

# Preserving Wetlands the Right Way

There's more to it than meets the eye.

BY JEAN MACKAY

Preserving wetlands sometimes involves more than just protecting the land that's wet. For wetlands to be most beneficial, they have to be connected to other habitats so that a variety of creatures can creep, slither, walk, and fly safely from wetlands to neighboring habitats.

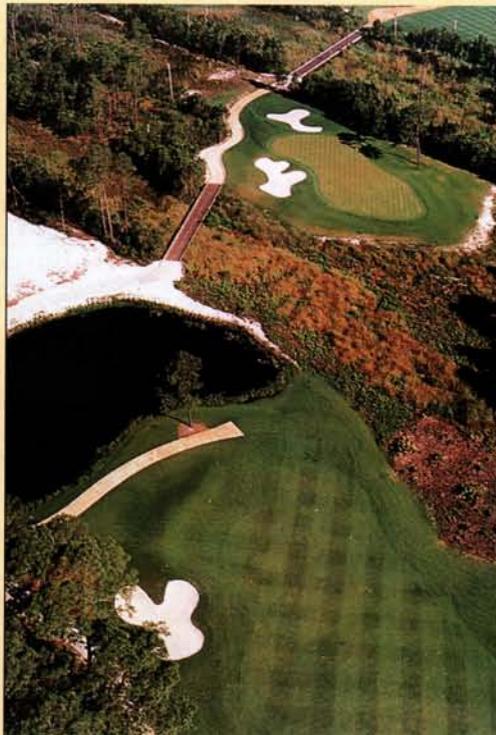
Wetlands not only are relied upon by wildlife that live in the water, but also are vital to species that use them to carry out part of their needs, such as feeding, drinking, or breeding. Thus, for most animals, wetlands and uplands must be connected for both habitats to serve the year-round needs of wildlife.

Yet government regulations rarely stipulate that these connections be preserved when permitting a new development. They merely require that the wetland itself be protected.

"That cuts off the ability of many creatures to get to the wetland," states Larry Woolbright, Ph.D., Director of Research for Audubon International. "For instance, many species of frogs and salamanders move between wooded uplands, where they spend much of the year, and wetlands, where they breed. Protecting only the wetland and developing all around it reduces or eliminates the ability of frogs and salamanders to reproduce — and that can spell the end to once-thriving populations."

## GOING BEYOND MINIMUM REQUIREMENTS

Architects and developers can create more environmentally sensitive designs by taking these upland-wetland con-



Lost Key Golf Club in Perdido Key, Florida, was designed to take advantage of the natural features of the property. Golf holes are nestled among wetlands, lakes, and upland areas to reduce fragmentation of vegetative communities. The course is a certified Silver Audubon Signature Sanctuary. MIKE KLEMME/GOLFOTO.COM

nections into account in new golf course construction. In some cases this involves going beyond what the government requires in regard to the "lines" it draws around wetlands. Golf course routing plans should leave upland woods next to wetlands or establish corridors of upland preserves that are linked to wetlands. In addition, golf course designers can delineate core habitat areas and small habitat patches throughout a property to minimize

habitat fragmentation and maximize the wildlife value of protected natural areas.

On-the-ground site surveys and careful analysis of design plans reveal whether the *primary functions* of a wetland — not just the basin with water in it — will be preserved. Wetland connections, proper drainage, and the final contours of the golf course landscape enable the wetland to continue absorbing and storing storm water, filtering nutrients, and recharging groundwater.

"It's critical to protect wetlands the right way, so that they continue to be an essential part of wildlife habitat and watershed integrity," says Woolbright. "When we work with Audubon Signature Program members, we visit the site and designate key wetlands and their upland habitats. Then we work with the architects and developers to make sure these areas are protected."

With thoughtful design considerations and a commitment to conservation, developers can integrate fully functioning wetlands into new golf courses in a way that is good for golf and good for the environment. "We know this can be done," concludes Woolbright. And he's right. Preserving wetlands as well as their functions benefits developers, golfers, wildlife, and the communities in which they live.

JEAN MACKAY is the director of educational services for Audubon International. To find out more about the Audubon Signature Program or the Audubon Cooperative Sanctuary Program for Golf Courses, visit [www.audubonintl.org](http://www.audubonintl.org) or call (518) 767-9051.