

A large, light-colored photograph of several purple lupine flower stalks with green leaves, arranged in a row across the top half of the page. The flowers are in various stages of bloom.

Texas PRIDE

by Rob Thomas

The City of Arlington employed comprehensive, sustainable resource-management principles when designing, building, and then managing Tierra Verde Golf Club.



Operating a golf course and remaining environmentally conscious can go hand in hand. In fact, it's a message city officials from Arlington, Texas, with assistance from Audubon International, have been consistently communicating to its community.

With three courses already under the city Parks and Recreation Department umbrella – the nine-hole Meadowbrook Park built in the 1920s, Lake Arlington built in the 60s and Chester W. Ditto built in the 80s – Arlington decided in the 90s that a fourth course would be an asset, but Mother Nature mustn't be harmed. The result... Tierra Verde Golf Club became the first golf course in Texas and the first municipal course in the world to be certified as an Audubon Signature Sanctuary.

The Audubon International Signature Program is an environmental education and conservation assistance program created to help landowners and managers follow comprehensive, sustainable resource management principles when designing, building, and then managing new developments.

The city brought on Audubon International and the Texas Parks and Wildlife Department to offer guidance on sustainable design, says superintendent Mark Claburn. The firm of Graham and Panks International – comprised of former PGA Tour player David Graham, designer Gary Panks and lead architect Gary Ste-

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– Mark Claburn, Tierra Verde Golf Club



phenson – teamed with the group and drew up plans to make that happen.

Audubon International Signature and Classic Program Director Nancy Richardson worked closely with city officials and course architects to ensure Tierra Verde was designed to maximize and preserve native areas – such as a wooded creek corridor and existing plum thicket – and minimize managed areas.

“I spent a day with officials from the City of Arlington before construction began, as well as with the golf course architect, Gary Stephenson, working on making sure that any drainage from the golf course was being filtered through buffers to clean up the runoff,” Richardson says. “This was a time-consuming process trying to protect water quality without impacting the artistic design of the course. In the end, we were able to ensure that all runoff was filtered and water quality on the property was protected and even improved over time.”

LOCATION, LOCATION, LOCATION. Though blessed with excellent features and terrain, this land almost wasn’t chosen to host the course, Claburn says. Because of its distance from the heart of the city and major freeways, the former ranch, which was used by many as a hunting ground, almost became an industrial park.

“There was a lot of pressure to put the site elsewhere, but ultimately the current site was the best location for the course with the topography and a majority of the land being undisturbed,” he says.

Adjacent to Tierra Verde is the Martin Luther King Sports Center. With baseball and softball fields, and a nature trail, this gives the entire complex almost 360 acres of combined green space.

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about 100 acres of the 260-acre plot, with wildlife corridors throughout the course.”

FINANCIAL BENEFITS. The environmental focus has had financial benefits for the course, and the golfing public, as well.

“The design has allowed us to remain competitive during this economic downturn,” Claburn says. “We haven’t had a significant price increase because we were designed to be efficient and sustainable.

“We save money on labor, fuel, fertilizer and water due to the design, [too]” he adds.

Richardson can understand why some may balk at consulting Audubon International during the design process, but encourages them to investigate by talking with program members about the financial benefits.

“Through the Signature Program, we work with the developers of land,” she says.

“Developers go through a long process in getting approvals for their project, so I believe in many cases they see Audubon International as another hand on their project wanting them to do more than they are already required to do by government agencies or the local community. But this program helps design a facility that will save in maintenance and operational costs down the road.

“I’m not sure why a golf course owner/operator would not want to save money on operational costs,” she adds. “Audubon International programs can definitely help them to do that.”

COMMUNITY. Golfers and wildlife aren’t the only ones benefitting from Tierra Verde. The community also enjoys the fruits of this labor.

“We tour about 200 people from the community a year through the facility and inform them about our practices and how they can



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The second hole at Tierra Verde Golf Club.

incorporate those into their location,” Claburn says. “Additionally, the golf division is an enterprise fund within the city. We don’t receive tax payer dollars. We are funded by the patrons – including paying for facility operations, land, design and construction. So we provide the city with a sustainable asset that provides entertainment, green space and improves land value surrounding it.”

Designing a course with increased attention on the environment can come at a price, however. While some funding was provided by the other courses – a portion of each greens fee goes toward paying for Tierra Verde – the majority was paid by borrowing through a bond program. Claburn says the course will retire its initial debt in 2017.

“Because of the extensive native areas on the course, construction costs were a little more... and construction took a few extra months due to the routing,” Claburn says. “There were some additional costs in building construction, as well.”

The return on investment is already being enjoyed, though.

“The geothermal heat and air, as well as other design features, saves about 80 percent on electricity over

a building with a similar footprint,” Claburn says of the clubhouse. “It utilizes the constant temperature deep in the soil to act as a free ‘heat pump/sump.’ There are 50 wells that go down 200 feet under the practice holes that take the 130-degree coolant water from the air conditioner system and runs it through HDPE pipes and circulates it through the underground wells like a radiator. This lowers our cost of air conditioning during those 100-degree summer days.

“The course design provided a more mature-looking course and the native areas really allow the golfer to remove themselves from the ‘Metroplex feel’ of many courses here,” he adds. “It feels like you are in the countryside.”

CHALLENGES. As expected, this process hasn’t been without stern tests to overcome.

“A large challenge we face is approximately 20 auto salvage yards that feed into our water shed,” Claburn says, which may explain why some preferred the industrial park to a golf course. “We added additional buffer areas and wetlands for the course to act as a biofilter for the increased pollution.”



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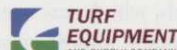


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Being limited on what chemicals are permitted can be difficult, as well. According to Claburn, they typically do not use any fungicides and only organic-based pesticides (Conserve, Spinosad). He does utilize herbicide, but limits the use through only chemicals specified in the natural resource management plan – changing the list as technology changes and products are improved.

In place of common chemicals, hydrogen peroxide proved to be enlightening. “We had a major dollar spot outbreak years ago and used fertilizer management, hydrogen peroxide and corn gluten meal to cure the disease,” Claburn says. “This is when I really became a believer in what we were doing.”

Citing generational differences, Claburn says the environmental efforts have been received with mixed reviews. Most of the older golfers could not care less that Tierra Verde is maintained primarily via eco-friendly organic

future environmental concerns and problems are built into the design,” Richardson says. “It is the time to work with the development team and come up with a product that protects water quality, conserves water, limits maintenance, restores, enhances and creates wildlife habitat on a large scale. It is also the time to lay out a management regime that will cut costs when compared to traditional facilities.”

Existing courses can still benefit from The Audubon International Cooperative Sanctuary Program (ACSP), however. There also is a new program that falls between the ACSP and The Signature Program, called The Classic, which is aimed at existing golf courses that are undergoing a renovation.

While there are things Claburn would change about the process – such as focusing more during construction on the removal of invasive, non-native plants like honeysuckle, privet and mimosa

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– Mark Claburn, Tierra Verde Golf Club

means versus harsh chemicals.

“We still do not have a lot of buy in by the majority of players, but we do draw some guests that appreciate what we do on the agronomic side,” he says. “But nearly all appreciate the sustainable design of the course because it is fun to play.”

THE RIGHT PROGRAM. Only new developments can register for the Signature Program. “It has a completely different approach, beginning with the design and making sure that solutions to

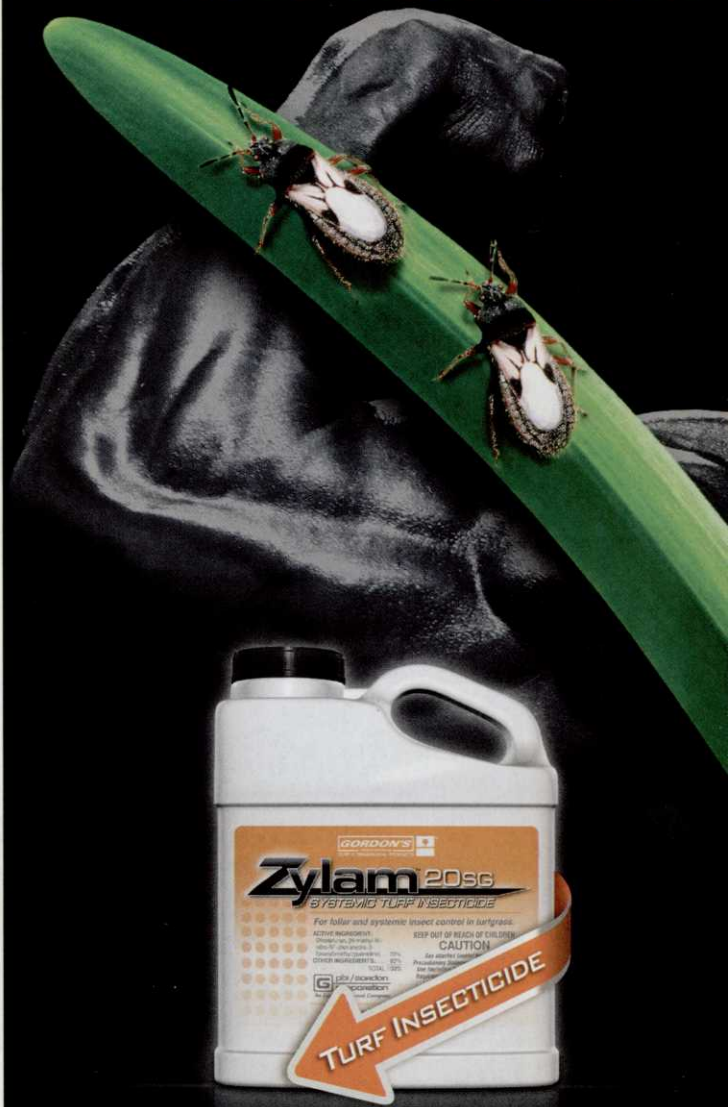
trees – having Audubon International working with his team isn’t one of them.

“It’s definitely worth it to provide a new way of thinking about doing things,” he says. “We believe you can’t throw anything away because there is no ‘away.’ We preserve wildlife areas while being an asset to the community. It’s a new way of thinking and rethinking the way you do things.” GCI

Rob Thomas is Cleveland-based writer and frequent GCI contributor.

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