter injury is limited," Kerns says. "However, there are circumstances when the covers may need to be removed early. In most cases I would suggest leaving them on until most of the winter moisture has dissipated."

The "trickiest time" for the application of covers comes in fall, shortly after they are put on, and in spring following snow melt. "Temperatures can soar under the covers when they are in direct sunlight, even in fall and spring sunlight," Koch says. "But if you remove the covers and the temperatures fall well below freezing that night you can significantly shock and injure the plants."

Ideally, covers should be installed as late as possible in the fall after foliar growth has ceased and removed as early as possible following snowmelt before growth has resumed to prevent the types of injury described above. "But variable fall and spring conditions, small crew sizes, and other extenuating circumstances make this more difficult than it seems," Koch says.

Wolverton quips that the best time to apply green covers is "before you let the crew go for the season!" He adds that when to cover is weather dependent.

"Some guys will put covers

on at a certain date and take them off at a specific time," Wolverton says. "I always check the extended forecasts and allow the plant to go through a couple hard freezes before we cover them just to make sure they were asleep." As for their removal, Wolverton adds that task is also highly dependent on the weather. "There were some warm days that we took the covers off and then needed to put them back on at night because of the extreme drop in temperatures," he says. "This seemed to happen more times than we wanted to do it in the spring. The goal was not to have too much growth right off the bat to expend carbohydrates but also to protect the turf from hard freezes."

Van Auken has "perfected" the application and removal process.

"Every cover gets unrolled from front to back right down the middle," he says. "The corners are located and six of us can unfurl the cover and start tacking it down in a minute or two. We also have a tremendous amount

of support from our membership and will have six or so volunteers helping out. I take a crew and tack the covers down and the volunteers come through and finish the job." He says he uses the same process, only in reverse come spring. Volunteers pull 80 to 90 percent of the staples and the maintenance crew pulls the remaining few, folds the covers to the center and rolls them toward the front. Each cover is tied up and tagged for use again in the fall.

The biggest drawback to green covers is the cost and hassle of purchasing and putting them out,' Koch says. Putting out covers in the late fall with a reduced crew is a significant task, and many superintendents are surprised by how much work they are.

"In addition, a study we completed last spring at the University of Wisconsin showed an increase in snow mold severity under an impermeable cover with the foam insulation but not a permeable cover (like an Evergreen cover)," he says. "The increased snow mold severity was manageable, however, when a strong fungicide program was used."

Covers can stimulate growth, which, when they are removed, could present a problem in the spring, Kern says.

"We also found that snow mold severity was most severe under impermeable covers." He also referenced the University of Wisconsin (where he was prior to taking the position at N.C. State) trial. "Although our snow mold treatment kept snow mold at bay, the non-treated controls that were covered with an impermeable cover had significantly more snow mold than any other cover treatment."

Bill Stein, superintendent at Minnocqua Country Club in Minnocqua, Wis., says that despite his desire for additional green covers, the time needed



"The brilliant green color gets everyone excited about the upcoming season," – Dave Van Auken.



Ideally, covers should be installed as late as possible in the fall after foliar growth has ceased.

“I would say half the time we don’t need covers we will have good snow cover or a nice month of March. But when you go until late April without hitting 50 degrees and night after night of a freeze thaw cycles, the [covers] are worth every penny.”

– Ken Smith, Eagle River Golf Course

to put them on in the right time-frame is a challenge with the number of covers he currently has, so more covers are almost out of the question.

“Covers also need to be replaced every few years also,” Stein says. “So there’s an additional cost to consider as well. I feel we are at the appropriate number of covers for our situation. We have minimized our risk and feel that we can get our covers on and off in an acceptable timeframe.”

While covers may be costly to purchase compared to seven temporary greens and angry membership, it’s a drop in the bucket, Smith says. He adds, “Basically, they are insurance because the weather here in the north woods has become so extreme over the last 10 years. I would say half the time we don’t need covers we will have good snow cover or a nice month of March. But when you

go until late April without hitting 50 degrees and night after night of a freeze thaw cycles, the Green Jackets are worth every penny. I would say there is a learning curve for each course but it’s the best chance to have quality greens in the spring.”

Steve Sarro, director of grounds at Pinehurst Country Club in Denver adds covers can be labor intensive and he may not need them every year. However, he likes to think of them as an insurance policy.

“In my current climate it is all about water management, even through the winter,” Sarro says. “When Mother Nature gets the best of you, you better have a great relationship with the pro and the general membership.” GCI

John Torsiellos is a Torrington, Conn.-based writer and frequent GCI contributor.

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Henry DeLozier is a principal in the Global Golf Advisors consultancy. DeLozier joined Global Golf Advisors in 2008 after nine years as the vice president of golf for Pulte Homes. He is a past president of the National Golf Course Owners Association's board of directors and serves on the PGA of America's Employers Advisory Council.

DEMYSTIFYING YOUR 2014 BUDGET

Five guidelines to make the task as easy as possible.

Golf facility leaders go into their annual budgeting process with a promising tailwind. The housing economy is recovering in most markets; credit is loosening. Unemployment is improving, and consumer confidence is building. After several years of expense reductions, but bolstered by a growing economy, how should club and course operators be approaching the 2014 budget cycle? Here are five guidelines.

EVALUATE VARIANCES IN THE CURRENT-YEAR BUDGET. How do this year's actual results compare to your budget? Variances of more than 5% should be evaluated. Maybe you were overly optimistic? Maybe your execution was off. Beware of line items that were not accounted for in the budget.

The question to ask: "How will we generate different and better results next year?"

REVIEW AND REFINE YOUR SCOPE OF OPERATIONS. The scope of operations describes all that the facility does, including which days and hours the club is operational and which services are offered and on what schedule. In most clubs the scope of operations remains untouched from year to year. But it should be evaluated at the launch of each budget cycle. Refining your scope of operations is one of the easiest and most effective ways to improve performance results.

The questions to ask: "What do our customers and members really want?" And "How can we operate more efficiently and eliminate waste from lightly used or inaccessible services or service times?"

TAKE A ZERO-BASED APPROACH.

Don't rely on a simple calculation of increased expenses. Start with a clean

budget sheet and plan each line item for a precise method of operation. Zero-based budgets are built brick-by-brick, with one assumption added to the previous. Any flawed assumption weakens the foundation. Understand and document each assumption in each line of the budget. To build a budget from scratch one must be organized and thorough. It takes time to ask the questions and to find the answers. While zero-based budgeting isn't easy, it's the sign of a real profes-

sional. The result is a budget that is more thorough and reliable than one produced by any other method. The question to ask: "Are my assumptions realistic and based on facts?"

INCREASE REVENUE EXPECTATIONS. Revenue growth has been stalled for several years. Many operators and managers continue to try outdated programs that did not work in the first place. Customers and club members seek value. Price increases in importance in their eyes when value is lacking. So before you budget for improved revenue, make sure you're maximizing value.

Revenue increases originate in the following ways:

- Sell the worst – least desirable – tee (or court) times first. The best inventory sells itself. Revenue growth comes when attention is given to selling what doesn't readily sell itself. This increase in utilization is like finding / new money.

- Bundle services to provide

- Make popular goods and services available to your members and cus-

tomers ahead of the demand curve. Can your members purchase anything through your retail outlets? Do you use virtual retailing options to expand access to new and popular SKUs?

The question to ask: "Am I thinking like my customers and members. Am I giving them what they want – recognition, respect and courtesy?"

greater value for members and customers and to support price increases. Think of the Full American Plan at a hotel. A guest pays for three meals per day whether consumed or not. A savvy hotel operator can show you that the breakage – unconsumed meals – holds at about 15%. Can you bundle programs that give your members greater value and improve operational margins at the club?

tomers ahead of the demand curve.

Can your members purchase anything through your retail outlets? Do you use virtual retailing options to expand access to new and popular SKUs?

The question to ask: "Am I thinking like my customers and members. Am I giving them what they want – recognition, respect and courtesy?"

ATTACK AND REDUCE OVERHEAD AND ADMINISTRATIVE COSTS. If you have not explored ClubSolutions through the Club Managers Association of America, you should. The cost of property and casualty insurance increases every year as new risks and claims experience are exposed. Most clubs accept increased insurance premiums as the cost of doing business. Don't give up so easily. Contact CMAA and learn how to reduce this overhead factor.

In addition, property taxes for your facility should be reviewed. One silver lining of the recessionary cycle is that property value in many markets

“After several years of expense reductions, but bolstered by a growing economy, how should club and course operators be approaching the 2014 budget cycle?”

(DELOZIER continues on page 64)



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Retain



ing water

Reid Golf Course constructed a giant wetland to manage a water-retention problem. In doing so, it created a giant filtration system that cleans up the stormwater before heading downstream.

The stormwater-retention capability of golf courses is something that golfers, the larger community and even course managers themselves often fail to appreciate. It's not the most sexy, captivating notion in golf, but a project now racing toward conclusion in Appleton, Wis., may just change all that, and the details should be required reading for anyone who maintains or manages a golf course, public or private.

Sound like an outrageous claim? Well, read on and let me know if you disagree. Something tells me you won't.

Reid Golf Course is a municipal facility in Appleton, lying entirely within the Lower Fox River Watershed. Surrounded by urban development, Reid GC for many years had already served a practical water management purpose in town: a concrete channel cut directly through a four-hole section of the course, gathering overflow from the course and also from the paved streets all around it, and ultimately delivering that water into the Lower Fox River, which flows into the Wisconsin River.

Two problems: First, not enough water was actually making it downstream efficiently, resulting in all sorts of localized flooding on course but mainly off course. Second, the water that did reach the Wisconsin River did not meet new state standards for water quality.

It took two years, but engineering giants

AECOM and my firm, Lohmann Golf Designs, solved this issue and upgrade the four affected holes — at basically no cost to the Appleton Parks and Recreation Department, which manages the golf course.

“Two things drove this project,” says Kelly Mattfield, who works with AECOM from the firm's Madison office. “One component was putting in ponds at the golf course and naturalizing the channel within the golf course. The other was removal of total suspended solids and phosphorus from the stormwater, for compliance with the MS4 permit, and also for compliance with TMDLs at the new state and federal levels.”

Allow me to translate: MS4 is a clever acronym for Municipal Separate Storm Sewer System. TMDL stands for “total maximum daily loads” of anything that “impairs” water quality, be they suspended solids, bacteria, phosphorus, or nitrogen.

Long story short, AECOM was hired by the city's stormwater division to sort this problem, and these engineers brought in Lohmann Golf Designs as consultants, because a) the golf course would clearly play a crucial role in this effort and would require significant renovation as part of the project, and b) we've handled a half dozen different stormwater retention projects on golf courses and thus have experience with the process.

Together, in work that finished this sum-



ALL IMAGES: LOHMANN GOLF DESIGN

WATER MANAGEMENT

Top left: Green erosion at Reid GC before the covers were used. Bottom left: Greens covers protecting against erosion from 3 inches of rain. Right: The south pond at Reid GC.



PHOTO VIEW FROM ABOVE

mer, we naturalized the channel passing through the course and hugely expanded Reid's retention capacity by creating four acres of new ponds – or for you engineering types, nearly 50 acre-feet of new storage, enough to handle a 100-year storm. The key word here is “naturalized.” By creating what is essentially a giant wetland, we also created a giant filtration system that cleans up that stormwater as it passes through the on-course system before heading downstream.

As indicated above, LGD has done a ton of large-scale, stormwater retention projects: at The Bridges at Poplar Creek in Hoffman Estates, Ill.; at Deer Path GC in Lake Forest, Ill.; at The Traditions at Chevy Chase GC in nearby Wheeling. In each case, we increased retention capability and improved water quality through introduction of

natural, wetlands-reliant filtration techniques. We also took the opportunity to greatly enhance course design as part of the process.

However, in each of the above instances, it was the course management entity that instigated and ultimately paid for the project.

At Reid GC in Appleton, the city's stormwater division was acting to comply with state statute, so it footed the bill. The city's Parks and Recreation Department operates on a completely separate budget. In essence, the golf course played a crucial role in enabling this communitarian effort – AND received significant design/aesthetic upgrades in the process, with no budgetary impact, save a few thousand for some grow-in materials. The stormwater division even factored in compensa-

tion for lost rounds and other pro shop revenues!

“Given the history of the course,” explained Pete Neuberger, project manager for the City of Appleton's Engineering Department, “it's unlikely that these types of monies would have been available for course enhancement if there weren't this stormwater project as a source of funding.”

Is there any reason this sort of situation could not take place on any course where the surrounding community is battling stormwater-retention and water-quality issues? Does it even matter whether that course is public or private? Not in my view, and Mattfield agrees.

“This is the first golf project I've personally done, and it was great working with Lohmann because they've got so much experience doing this sort of thing,”

she says. “Wisconsin is kind of ahead of surrounding states in terms of water quality aspects. But the EPA is pushing TMDLs across the country. Some states have more TMDLs than others, but these and other new EPA directives will definitely result in this sort of situation [in other communities].”

“If golf courses have the room, and they are in the right spot in the watershed, this makes sense. It's a win-win for everyone,” Mattfield adds

What did we actually do to the golf course, aside from creating water capacity? Quite a lot, actually. You can't drop four new acres of water hazard in a 4- or 5-hole stretch of golf course and not impact the layout significantly, visually and strategically.

“We couldn't simply treat this as a typical pond project,” says Neuberger. “We knew we had to