

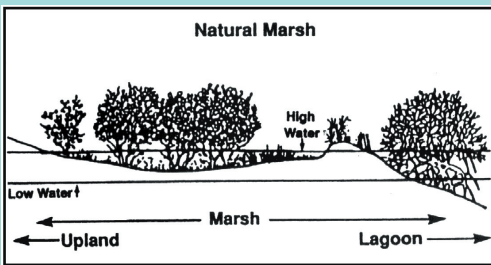


IMPOUNDED SALT MARSHES & MANGROVE SWAMPS

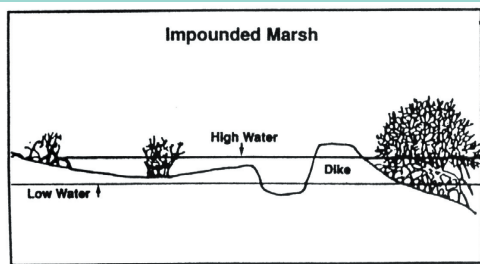
Since 1954 more than 40,000 acres of salt marshes and mangrove swamps have been diked off and flooded to prevent salt marsh mosquitoes from laying their eggs in the mud. Unfortunately, isolation of these marshes has adversely affected the overall health of the Indian River Lagoon. These marshes are the base of the food chain for the lagoon, provide nurseries and breeding grounds for many important species of fish and invertebrates, and keep the water of the Lagoon clean.

Only a few inches of water is required in the marshes to control mosquito breeding. Those water levels are only necessary during the summer months. It is bad management to keep these marshes impounded year-round.

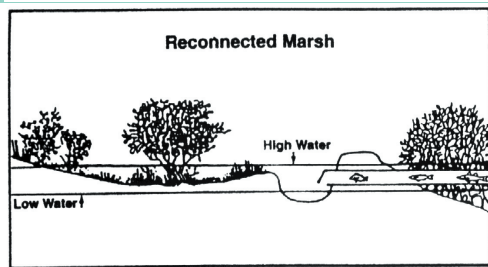
In early April, 1992 four 30.5 inch diameter culverts with flapgate risers were installed through the perimeter ditch along the 20 acre mangrove swamp impoundment on the FOS site. In October 1992 the flapgates were opened and the marsh was reconnected to the Lagoon. There has been a marked improvement in the quality of the mangrove marsh since October 1992. According to a 1989 University of Florida study, reconnecting the marshes to the Lagoon increases the potential value of these marshes by as much as \$9500 per acre per year.



This is how a natural marsh looks. Fish & other aquatic animals find food and shelter in the marsh. The marsh supplies detritus, the base of the food chain to the Lagoon. The marsh also filters the water of the Lagoon.



Dikes built to control mosquito breeding isolate the marsh from the Lagoon. This kills the vegetation in the marsh, reduces habitat, cuts the detritus supply, and stops the filtration of the water.



A culvert allows the tide to flow naturally in the marsh. Allowing the marsh to act as it should, supplying habitat, food, and filtration to the Lagoon. The more marshes reconnected to the Lagoon the healthier the Lagoon.

Culverts like this one allow for mosquito control during the Summer months when the gates are closed. During the winter the gate is opened allowing the marsh to act as the filter, base of the food chain, and nursery for the IRL.

