

# Uncovering the Past to Find the Our Future

Bob Farren, Director

*In March 2010, Pinehurst embarked upon perhaps one of the boldest golf course restoration projects ever undertaken. After a great deal of research, it became apparent that the majority of the changes to the course design and strategy of Pinehurst No. 2 was attributed to the expansion of the irrigation system to support numerous acres of turf. The project resulted in a reducing the total acres of irrigated turf from 90 acres to 50. The total number of irrigation heads has been reduced from 1150 to 450. The “old school” center line irrigation in the fairways now determines the strategic lines of the course. The turf quality and resiliency is far more predictable the closer you are to the center of the otherwise expansive fairway lines.*

In March of 2010 Pinehurst embarked on perhaps the boldest golf course restoration project that has ever been undertaken. Pinehurst No.2, site of many national championships, has had a complete makeover to return the natural classical features that it was known for in decades gone by.

Pinehurst No.2 has always been held in the highest regard by many of the game’s greats. Golf legends like Jack Nicklaus and Arnold Palmer, have always showed great admiration for Course 2, what many consider to be Donald Ross’s greatest masterpiece. However, often in their praise, they would refer to the course. (and I quote) “the way it used to be.”

For more than a century Pinehurst No.2 has been a great test of championship, as recently as the 1999 and 2005 US Open Championships. However, many people in the golf industry, including Pinehurst owner Bob Dedman and President Don Padgett II, were concerned that changes to the course over the years had covered much of the character and Ross features that had earned its reputation in the golfing world.

It was during the 2008 U.S. Men’s Amateur at Pinehurst that thought was first given to restore the natural sandy wiregrass features of No.2. Mike Davis, then USGA Championship Director, had some specific ideas in mind that had a great deal of merit. As the conversations progressed from

there it became apparent that, with a full-scale restoration, we had an opportunity to make a significant statement for the golf industry. The design team of Bill Coore and Ben Crenshaw was selected to lead in the process.

Although Pinehurst at that time had been selected as the site for the 2014 US Opens, the restoration project was not initiated specifically because of the Opens. Rather, the project was initiated to protect and restore the resort’s most significant asset to ensure a successful business model for the future.

Pinehurst, along with the USGA, Coore and Crenshaw were fortunate to gain access to images and aerial photos of No. 2 taken on Christmas Day 1943. The photos provided a glimpse into the world of golf before the advent of modern irrigation and grassing schemes. Coore and Crenshaw provided a team of extremely talented individuals to implement the corrections they felt were important to return the natural character to No.2.

The significance of the changes will make a great stage for future championships but also leave a wide



mark in the arena of the Sustainability in golf course maintenance. Though not conceived or implemented specifically for environmental reasons, the project has served as a perfect platform to introduce the concept of sustainability to the golfing world.

There are three primary components of Sustainability many times referred to as the three P's. These stand for the People, Planet and Profits. The No.2 restoration has been successful in all aspects.

The restoration certainly impacted the People aspect in many ways. It is common for any course to make significant changes as it prepares for major Championships. No.2 has undergone many tee additions, fairway width adjustments, rough heights, etc. in preparation for U.S. Opens in 1999 and 2005. Those changes have had minor long-term impacts on the course experience for the day to day resort guest or member. However, the changes that been implemented since 2010 has impacted all that play the course.

Over forty acres of Bermuda turf has been removed. The fairways are nearly twice as wide as a typical US Open course with essentially no rough. The conventional bermuda rough has been removed and replaced with sandy areas and native vegetation. The irrigated area has been reduced from approximately 85 acres to 45 acres. The course once had over 1100 irrigation heads and now has only 450 with half of them covering the greens and tees.

Another area where we are conserving is through the elimination of overseeding in the winter months. With the restoration, we have discontinued the practice of overseeding in the winter. The elimination of the ryegrass has resulted in vastly improved conditioning levels and a significant reduction in water use. We continue to report the annual total water withdrawal to the State of North Carolina Division of Water Resources. Harold Brady, Water Supply Planning Branch reports that with 12.3% less rainfall in 2011 compared to 2010, Pinehurst No.2 used 26.1% less water than in same reporting period for 2010.

The restoration project has also attracted interest from other disciplines in the community of agriculture science. Dr. Danesha Seth Carley, Coordinator for the

CALS Sustainability Programs for North Carolina State University, has conducted an in depth study of the project the ecological aspects of the design concepts.

Dr. Carley writes the following:

*The move towards sustainability is creating new challenges for golf course management. Economic conditions, water shortages, and environmental awareness are leading to comprehensive changes in the golf course industry. Widespread efforts are being directed at reducing resource inputs, and the costs associated with them, and merging golf courses with their immediate, natural environment.*

Merging these managed turfgrass systems with the natural environment requires knowledge of the native ecology of the surrounding site and how to control it. All native species are not acceptable, even in out of play areas. And many locations have continual pressures from invasive species that pose ecological threats. For Pinehurst No. 2, encroaching vegetation has never been systematically cataloged, and little is known about appropriate integrated management strategies to selectively control unwanted weed species.

In this project, we are characterizing native vegetation, desirable adapted species, and invasive weeds on the Pinehurst No. 2 site as it transitions from the recent renovation. Using the 2012 research data, we are now beginning to explore appropriate weed control measures using integrated pest management (IPM) strategies and species-specific herbicides. This detailed ecological analysis can serve as a model for how golf course superintendents can successfully approach sustainability.

Pinehurst No. 2 continues to evolve as we allow it to mature to a more natural condition that offers a very unique challenge and appearance. The players have embraced it, the community of golf architects have generally praised it, the business model has been positive and the environmental benefit will only continue as the years pass. We at Pinehurst look forward to the world and world's greatest golfers seeing what we have uncovered on Pinehurst No.2 during the Championships in 2014.