

Cocoa Beach road project captures pollutants

The recent face lift of Ocean Beach Boulevard in Cocoa Beach isn't just about aesthetic improvements; the revamped 1.3-mile coastal thoroughfare has been engineered to help improve water quality in the Indian River Lagoon.

Four lanes of traffic, crumbling asphalt and no leeway for bicyclists and pedestrians were the most obvious shortcomings of this coastal road, which runs parallel to State Road A1A. Less obvious was the road's impact on the lagoon, says Joanie Regan, stormwater manager for the city of Cocoa Beach.

"The road is located on a high, sandy dune," Regan says. "Storm water flowed downhill into the Banana River, which is part of the Indian River Lagoon."

An infusion of approximately \$1.8 million in grants from the U.S. Environmental Protection Agency, Florida Department of Environmental Protection and St. Johns River Water Management District's Indian River Lagoon Program enabled the city to redesign Ocean Beach Boulevard as a scenic route that now captures storm water and allows it to percolate into Florida's aquifer (groundwater) system.

The transformation is remarkable. Four lanes of traffic have been reduced to two; new sidewalks and bicycle lanes accommodate walkers and bicyclists who once dodged traffic at the road's shoulder; a lush new median brims with sabal palms, tall grasses and other native plant species.

"The plants also absorb the storm water and take in nutrients that once flowed into the Banana River," Regan says. "Using native landscaping instead of sod virtually eliminates the need for watering or mowing, saving the city money."

It's what lies beneath the project site that yields the greatest benefit to the area, however. Where underground stormwater pipes once ferried polluted storm water to the Banana River, specially designed swales and underground filtration systems now capture the water for recharge to the area's groundwater supply.

Regan says the project should significantly benefit the city because it serves a 103-acre stormwater basin, or about 4.5 percent of the city's urbanized area.

"We greened up the corridor and also reduced the volume of stormwater runoff," Regan says with pride. "Less storm water is flowing to the lagoon."

City officials are monitoring the effectiveness of the project to plan for similar projects in the future. It may also help the city meet total maximum daily load (TMDL) requirements established under the federal Clean Water Act. A TMDL is a calculation of the maximum amount of a pollutant that a water body can receive and still safely meet water quality standards.

Sabal palms and native plants gracing the new median on Ocean Beach Boulevard in Cocoa Beach capture storm water that once flowed to the Indian River Lagoon. The project reduced the number of travel lanes from four to two and added sidewalks and bicycle lanes.



Photos by Robert Day