



■ STEVE FRIEDLANDER AND STEVE THOMAS DISCUSS AN AGRONOMY ISSUE AT PELICAN HILL GOLF RESORT.

STEVE FRIEDLANDER

Pelican Hill's VP of golf has been instrumental in making the facility a leader in water conservation. **BY MICHAEL LEDNOVICH**

The Irvine Company's long-held conservation stance is serving it well as the Southland endures another lengthy battle with drought.

Long before the current four-year run of dry weather, the company's Pelican Hill Golf Resort invested in a water-capture and reuse system that has shot it to the head of the class in that regard.

"The Irvine Company began as an agricultural company that has been conserving resources for 150 years," said Steve Friedlander, vice president of golf at Pelican Hill in Newport Coast. "When we built the golf course, one of the objectives was to capture rainfall and runoff from the golf course to prevent pollutants from getting to the Pacific Ocean."

What began as an initiative to

protect the environment is paying double dividends for Pelican Hill, as water becomes the state's most precious commodity.

In December 2005, Pelican Hill shut down operations for two years for a redesign of the entire resort. Included in the project was the installation of five underground cisterns, several bio-retention basins and two water storage reservoirs that together can store more than 10 million gallons of water.

"We're like the ancient Egyptians. They designed intricate systems to capture every drop of rain and every possible drop of runoff in a very arid climate to keep their culture alive," Friedlander said. "All of our efforts save us about 50 million gallons of water a year."

Pelican Hill also uses recycled

water for irrigation from the Irvine Ranch Water District's Water Recycling Program. But nothing beats rain, and the course was able to capture 800,000 gallons of it when the area recorded seven-tenths of an inch of rain in early June.

"Rainwater is important because it's pure and it makes a better blend to irrigate our turf," said Steve Thomas, Pelican Hill's director of golf course maintenance.

While the water management system is the heart of Pelican Hill's conservation efforts, the resort is continually adapting new technologies and products to maximize water assets. The golf course uses weather-based irrigation controllers, efficient double-head rotating nozzles and has 6,000 irrigation heads that can be individually controlled from any location. Grounds crews are also armed with moisture-sensing monitors that give them readings from the turf of salt content, temperature and moisture levels.

"I can turn water on or off to fine tune irrigation of turf from my smartphone or my tablet even when I'm home," Thomas said. "It's an amazing system because as I drive around the course I can make on-the-fly adjustments based on the real-time turf watering needs."

Water evaporation loss is another problem being tackled at Pelican Hill through a device that spreads a monomolecular film on the surface of water used in the course's reservoirs.

"The product is environmentally safe and biodegradable," Friedlander said. "It's completely safe; you can swim in it. The product claims it can eliminate up to 50 percent of water lost due to evaporation."

The course also has removed 10 acres of turf and replaced it with coastal sage scrub vegetation that requires no irrigation, and advances in drought-resistant turfgrass has led Pelican Hill to replace its fine fescue, rye grass and poa annua turf to a warm season Bermuda grass where appropriate.

"We consulted with Tom Fazio, the course designer," Friedlander said, "on where we should replace the turf." **SG**

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