



## SUSTAINABILITY AT PELICAN HILL

Beyond its 36 spectacular holes designed by Tom Fazio, acclaimed Golf Club and Academy, Italian architecture, luxurious accommodations, world-class dining, and stunning natural seaside setting, The Resort at Pelican Hill® is one of the nation's leading green golf resorts.

Pelican Hill is one of the newest **Golf Magazine Eco-friendly Green Hall of Fame Award** winners, among just three U.S. properties selected in 2012. Pelican Hill has also been selected as one of **OC Metro's Green Team** honorees in the magazine's April 2012 issue. Since opening in late 2008, The Resort has also been named a **Golf Digest Green Star Environmental Award Finalist**.

### Land Stewardship

Pelican Hill owner-and-operator Irvine Company Resort Properties is steward of one of California's most beautiful stretches of coastal land, which encompass 504 acres, including 80 acres of protected habitat. The Irvine Ranch®, which includes Pelican Hill, has been under private ownership for nearly 150 years and is considered one of the largest and most successful master-planned urban environments in the United States. This land is a valuable, nonrenewable resource that must be managed with careful planning and long-range vision. In planning, building and operating the Resort, the Irvine Company Resort Properties continues the tradition of land stewardship, focusing on the long-term view.

### Water Conservation

Pelican Hill sets a new standard for green golf resorts with its environmentally friendly water management system. As part of The Resort and Golf Club's development, the two existing 18-hole ocean-view golf courses closed for two years, allowing renowned designer Tom Fazio to "re-perfect" his masterpieces, which originally opened in the early 1990s.

As part of this renovation, Pelican Hill went to unprecedented lengths to design and install a water-management system based on conservation and recycling, designed to protect the area's most important asset: the Pacific Ocean. Orange County Coastkeeper, an environmental organization consulted during the planning process, has deemed the water-management system as the most advanced of any seen on the California Coast, likely to become a model for the state.



Sophisticated irrigation and five underground rainwater runoff collection cisterns enable the use of only as much water as needed by monitoring how much water vegetation needs and how much the soil can hold. The cisterns, which collectively hold 1.2 million gallons of water, are emptied within 10 days following each storm in order to continue capturing rain runoff throughout the rainy season. The two irrigation reservoirs on the golf course collectively hold more than 5 million gallons of storm water above their normal water levels.



A full-time water quality manager monitors and maintains the system, which accomplishes three things: 1) conserves more than 50 million gallons of water per year; 2) reduces the amount of debris and contaminants in the water; 3) and captures and recycles runoff.

### **Water Diversion & Filtration**

Throughout Pelican Hill, catch basin inserts have been installed and maintained on all drains along cart paths to filter runoff water and capture organic debris before it enters the storm drain system. Inserts contain a blend of polymers, specifically aimed at removing oil derivatives and hydrocarbons from water.

Built into the Ocean South Course's hole 10 and hole 15, two bio-filtration/ bio-retention basins treat runoff from the adjacent Golf Maintenance Facility. The basins act as filtration devices, removing pollutants through a variety of physical and biological treatment processes.

Pelican Point Lift Station, located on the Ocean South Course's hole 12, takes dry season runoff flows from the golf course, a portion of Pacific Coast Highway and two adjacent neighborhoods, and pumps it to the Orange County Sanitation District's sewer system. This prevents waste water, debris and contaminants from entering the ocean at Crystal Cove State Park, which is designated as an Area of Special Biological Significance by the State Water Resources Control Board. Before the installation of this system, runoff reached the ocean year-round, some of it from natural groundwater sources, although a majority came from the adjacent neighborhoods.

### **Wildlife & Habitat**

Pelican Hill is home to numerous animal species, including coyotes, bobcats, birds of prey, Great Egret, Road runners, rattlesnakes, California gnatcatchers, various waterfowl, and even shorebirds like the Whimbrel and the Willet. Thriving in the area, red-tail hawks have successfully housed fledglings for several years in a row, along with multiple other raptor nests.

Supporting Pelican Hill's wildlife, The Resort installed 10 bluebird nesting boxes throughout the Ocean South golf course. Three of the nesting boxes housed two clutches of eggs, and a total of 19 bluebird chicks successfully fledged the nests. The golf course is also home to an ongoing bobcat study, featuring motion-sensor cameras. Cameras have captured at least five individual bobcats, led by a dominant male. Photos of a bobcat with two cubs have been captured on camera walking through a cart path tunnel.

Following the construction of The Resort, more than 16 acres of native Coastal Sage Scrub (CSS) habitat were installed on the golf course and adjacent areas to offset the impacts of development. Restoration areas that were converted from ornamental landscape beds and turf areas between golf holes are monitored by biologists who survey the sites annually. Nine coastal California gnatcatchers (listed as a *Species of Special Concern* in California and listed as *Threatened* by the U.S. Fish and Wildlife Service) have been observed in these restoration areas.

### **Energy Use and Conservation**

To conserve energy and reduce electricity usage during peak times, golf cart charging is rotated. The Resort completely shuts down certain areas of the property, such as unoccupied guest rooms and the central laundry facility, during low occupancy periods to reduce electricity and gas usage. LED lighting is installed throughout the property to reduce electricity usage, based on lower wattage of new lights, as well as reduce air conditioning demand due to the other lights generating much more heat per bulb.

### **Waste Disposal**

Since opening, The Resort established a recycling and cardboard bailing program by switching out its original trash hauler, which only provided one bin type for all food waste and recyclables. The new program features five recycle bins and eight trash bins across the 504-acre property. Additionally, The Resort increased recycling with a new compactor system at its event center, which hosts large group functions that produce a great volume of waste.

For green waste recycling, golf course landscape staff prune a majority of the pine trees on the courses and chip the material to be used as mulch in landscape beds throughout the courses.