

Disney Wilderness Preserve Site Is Internationally Recognized Model for Success

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Pine trees and palmettos cover much of the terrain at the Disney Wilderness Preserve in Poinciana.

KISSIMMEE | It started as a new, untested approach to environmental permitting and restoration. Now, 20 years later, Disney Wilderness Preserve has become an internationally recognized model for success.

The preserve is an 11,500-acre expanse of pine forests, wetlands and scrub land that, like the neighboring Poinciana development, stretches across parts of Polk and Osceola counties.

It was established in an unprecedented agreement involving Walt Disney World, state environmental agencies and The Nature Conservancy in an attempt to come up with an alternative to an environmental permitting system that everyone acknowledged wasn't working.

It involved something called mitigation. If a developer had to fill wetlands on one part of its property, it had to create new wetlands on another part.

"At the time, mitigation was done on a piecemeal basis, and it was not successful," said Marc Ady, science supervisor at the South Florida Water Management District's Orlando office.

The idea was born when Walt Disney World was seeking development permits for an expansion and environmentalists were pushing state environmental officials to consider allowing mitigation to occur on a large tract elsewhere on a large enough scale to have an environmental benefit.

This had never been done before.

"There was a healthy skepticism on all sides," said Jim Yawn, senior project manager for Walt Disney Imagineering. "It made us all think about what we wanted, to make sure it was successful."

But Yawn said it was also clear to people in the private sector that the existing system wasn't working. He said qualified experts were sometimes hard to find; small created wetlands sometimes failed; and it was an uncertain process.

"This approach brought a lot of certainty," he said.

'A SPECTACULAR SUCCESS'

Charles Lee, director of advocacy for Audubon of Florida, was one of the environmental leaders pressing for the purchase of the land that eventually became Disney Wilderness Preserve.

He called the preserve "a spectacular success" so far but said he is concerned about how future development pressures in the area might diminish that success.

The selection of the property that was to become Disney Wilderness Preserve made sense in a way. Walker Ranch, the tract that became the preserve's core, lay on the other end of Reedy Creek from Walt Disney World.

However, things could have turned out differently.

Environmentalists had been lobbying for the site's preservation for years, an effort that escalated after the ranch's owner announced plans in 1988 for a 9,000-home, golf-oriented development.

But by the time Disney officials confirmed in 1991 that they were considering purchasing the ranch, the development plans had been withdrawn.

Audubon's Lee had written to Disney officials in 1990, telling them the fact that the property was in the same drainage basin as Disney and had been documented to contain significant natural resources made it a logical mitigation purchase.

OVERCOMING CHALLENGES

But translating an interesting concept into a successful project was challenging.

The Nature Conservancy, which the mitigation permit put in charge of owning and managing the property, had to come up with a management plan for the project, said Tricia Martin, TNC's Central Florida conservation director.

The property covered 8,500 acres at that time. Additional acreage has been added as a succession of others, ranging from Orlando International Airport to a grocery store somewhere, agreed to buy land adjacent to Disney's purchase.

Martin said even though conservancy staffers had plenty of experience in land management in general, they had to learn what would work here by trial and error.

She recalled one case where they reintroduced wet conditions into a bay head too quickly and unexpectedly killed wetland trees that had somehow adapted to dry conditions on the drained ranch land.

"We added water more gradually the next time," she said.

Another challenge was to restore improved pasture covered with Bahia grass back to native habitat.

That required repeated burning and some herbiciding, she said.

But over time they were able to restore 3,222 acres of wetlands and 300 acres of uplands to bring the property back to what it looked like in aerial photos from the 1940s, Martin said.

The management plan also relies heavily on prescribed fire to maintain the open pine savannah that dominates much of the preserve. A third of the property is burned annually.

Some of that pineland is where the pastures once dominated, she said, explaining the important part was gathering seeds from other sections of the property to recreate the meadow-like understory.

Planting the trees was the easy part.

'A LEARNING LABORATORY'

Meanwhile, the conservancy's success in restoring the land has attracted further restoration efforts, research projects and international visitors, Martin said.

In 2007, for instance, scientists began reintroducing red-cockaded woodpeckers, which are rare in most parts of Florida, to the pinewoods where there was some evidence they once lived.

"Our goal was to have 10 clusters; we have nine already," Martin said, adding they recently found one of the woodpeckers had excavated its own nest hole in a pine rather than relying on artificial cavities that were created for the birds initially.

In addition, Disney Wilderness Preserve's location at the head of a regional corridor connected to the Everglades has produced occasional sightings of Florida panthers and Florida black bears.

There are many common species as well. The preserve's wildlife list includes about 200 species of birds and 80 species of reptiles and amphibians.

"This project was always envisioned as a learning laboratory," Martin said.

She said there have been research projects on individual species, such as wood storks, big-eared bats and sandhill cranes, as well as studies on the value of entire ecosystems and the effects of management, such as prescribed fire.

This involves things called ecosystem services, the ability of healthy natural areas to remove air and water pollution, promote healthy populations of pollinators that are important to agriculture and to provide recreation for people.

"Disney Wilderness Preserve is a place where we can quantify that," she said, explaining the preserve also contains one of three research sites in the Southeast of the National Ecological Research Network. The network research site collects data on such things as soil moisture, carbon concentrations and microclimate within different habitats within the preserve.

Martin said scientists also stage "bioblitzes," which are intense searches to catalog all of the species of plants or animals in defined area to get an idea of species diversity and the health of the ecosystem.

Recently the preserve also hosted a delegation from Mongolia, which Martin said was interested in efforts to design to preserve around nature, something called development by design.

Part of that involved a tour of the small cluster of buildings at the visitors center that were designed in 1992, years before the concept of green building had taken hold.

Disney's Yawn said his staff was involved in the collaboration that was intended to make the building sustainable.

"We started thinking about the future," he said.

Martin said that furthered the preserve's mission of serving as a demonstration site.

"We serve as the gateway to the Everglades," she said.

PROBLEMS ON THE HORIZON

Despite the preserve's successes, it continues to face challenges.

Although Disney provided the preserve with a large enough endowment to take care of routine operations, Martin said they must continue private fundraising to pay for some of the research projects.

Meanwhile, although there is an extensive network of conservation land in the area, stretching south toward the Everglades, there are concerns about encroachment by surrounding development.

One of the major projects that concerns environmentalists is a plan to build a new highway just north of the preserve along Southport Road, one that state transportation officials envision as a new connection to Florida's Turnpike.

The road, which is still in the preliminary engineering stage, furthers a decades-old dream by area civic and business leaders of another "road to the east" that they say could improve the region's economy.

Audubon's Lee, who said he opposed the link when it was first proposed in 1972, said he's afraid the existence of a road that close to the preserve could force land managers to cut back on their use of prescribed fire because of concerns about smoke affecting visibility on the highway.

Preserve staffers share that concern.

Martin said conservancy staffers have developed models showing the areas affected by smoke from their burns to guide smoke-sensitive developments ranging from hospitals to roads away from those areas.

They hope that information has an effect, she said.

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