CASE STUDY 2

By Robert Diebold

Silver Stone saved BIG

A Las Vegas club finished a four-phase improvement plan in 2008 that's expected to save 68 million gallons of water per year.

During the last four years, Silver Stone Golf Club underwent a plan to improve the course's operating costs, make it more aesthetically pleasing and – most importantly considering its Las Vegas locale – conserve water.

Ninety acres of the 27-hole golf course were originally designed to be landscaped areas and were initially irrigated by overhead sprinklers. This design created two big problems as the course matured: the planted areas required a considerable amount of water and more chemicals and labor to control weeds. Though it's difficult to know how much water was designated to the landscaped areas, the course as a whole at that time was using about 1,195 acre-feet per year.

Given the water shortages in the Las Vegas valley and the water price hikes over the last few years (water costs are at $3.25 per 1,000 gallons), International Golf Maintenance knew a move to a drought-tolerant golf course was in order.

Four years ago IGM started the first phase of the transformation of the original 90 acres of out-of-play landscape. The first step was to remove all existing irrigation and unwanted plants, which included anything that wasn't drought tolerant, such as deer grass, mock orange, crepe myrtles and clover groundcover.

Silver Stone Golf Club converted landscaped areas to native plants and removed turf from out-of-play areas. Above: The driving range before (left) and after the changes.

The second phase included installing plant material. IGM chose to use native plants like Creosote, Brittle Bush and Yucca; these plants only require supplemental water until they're established. After they're growing on their own, they thrive off of the 4 inches of rain Silver Stone receives annually.

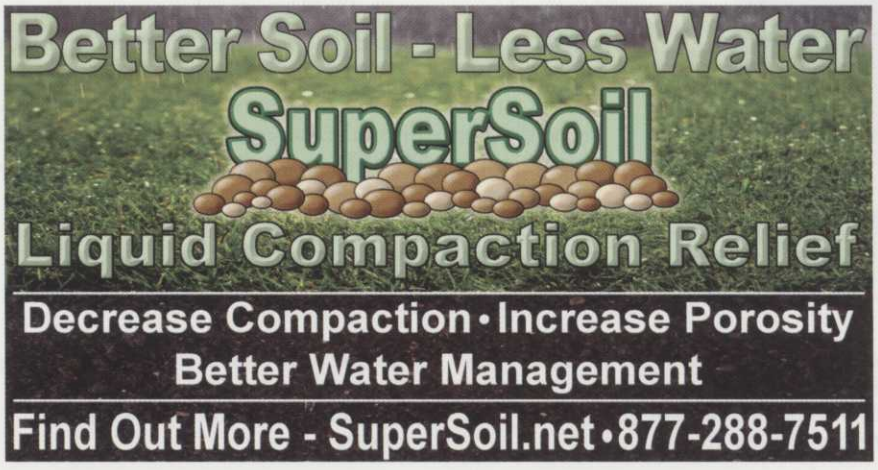
The third phase included spreading 18,000 tons of red decomposed granite (DG) around the groups of plantings. DG's purpose is two-fold; it creates an aesthetically pleasing desert look while providing dust control.

IGM just finished the fourth and final phase of the project, which involved removing more than 20 acres of turf (mainly around tees and from out-of-play areas). This move is expected to save nearly 4 million gallons of water per month during the hottest parts of the year, which equates to nearly $15,000 in water costs during a summer month. Removing turf, adding drought-tolerant plants and installing DG cost the facility about $900,000, most of which was reimbursed by the Southern Nevada Water Authority (SNWA). The total cost for all four phases was $2.5 million.

Silver Stone's stakeholders are happy with the results – one of them being named "Most Improved Course" by Vegas Golfer Magazine, which membership director Terry Clark expects to help member referrals, sales and guest play. IGM doesn't expect the changes to create cost efficiencies in pesticides or labor for the first few years or until weed populations have diminished. In the future, though, it expects maintenance costs to decrease 8 percent.

The biggest benefit, however, is the projected water savings. The facility is on track to use 985 acre-feet of water this year compared to 1,195 before the changes – a savings of more than 68 million gallons. GCI

Robert Diebold is the superintendent at Silver Stone Golf Club.



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