



# FEMA

## Sarasota County Drainage Project Protects Celery Fields

**Sarasota, FL** – Farmers designed the fields to retain water and nourish the celery crops, but development to the south continually flooded as new building subdivisions increased runoff and decreased the ability of the ground to absorb water. The slight southern slope of the land and the loss of natural turf, due to development, caused flooding when heavy rains fell.

The situation became critical in 1992 when 22 inches of rain fell over three days, and the resulting runoff inundated more than 200 homes in the former celery fields.

Engineers analyzed the area’s flooding patterns and north-south water flows, and then developed a plan to control the water through a series of canals, ponds and mechanical flow devices. They created computer simulations with various flooding conditions and, upon review of the data, the design appeared to stop the damage without flooding other areas.

The county purchased the remaining former celery fields – more than 300 acres of property cut with ditches and framed by a series of canals. The design incorporated the canal infrastructure and added diversion gates, outflow pipes and controls.

After three years of construction on the first two phases of the project, the test came in November and December 1997 when two 100-year events (a level of flooding that has a 1% chance of occurring in any given year) deluged the flood-prone area. The design worked. Nearby homes were spared from flooding.

The county installed automated monitoring stations that allowed staff to watch the water levels remotely. Because of this remote operation, county officials can track the amount of water in the canals, measure accrued rainfall, graph results and make appropriate decisions about holding and releasing runoff from the facility and control flow into the system.

To pay for the project, Sarasota County put into place a funding plan often used by cities: the county’s water division localized assessments. This way only those residents who benefited from the project paid for it, instead of taxing all county residents.

The celery fields project contained a hidden bonus for the county. The grass marsh created on the site lured many birds to nest in its high grasses and weeds. People drove for miles to watch the migrations.

A partnership between the county and the Audubon Society developed to enhance the natural bird habitat. Plans for a third phase will increase walking trails, picnic areas, park amenities and natural landscaping. Visitors will find signs that identify birds and plantings amid the pines, salt myrtles, and wax myrtles.



Sarasota County,  
Florida



### Quick Facts

Sector:  
**Private**  
Cost:  
**\$26,795,388.00 (Estimated)**  
Primary Activity/Project:  
**Acquisition/Buyouts**  
Primary Funding:  
**Local Sources**