



The wetland at Mirimichi was designed to protect Big Creek from runoff, but it has also become a wildlife hotspot with aesthetic value.

On Course *With Nature*

Moving Forward With 20 Years of Experience

New approaches advance environmental programs.

BY NANCY RICHARDSON

After nearly 20 years of working with new golf course projects through the Audubon International Signature Program, two things became clear to us. The first was that there were projects undergoing construction that had not learned about our program until the project was no longer eligible for the Signature Program. The second was that these same projects were also not eligible for the Audubon Cooperative Sanctuary Program (ACSP) for Golf Courses

because they were not completely built and open for business. About the same time that we were receiving inquiries from these new projects, we also heard from projects undergoing renovation that could benefit from design and construction information distributed through the Signature Program.

So, what happens to those projects that fall in between the two programs? It was a question that we were asked many times over the years until, in 2008, we launched a program that we

knew would help fill that programming void — the Audubon International Classic Program.

By definition, the Classic Program falls between the ACSP for existing land uses and the Signature Program for projects from their planning stage of development through construction and long-term management. The Classic Program takes into account that developed properties may be constrained by the prior development. Like the Signature Program, the Classic

Program takes an approach that is flexible and adaptable. Members must meet minimum program requirements that focus on Water Conservation, Water Quality Monitoring and Management, Integrated Pest Management, Wildlife Conservation and Habitat Enhancement, Energy Conservation and Efficiency, Waste Management, Outreach and Education, and any site-specific requirements. Additionally, members host several site visits, submit monthly progress reports, and implement a management plan. After meeting requirements equivalent to the Signature Program, certification is subject to passing a final on-site property audit.

MIRIMICHI WAS THE PERFECT FIT

One of the first projects to show interest in the new Classic Program was a golf course that was undergoing a complete renovation. The project was Big Creek Golf Course in Millington, Tennessee. When the rumor started that the owners would close Big Creek Golf Course and turn it into a subdivision, the news reached the family of singer-songwriter-performer Justin Timberlake. Justin's mother and stepfather lived near the golf course, and, in fact, Big Creek Golf Course was where Justin learned to play golf.

After deciding to purchase and upgrade the course, one of the first questions the family asked was, "How can we make this course as eco-friendly as possible?" Learning that the golf course was already under construction (and so was not eligible for the Signature Program), Big Creek Golf Course was offered membership in the Classic Program. We felt it would be a perfect fit.

Not only did Big Creek Golf Course get an extensive upgrade, it got a new name. It is now called Mirimichi, which is Cherokee for "place of happy retreat." Located just north of downtown Memphis, the public golf facility includes a one-mile stretch of the Big Creek, which runs along the north-western side of the project. Based on the ages of the trees lining the banks, Big Creek was likely altered in the



1940s when the Tennessee Valley Authority was formed. The forest types are typical of the region, with mixed mesophytic hardwood to the east and south and bottomland hardwoods to the north and west. So, protecting the quality of that creek was a priority for Audubon International.

The Classic Program concept at Mirimichi was to complete renovation of the existing golf course, build a nine-hole executive course, and build a new maintenance facility, employing Audubon International's Best Management Practices and innovative techniques. The following are environmental highlights of the renovation:

- Turfgrass acreage was reduced from more than 200 acres to less than 90 acres. This is an extraordinary change that has resulted in reduced operational costs and resource consumption.
- Special management zones were set up and observed to protect the water bodies from runoff. All golf course drainage now utilizes infiltration sumps to protect water during chemical applications and from runoff flowing from managed areas.
- The new maintenance facility was designed to meet Audubon International's requirements, including containment around the fuel loading area and storage tank, sealing the entire fueling area surface, and building a state-of-the-art equipment washing and recycling system.
- The design for chemical storage and the mix/load center consisted of a free-standing pesticide storage unit, sealed floors with containment curbing, explosion-proof lighting, and sprayer storage with a contained wash-down area.
- Aquatic plantings were installed in the newly created littoral shelves in new ponds. The littoral shelf provides for erosion control and wildlife habitat, and enhances water quality by filtering runoff.
- Hundreds of native trees and other plantings were added to the course to reduce water and fertilizer usage.
- Specimen and culturally significant trees, such as the American beech on the Little Mirimichi, were protected throughout the construction process.

- Filtering runoff from the maintenance facility compound by created swales, wetlands, and holding ponds, resulting in protection of the water quality of Big Creek and the creation of wildlife habitat.
- Creation and enhancement of habitat included 22.65 acres of lakes, 3,547 feet of streams, 7,380 linear feet of shoreline, 2.62 acres of created wetlands, and 37.5 acres of preserved meadow/grasslands, for a total of 62.77 acres preserved (20%) of the 303.88 total acreage and 168.41 acres of golf (total of 53%).



The golf course opened in July 2009 to positive reviews from the Memphis community, golf professionals, and golf organizations. Based on its environmental accomplishments, it also opened as the first Certified Classic Sanctuary in the United States.

THE SECOND UPGRADE

Although Mirimichi was received with great warmth and positive feedback, it also revealed several areas where the course needed improvement if it was going to follow through on the vision of being a world-class golf destination and host a major championship. Timberlake initially planned for additional improvements over a three-year period while staying open, but he made the decision to close down and again upgrade the course. “I felt the Memphis community deserves the best now and shouldn’t have to wait through three years of gradual improvements. So I challenged the Mirimichi team to make all of the changes by our first anniversary,” said Timberlake.

So, in January 2010, Mirimichi closed down again to get the course in “tournament shape” by July 2010.

Bergin Golf Designs and Sanders Golf Construction recontoured the greens and regrassed them with Champion bermudagrass. In addition to moving four greens and adding bunkers, the following was done:

- Water filtration and drainage enhancements were added to reduce consumption for irrigation.
- Course drainage was tied into the ponds, resulting in increased water recycling.
- Upgrades were made to the recirculating creek and waterfall system for better efficiency.

- Additional native trees were added.
- Additional wildflower meadows, aquatic plants, and other landscaping were added.
- Electric golf carts replaced the original fleet.
- The Callaway Performance Center was completed.

Although scheduled to reopen in July, a deluge in May caused the course to reopen on September 6, 2010. The downside from the major storm event was the delayed reopening to the public, but the upside was that the creek deposited sediment onto the fairways, adding much-needed organic materials to the soils. Talk about using available resources! How about having Mother Nature deliver them right to your doorstep?

Along with the course reopening, the multi-million-dollar Callaway Performance Center was unveiled at the celebration. This state-of-the-art center will offer golf lessons and customized club-fitting, using the same Callaway Performance Analysis system that is used by professional golfers. This center is one of only nine in the country. Along with the 18-hole putting course and Callaway Center, the amenities

include a nine-hole executive course (dubbed Little Mirimichi) and a large practice facility.

What really sets the stage is the created wetland to the right of the road as one enters through the Mirimichi gate. Designed to address rain-event runoff from the maintenance facility compound, the runoff is directed to a system of swales, wetlands, and holding ponds at Little Mirimichi. The goal with this system is to protect Big Creek from pollutants, but in doing so, outstanding wildlife habitat has been created as well. This whole ecosystem gives visitors and golfers a feel for what is to come. The entrance gate says, “We are first-class, top of the line.” The wetland says, “We can host major golf events and watch out for the health of the environment at the same time.”

NEXT STEPS

The upgrading was done for a greater reason than just making faster greens. Timberlake has set the goal of having Mirimichi host a major championship by 2020. Along with a great golf experience, it will be an opportunity to show a larger audience the environmental integrity maintained at this facility. So, it seems that Mirimichi was a perfect fit for The Classic Program. Membership in the Classic Program is increasing as other “in-between” projects find that this program fits them well. But Mirimichi’s continued function is probably best described by Justin himself. “Environmental sustainability is about more than what we do at our course,” Timberlake said. “It is about taking a leadership role and encouraging other golf courses and organizations of all kinds to emulate our commitment toward making a positive impact on the world we live in.”

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