





*Ice houses were located at strategic points around Charlotte Harbor, near the favorite fishing grounds and in water deep enough for the run boats from the fish companies. The run boat brought a load of ice and exchanged it for a load of fish. Fishers were able to quickly bring their catches to the ice house as soon as they were netted. The run boats also brought groceries and other supplies to the fishers and left them at the ice house to be picked up.*

City Dock housed a variety of services, such as a fish market, Chinese laundry, machine shop and boatways. With the arrival of the railroad to Ft. Myers in 1904, rail spurs and packing houses on docks off Monroe Street accommodated produce shipped downriver (Figure 4D). A wooden bridge crossed the river in 1924, upstream from the modern bridges (Figure 4A); it was destroyed by fire in the 1940s.

The 1930s Works Progress Administration (WPA) Depression-era project built the \$350,000 Yacht Basin, transforming the historic working waterfront, with its long docks and packing houses, into a recreational boating hub featuring a palm tree-lined park and promenade. A 1940s aerial photograph (Figure 4E) shows the early development of this new waterfront. Bay Street was the closest street parallel to the riverfront. Packing houses at the foot of Monroe Street

still existed; a fire destroyed them in the early 1950s. The new Edison Bridge at Fowler Street is visible.

Wooded Lofton Island is in the upper left corner. J.F. Lofton dredged the earlier downtown boat basin (Figure 4F) and created a spoil bank (island), which he claimed by squatter's rights. A 1951 photo (Figure 4G) shows the home of J.L. Hunt on Lofton Island. (Lofton Island is now Pleasure Key.) Today's waterfront (Figure 4H), spanning the Caloosahatchee and Edison (southbound) bridges, includes Centennial Park and the Yacht Basin. More land was filled on the riverfront, and Edwards Drive was built to provide a scenic drive and access to the city's shoreline recreational facilities. The federally maintained Okeechobee Waterway flanks the waterfront and connects downtown Ft. Myers with the U.S. Eastern Seaboard and the Gulf of Mexico.

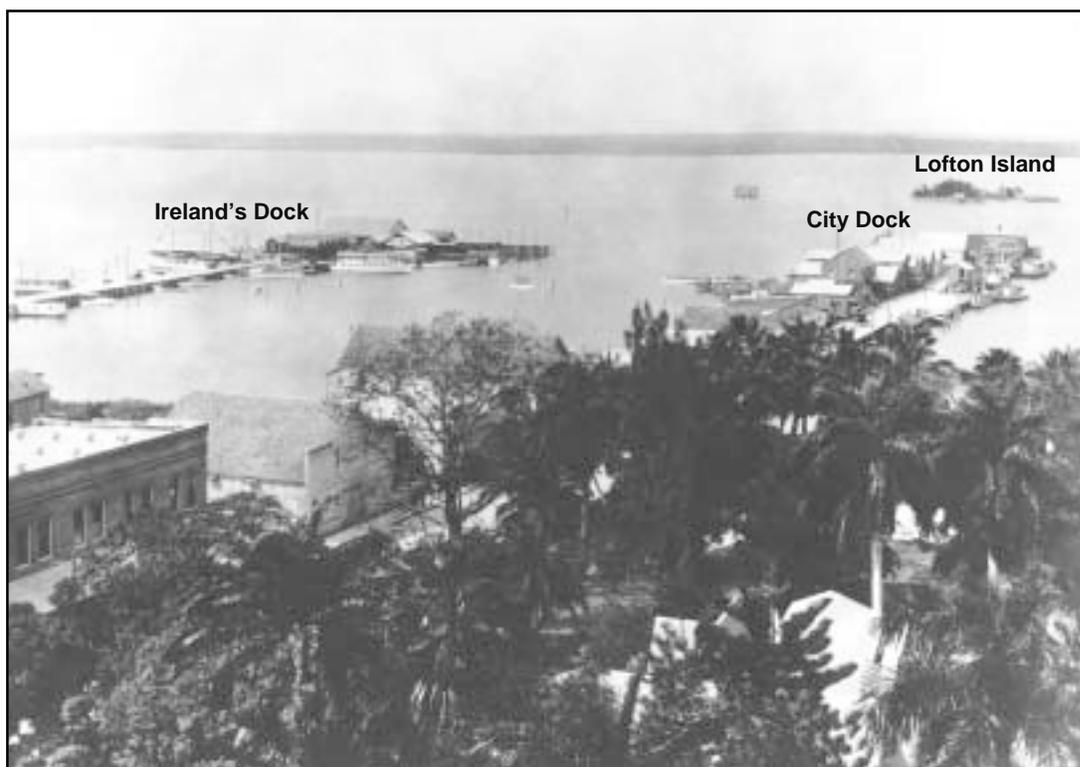


Figure 4C. Ireland's dock and city dock at Ft. Myers, 1914.

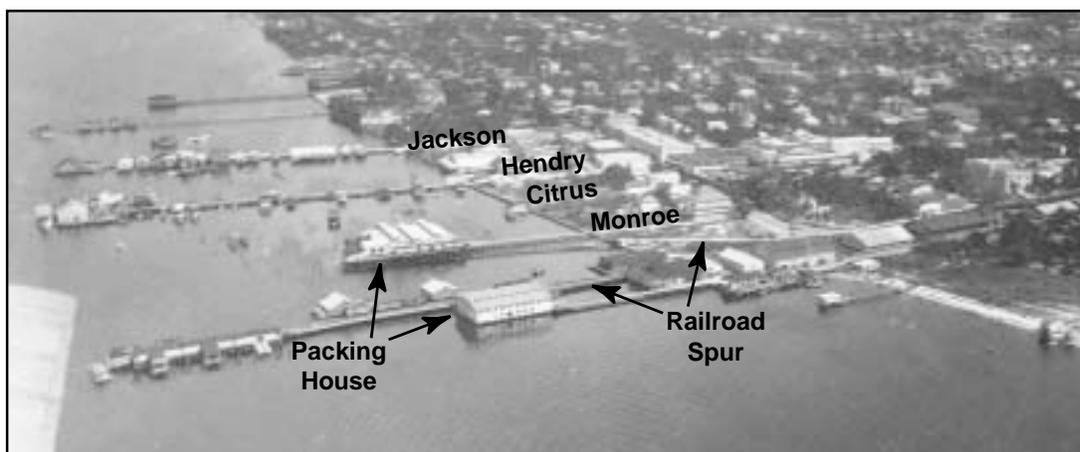


Figure 4D. Packing houses at Ft. Myers, 1929.



Figure 4E. Downtown Ft. Myers waterfront, 1940s.



Figure 4F. Downtown Ft. Myers waterfront, 1929.



Figure 4G. J. L. Hunt home on Lofton Island, 1951.



Figure 4H. Downtown Ft. Myers, 1998.

## Yacht Club Colony

Aerial photographs show 1940s (Figure 5A) and 1998 (Figure 5B) conditions. Daughtrey Creek, a tributary of the Caloosahatchee, is a meandering stream with numerous distributary (interlocking) channels, which forms a delta as it approaches the river. The surrounding area in the 1940s was scrub and brushland vegetation used for extensive cattle grazing, with no visible habitation. The light-colored intersecting lines running north-south and east-west in Figure 5A are square-mile "sections" of townships (divisions of the U.S. Land Office Survey) and probably represent cleared, unpaved tracks. Figure 5B shows

the multiple canal system, Yacht Club Colony, with some 200 residential parcels. The main entrance channel (a) has been dredged and linked to use Daughtrey Creek as the trunk artery (b) for a series of dredged finger canals (c). A second entrance channel (d) connects with a single finger canal (e) running north from the river. Most of the canals were dredged to 6 feet or less. However, those on either side of Cape Way (f) reach depths of 9 to 15 feet, likely to supply fill for building up the land surface to a higher elevation.

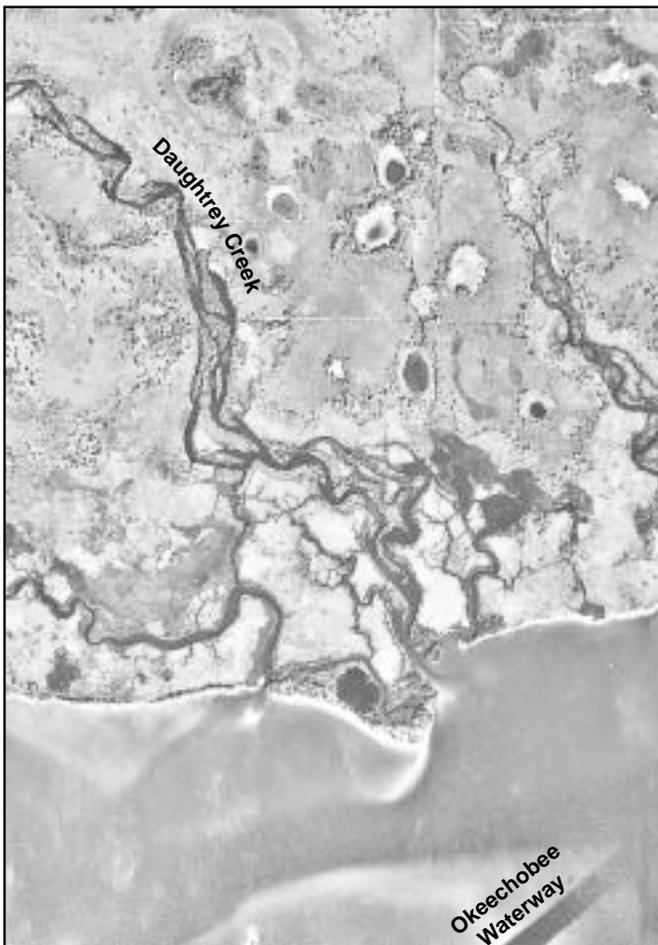


Figure 5A. Location of Yacht Club Colony, 1940s.

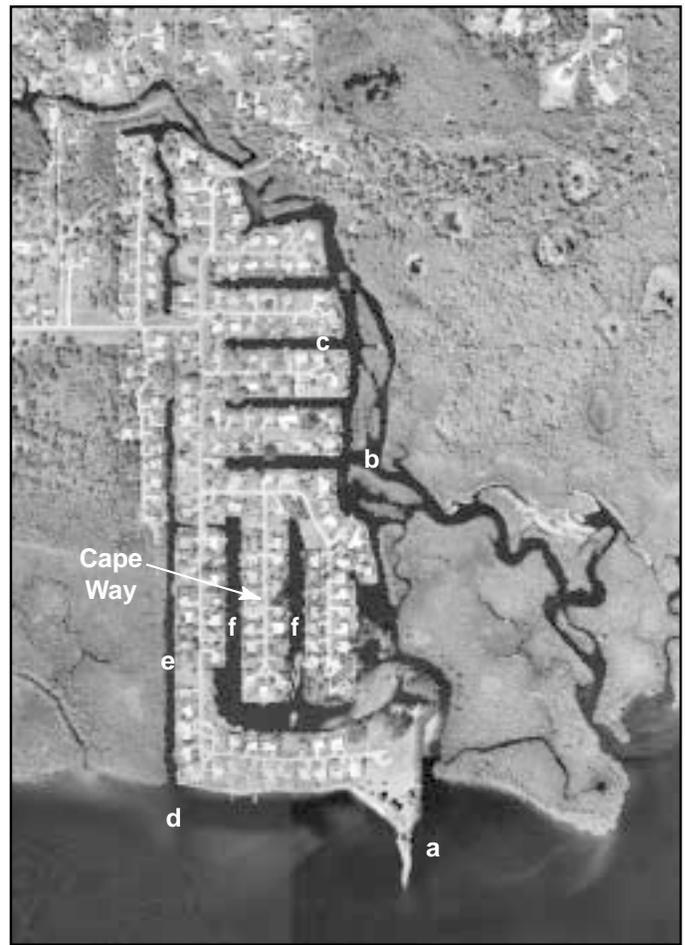


Figure 5B. Yacht Club Colony, 1998.



Figure 6A. San Carlos Island and Ft. Myers Beach, 1940s.

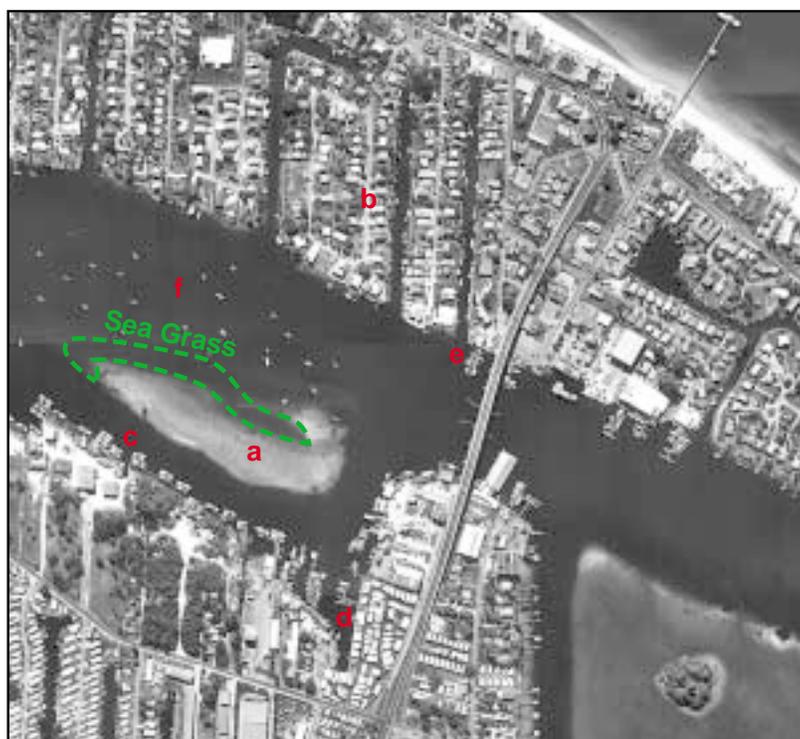


Figure 6B. Ft. Myers Beach, 1992.

### San Carlos Island and Ft. Myers Beach

The low, oblique aerial photograph taken in 1940 (Figure 6A) shows Matanzas Harbor before arrival of the large-scale shrimp trawler fleet operations at San Carlos Island. Note the net spreads drying on platforms built on the mud flat (a). Much of the traditional bay fishing of this era was for mullet, with fishers using small skiffs either poled or powered with outboard engines. Also, note the many vacant lots lining the finger canals on Ft. Myers Beach (b). The 1992 photograph shows some remarkable changes (Figure 6B). There are many docks, two or more boats rafted alongside each other, lining the San Carlos shoreline (c). This is the shrimp trawler fleet. There is an absence of any structures on the mud flat (a). Most of the Ft. Myers Beach finger canal lots have homes (b). A number of full-service marinas (d) and waterfront restaurants with transient docks (e) cater to recreational boaters. The harbor also serves as an anchorage (f) for transiting boaters, accommodating upwards of 100 boats during the winter season. (The town of Ft. Myers Beach is in the process of developing an anchorage management plan).



Figure 7A. Seagate Drive, Naples, 1958.

### The Moorings, Doctors Bay

Pre-development (1958) conditions included Doctors Pass, a small natural tidal inlet subject to migration and closure, which fed relatively open water back-bays fringed by mangroves and connected to Clam Bay to the north. Collier County, in 1958, constructed Seagate Drive (Figure 7A, a) and effectively severed tidal flow between Doctors and Clam Passes; culverts built in 1976 to reconnect the back-bays have done little to improve flushing. Beginning in 1959, Moorings Development Company of Canada began large-scale improvements, including removal of the mangrove fringe, deep dredging of the bay to create spoil for land fill, construction of seawalls along the entire perimeter of the bay, and straightening, jettying, and dredging Doctors Pass. Figure 7B shows the extent of this comprehensive development, which dramatically altered the natural system, in the 1970s.

The jetties (b) at Doctors Pass interrupt south-flowing longshore transport of beach sand, which contributes to deposition along the north jetty and creation of an off-shore shoal, a hazard to navigation. Maintenance dredging periodically alleviates this problem. The beach south of the jetties is starved of beach sand, which has led to the placement of a groin field (c) to catch and retain drifting sand.

Single-family residences (d) line the east side of Doctors Bay, while the west side accommodates multi-family residences and high-rise residential condominiums. The population fluctuates seasonally.



Figure 7B. Doctors Bay, Naples, 1970s.

## Port Royal, Aqualane Shores, and Royal Harbor, Naples

The 1930 hydrographic chart (Figure 8A) shows mangrove and swamp covering much of today's exclusive finger-canal residential areas that border Naples Bay. But, even then, a canal (red-line) had been dredged in Aqualane Shores. Though some development occurred just before World War II in the Port Royal subdivision, the 1950s signaled massive finger-islating in Aqualane Shores, Royal Harbor, and Port Royal (Figure 8B). Figure 8C

shows dredging operations during 1950 at Aqualane Shores. Note the suction dredge (a) transferring slurry by pipeline (b) to upland sites (c). The pre-1930 canal, shown in Figure 8A, is at (d). By 1969, all of the canals had been dredged and seawalled, and much of the building was well under way in this region of exclusive, single-family residences (Figure 8D).

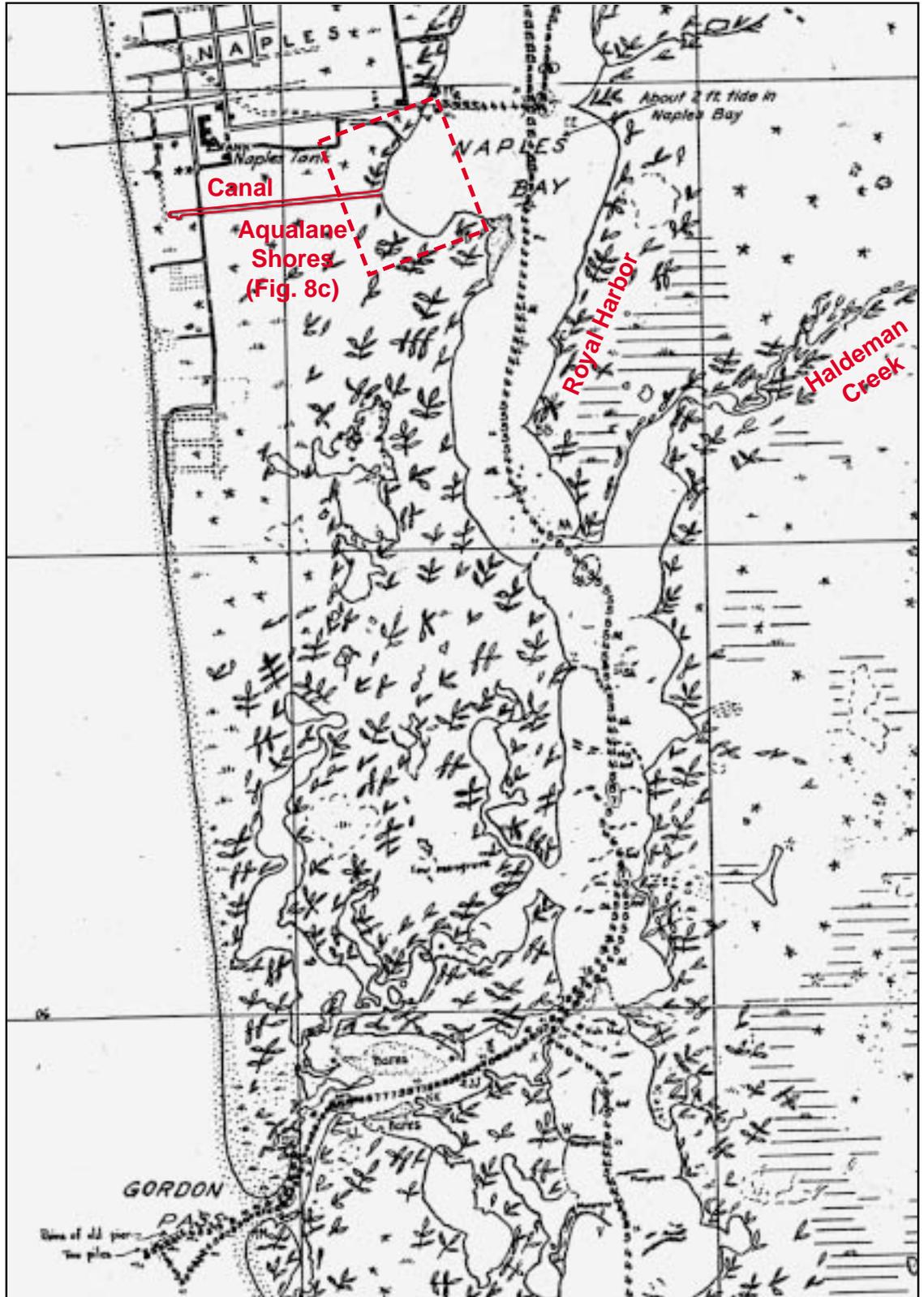


Figure 8A. Naples Bay, 1930, (from H-sheet 5067).



Figure 8B. Naples, 1959-60: Port Royal and Royal Harbor.

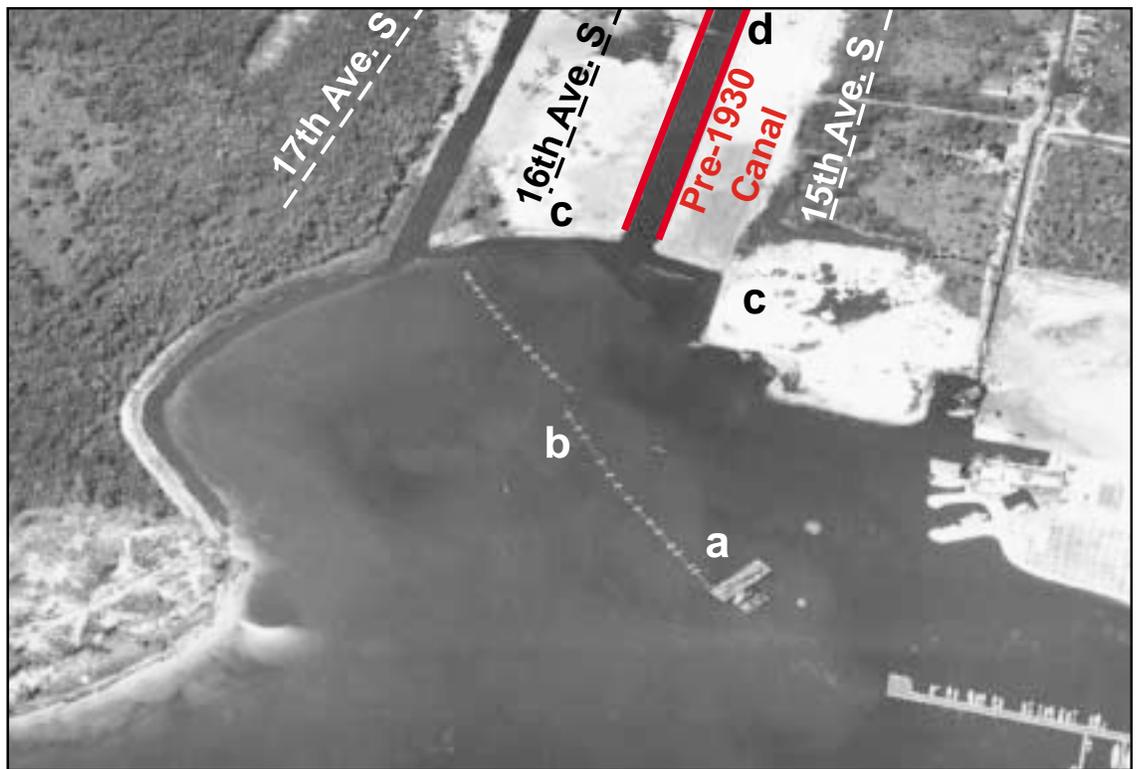


Figure 8C. Dredging at Aqualane Shores, 1950.



Figure 8D. Port Royal, Royal Harbor, and Aqualane Shores, 1969.

## Waterway at Shell Bay and John's Pass

The hydrographic chart of 1930 (Figure 9A) and a 1952 aerial photograph (Figure 9B) show both naturally occurring and human-induced changes in waterway conditions. John's Pass (a), a "wild," wave-dominated inlet, shows a north-trending recurved spit with barely open channel conditions on the 1930 chart. This inlet had a history of openings and closures. By 1952, the inlet had closed; it is believed to have opened briefly with the passage of Hurricane Donna in 1960, but closed shortly thereafter.

The Naples–Marco waterway (Figure 9A, b) was in a natural condition when the Coast Survey mapped the area in 1930. Numerous oyster bars impeded boat traffic. Local interests made some improvements in the 1930s, but the federal government assumed responsibility in 1940 and systematically dredged the waterway. The dredged material, or spoil (Figure 9B, c), was placed side-cast and parallel to the channel, on the fringing mangroves, creating a linear northwest-southeast trending series of conical hillocks, where upland exotic vegetation is now the predominant cover.

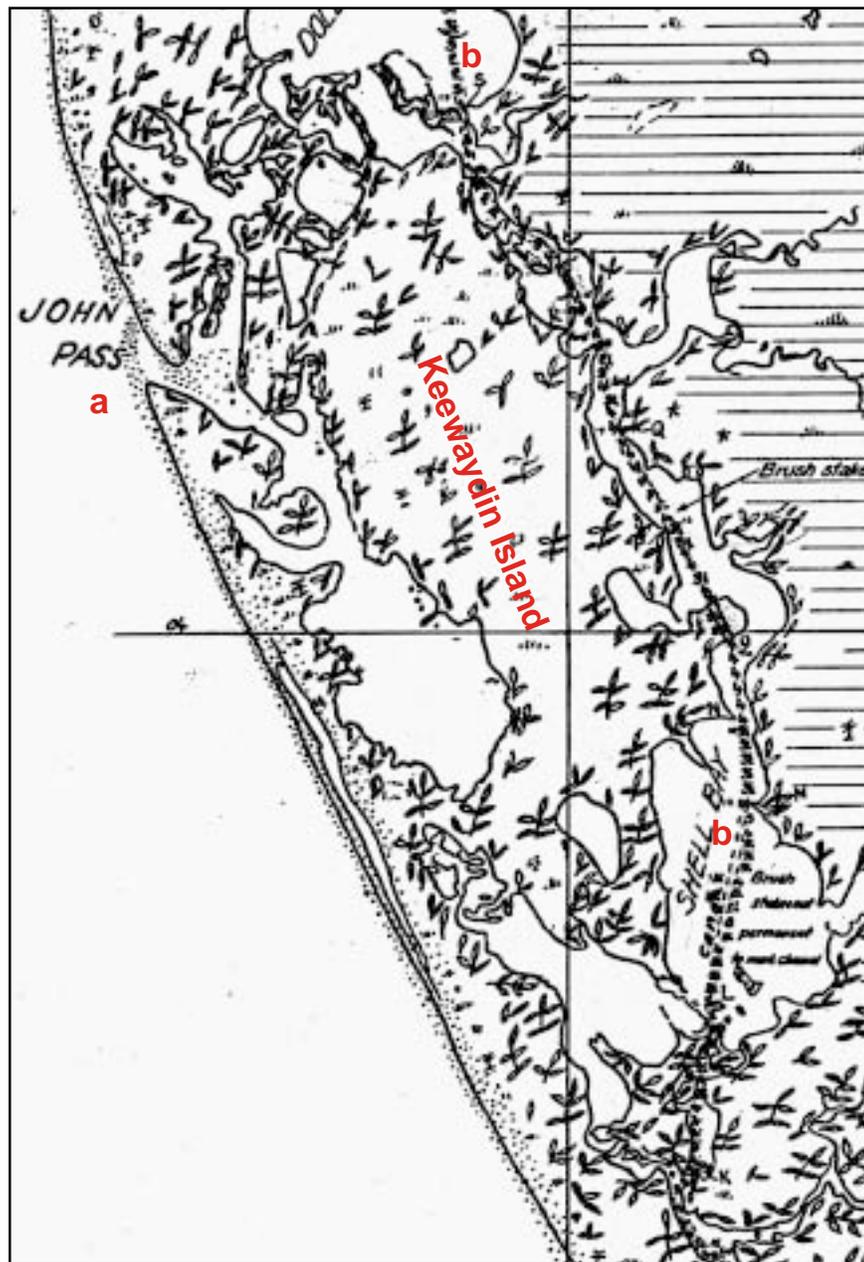


Figure 9A. Shell Bay and John's Pass, 1930, (from H-Sheet 5067).

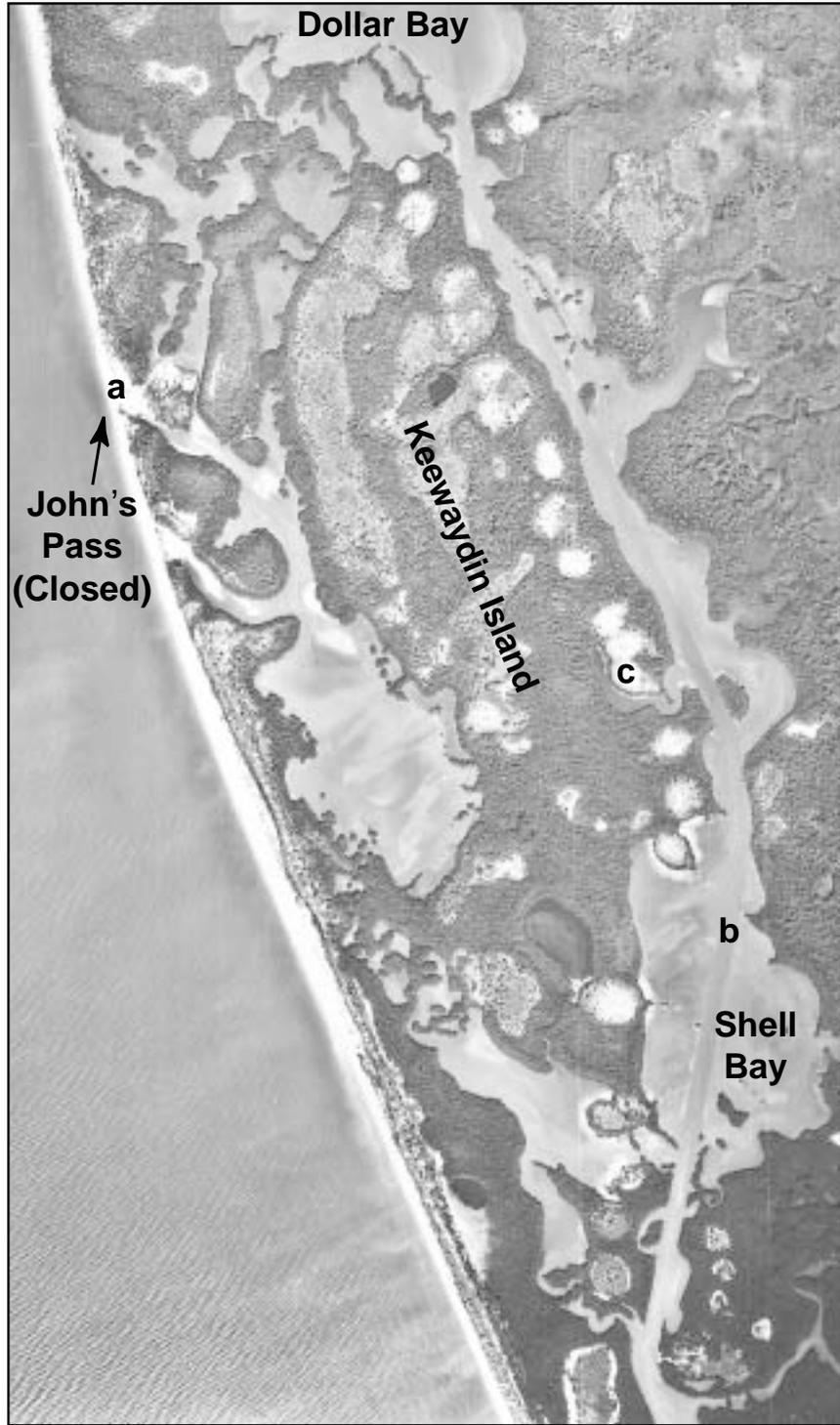


Figure 9B. Shell Bay and John's Pass, 1940s.



Figure 10A. Smokehouse Bay, 1952.

### Smokehouse Bay

Smokehouse Bay is a back-bay of Collier Bay, which is located west of Marco Village and connects with the mouth of the Marco River at Big Marco Pass. Smokehouse Bay in the pre-development period encompassed an extensive intertidal area, which was a prime breeding ground for mosquitoes (Figure 10A). An initial step in dredge-and-fill operations was to build a dike around the construction site and seal it off from tidal fluctuations, thus eliminating a critical larval breeding requirement. An aerial photograph taken in October 1976 (Figure 10B) shows dikes at (a). A suction dredge is operating at (b). Figure 10C shows the dredge (b) and pipeline (c), which was operating near the intersection of North Collier Boulevard and Tigertail Court. Slurry, dredged from Smokehouse Bay, is being deposited at upland sites (Figure 10B, d). The final dredge-and-fill construction stage included filling a land-bridge at Giralda Court (e) and removing the dike at the distal end of Tigertail Court (Figure 10D, f). Figure 10D shows waterway conditions upon completion of dredging and home construction.



Figure 10B. Smokehouse Bay, 1976.



Figure 10C. Dredging in Smokehouse Bay, 1976.



Figure 10D. Smokehouse Bay, 1992.

## Clam Bay

Prior to development, a tidal creek (Figure 11A, a), often not more than mid-thigh deep, connected Clam Bay to the Gulf of Mexico. Mangrove forest (b) surrounded Clam Bay. The natural drainage system to the Gulf, which periodically closed was augmented in the canal development process with two new water connections (Figure 11B), through Smokehouse Bay (c) and Collier Bay (d), both of which drain into the Marco River. The 1976 aerial photograph (Figure 11C) shows an in-

termediate stage in the development process, with Clam Bay sealed off from tidal exchange and seawalls (e) constructed around the perimeter. The upland behind the seawalls would be gradually filled in: Kendall south of Hernando is filled with recent spoil (white on photo), whereas Kendall north of Century still retains some of the mangrove fringe. In its final development stage (Figure 11D), Clam Bay is completely lined with sea walls and surrounded by single- and multi-family residences.



Figure 11A. Clam Bay, 1952.



Figure 11B. Clam Bay drainage, 1992.



Figure 11C. Clam Bay, 1976.



Figure 11D. Clam Bay, 1992.