

1949

**INTO THE
FIFTH
DECADE**



1989

Into the Fifth Decade

*The First Forty Years
of the South Florida
Water Management District
1949 - 1989*

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Foreword

Thomas E. Huser joined the Central and Southern Florida Flood Control District in 1961. He has served as Assistant Secretary to the District's Governing Board since 1970. Prior to that, he coordinated the agency's public information programs.

This document chronicles his personal recollections as the official record-keeper of Governing Board appointments and actions, with a special emphasis on the agency's formative years and the transitional period from flood control to water management.

CHAPTER 1 - BORN OF DISASTER

Despite the fact that the state of Florida was settled relatively early in our nation's history -- that settlement was sporadic and sparse until the mid 1900s. Then suddenly the state -- especially the southeast part of Florida -- was the focus of one population boom after another. The regional agency which is today responsible for the protection of South Florida's precious water resources came into existence in response to a series of natural disasters which seemed to follow on the heels of each wave of people coming into the state.

From 1913 to 1927, six major drainage canals and numerous minor canals totaling 440 miles, along with 47 miles of levees and 16 locks and dams, were constructed by the Everglades Drainage District (EDD). Close to \$18 million was spent to build this drainage system. Those funds were raised from the sale of bonds, and from a special drainage tax levied by a local drainage district. The construction program of the EDD began in the early 1900s and ended with the 1928 flood.

Seasonal subtropical fluctuations in the first half of the 20th century brought property damage and loss of lives from hurricanes and floods, and salt water intrusion problems in times of drought, to South Florida. The hurricanes of 1926 and 1928 killed nearly 3,000 persons, most of them people who lived or worked along Lake Okeechobee.

"Houses were folded together like a pack of cards. Some places you would see a foundation protrude without walls, here and there were houses upside down... The people were still hunting for bodies. As many as had been recovered in the early days, many hundreds of them, were sent to the coast... It soon became evident that they would have to burn the bodies as they were found, and they were piled in piles and covered with oil and burned."

Congresswoman Ruth Bryan Owen was reporting the scene she witnessed at Belle Glade, just 10 days after the 1928 hurricane. She could not give the Senate Committee an accurate count of the dead -- no one knew. The estimate was 2,400. Thousands more were homeless. Property damage was staggering. Martial law was declared in Palm Beach County. The old Dixie Court Hotel, on Dixie Highway in West Palm Beach, was just one of the buildings used to coordinate assistance to victims of this disaster.

Hurricane winds drove a wall of water more than 13 feet high out of the lake and over the top of a low muck dike built near the shoreline by farmers. What nature had created over centuries, and man had begun to put to his own use, was being taken back.

As a young boy C. A. (Mutt) Thomas of Lake Harbor, who would from 1965-78 serve on the Board of the Central and Southern Florida Flood Control District (FCD), lived through the 1928 hurricane. Much of his family did not. The storm claimed the lives of his mother and all of his other family members, except his father. Thomas floated ashore on a piece of wood after the storm.

He and his father stayed despite their personal tragedy, and like other Glades residents determined to hold onto their stake in the lands south of the lake, began to rebuild what Nature had washed away. South Bay Growers is the result of his and his father's efforts. But it was obvious that something more than drainage canals was needed to safeguard the lives and property of those determined to live and prosper in the rich mucklands around Lake Okeechobee.

President-elect Herbert Hoover visited Lake Okeechobee to see the destruction wrought by the 1928 hurricane. Hoover urged the United States Congress to act to prevent a repetition of that disaster. By the early 1930s, the Federal government had completed a protective levee around the south shore of Lake Okeechobee, where the tidal surge had climbed the lake's banks a few years before. The levee included an outlet to the Caloosahatchee River on the west, and the St. Lucie Canal on the east -- making it possible to navigate across the state. A levee was also constructed at the north end of the lake, to protect citizens in the Okeechobee City area.

The big dike, since named in honor of President Hoover, was dug as a navigation project, prior to formal U.S. involvement in flood control projects. The material excavated from the navigation channel was piled up on the south shore of the lake and used to form the dike designed to hold back potentially destructive tidal surges from the lake.

In 1931, on the heels of a land and development boom that deflated in this era of depressed expectations, the EDD defaulted on its bond payments. But the organization continued to exist until the bonds were finally paid off. Successive droughts from 1931-45 threatened the fresh water supplies vital to the continued growth of rapidly expanding coastal cities. And in the Glades, the land itself was being lost. Fires raged unchecked in the peatlike muck created on lands that had once been Everglades, actually lowering the level of the land.

1947 -- THE BIRTH OF REGIONAL FLOOD CONTROL

Yearly average rainfall in the region varies -- from about 58 inches at Miami to 51 inches at Kissimmee. In 1947, torrential rains flooded millions of acres in central and southern Florida. In the first 10 months of that year, 102.43 inches of rainfall was recorded in Dania, while Fort Lauderdale received 96.11 inches. The story was the same throughout South Florida in 1947.

Two hurricanes struck the Everglades and Lake Okeechobee after a long period of heavy rain had saturated the soils of the region, and extensive property damage from flooding and high winds occurred. The September 17-18 storm was accompanied by winds with sustained velocities of 65 miles per hour, with gusts reaching 99 mph. Winds with sustained velocities over 100 mph were reported closer to the center of the storm. That storm also caused some erosion at the base of the levees constructed about Lake Okeechobee by the Corps of Engineers in 1934-35, in response to the 1928 hurricane. The levees held firmly despite a wind tide which reached 21.90 feet mean sea level (6.17 feet above the lake level) and wave heights from 6 to 8 feet high from trough to crest.

Over 30% of the city of Fort Lauderdale was inundated by floodwaters, including the main business district, railroads, industrial areas and residential sections. At that time, there were about 26,000 people living in Fort Lauderdale. Large areas in the western part of the city of Miami, where 192,122 people lived in 1945, and in the outlying communities of Miami Springs and Hialeah were flooded. West Palm Beach -- in 1945 a town with a population of 40,599 -- experienced some flooding in 1947, primarily in outlying suburban areas. Damages from the 1947 floods to the east coast areas of Dade and Broward Counties were estimated at \$42 million. At that time, the Corps noted that "as these areas will inevitably grow and expand even without adequate flood protection, larger damages may be expected unless preventive measures are taken."

JEANNE BELLAMY, ON THE TAMING OF THE EVERGLADES

In November 1947, Jeanne Bellamy, a writer for the Miami Herald who would also eventually become a Board member of the agency born in 1949, wrote a series of articles about water problems and water control in southeast Florida. Titled "Taming the Everglades," the series included descriptions of the flood of 1947, the preceding problems, and the plans recommended by the Army Corps of Engineers. It is excerpted below:

"The great flood of 1947 may become a turning point in the history of South Florida. Fixing blame for the flood is easy. The damage it did was due to these two facts: people are living in parts of the Everglades which nature made unfit for humans; and efforts made to

date to change natural conditions in the Everglades have not been a success. For 50 years, civilization has been trying to conquer the Everglades. The 1947 flood proved the Everglades remain untamed.

Since 1900, Everglades floods have killed more than 2,000 men, women and children, and ruined about \$50,000,000 worth of man's works. What has been done in the past half century to try to tame the Everglades has destroyed natural assets worth at least another \$50,000,000. That's a toll of 2,000 lives and \$100,000,000. Every summer may be a time of flood in the Everglades. Every winter may bring drought. Some years, or series of years, bring too much rain, others too little. No formula has been found for predicting when these long range floods or droughts will come.

" Experience of the past 50 years has proved that drainage alone does as much harm as good. Unchecked drainage has left the rich soil parched in dry seasons. In such times, the land has become a dust bowl, and fire has consumed untold acres of the peatlike soil. Drainage also has lowered the water table in the Everglades so that the seaward push of fresh water in the ground has not been strong enough to hold back the massive thrust of the ocean. The sea has crept into the rock along the coastline, salting wells which supply the cities and those which irrigate groves and farms.

"The coastal cities have spread westward, down over the coastal ridge which is the eastern rim of the marsh, into the low fringe of the Everglades basin. It was these western suburbs which suffered most acutely in the 1947 flood... All the water in the Everglades comes from rain. Three-fourths of it evaporates... The Everglades are flat. Probably no other spot on earth of similar size is so flat as the Everglades. Floods do not run off quickly from this flat land."

In her series, Bellamy described the plan drafted by the Corps of Engineers, which included levees and dikes to control water in the more than 600,000 acres south of Lake Okeechobee which made up the Everglades Agricultural Area ; use of the lake as a reservoir; the "huge pumps" to be used to move water; creation of the water conservation areas, and facilities to discharge excess water into the new Everglades National Park.

"The Everglades Drainage District was created by the Florida legislature in 1913 to drain the Everglades. It went broke in 1931. It defaulted on an \$18,000,000 debt incurred to finance the work finished up to then. Refinancing in 1944 cut the district's debt to \$4,500,000, and this has been reduced to \$2,750,000 net. But the district is forbidden by law to spend money for anything but paying off this debt. Densely populated parts of the East Coast are not in

the Everglades Drainage District. But the 1947 flood in their suburbs, and droughts which hit their water sources, have proved that these cities have an interest in water control for the Everglades. They should bear a share of the cost.

Bellamy called for "all the people of the United States" to foot part of the bill for the Project, as "they have a stake in the rich Everglades lands which provide winter vegetables for the nation. The plan drafted by the Army Engineers will permit step-by-step construction. First would come the work needed to protect lands actually under cultivation or in use by cities and their suburbs. Protective works could be extended as need arises.

"Here's what a united South Florida can do now: win Congressional approval and a federal appropriation for the water control plan drafted by the Army Engineers; set up a sound plan to raise the rest of the money needed for construction and the money which will be needed to maintain and operate the system from now on; decide how the system shall be operated, and then get laws enacted to give the controlling agency the power and money it will need."

Three decades later, Jeanne Bellamy was appointed to the Governing Board of the South Florida Water Management District, the agency the FCD had evolved into by 1976. Bellamy served on the Board from 1979 - 1983.

THE CRYING COW & THE EVERGLADES DRAINAGE DISTRICT

On December 12, 1947, the Everglades Drainage District produced a spiral-bound book entitled: "Tentative Report of Flood Damage." On the cover is an artist's rendering of a crying cow, immersed up to its neck in flood waters. Some people have called this the "Crying Cow Book." It contained photographs of flood scenes and a printed report entitled: "Tentative Report Showing Estimated Losses to Agriculture, Highways and Drainage Works in Eleven Counties Comprising Everglades Drainage District."

Pictures in the report include: aerial views of flooded streets and homes in Fort Lauderdale; and flooded orange groves in Broward County, where trees died from floods; an aerial of a flooded power plant and groves in Broward; a cow in Collier County, swimming through deep water; aerial views of flooding in Dade County, including Hialeah residential and business districts, the flooded Hialeah Race Track; a flooded traffic circle at Miami Springs and a soggy Naval Air Station with Miami in the background.

Also pictured in the report were: Glades County with water over the road to the Brighton Indian Reservation and lakes instead of fields; the main road on the west side of Lake Okeechobee -- under water; washouts at bridges in Hendry County; flooded ranches and farms in Highlands and Martin Counties;

and a shot of U.S. Highway -1 in Martin County, washed out and under water. Dead cattle in Palm Beach County were shown; and more than a dozen other photos of serious flooding in Monroe, Okeechobee, Palm Beach and St. Lucie Counties were in the report.

Property damage totals tallied in the report, county by county were: Broward, \$17,417,021; Collier, \$424,800; Dade, \$8,188,200; Glades, \$1,571,000; Hendry, \$739,400; Highlands, \$2,035,000; Martin, \$2,563,700; Monroe, \$380,000; Okeechobee, \$4,018,000; Palm Beach, \$7,396,000; and St. Lucie \$7,270,400. Damages to the works of the EDD were \$885,000. Total losses from the 1947 hurricane were estimated by the EDD at \$52,858,521. The United States Army Corps of Engineers estimated the damages as closer to \$59 million in a "Comprehensive Report on Central and Southern Florida For Flood Control and Other Purposes," dated February 19, 1948.

In 1948, less than a year after the great flood, the Corps of Engineers recommended -- and Congress authorized -- \$208 million for the Central and Southern Florida Flood Control Project (C&SF). The proposed project area was approximately 16,000 square miles. The proposal said that the United States would build the Project provided that local interests would: Share in paying 15% of project construction costs; provide the federal authorities with lands, easements and rights of way; take responsibility for the operation and maintenance of completed works, according to Corps specifications (excluding works retained permanently by the Corps); and hold and save the U.S. harmless from any damage claims.

These and other terms were set forth by R. A. Wheeler, Lieutenant General and Chief of Engineers, United States Army, in a formal agreement. In that agreement Wheeler said, "I concur with the Board of Engineers for Rivers and Harbors in recommending modification of the existing Federal project for the Caloosahatchee and Lake Okeechobee drainage areas to provide for further improvement in the interests of flood control, drainage, and related purposes... in Central and Southern Florida..." Local share in payment for each part of the work was to be paid prior to initiation of construction, Wheeler said, "except that the total local cash contribution for the comprehensive project shall not exceed \$29,152,000." The locally designated authority to maintain and operate the Corps project works had to do so "in accordance with regulations prescribed by the Secretary of the Army, except the levees, channels, locks and control works of the St. Lucie Canal, Lake Okeechobee, and Caloosahatchee River and the main spillways of the conservation areas." According to this agreement, the Army Corps of Engineers would operate and maintain "in perpetuity the main flood release works."

In 1949, the Florida Legislature created the Central and Southern Florida Flood Control District (FCD) to act as the local authority charged with operating and maintaining those Central and Southern Florida Flood Control Project (C&SF) works not retained by the Corps. The FCD was set up as a Special Taxing District -- to represent the State and all local interests in the building and later operation of the works of the Federal Project. In those days, the Florida Legislature met only once every two years, and 1949 was the earliest date at which the Legislature could act after the Congressional authorization. The District inherited and is successor to both the Everglades Drainage District (EDD) and the Okeechobee Flood Control District, local flood control entities which originated in the early 1900s.

THE PLAN FOR FLOOD RELIEF OUTLINED

The overall plan for flood relief and water conservation works, for an area of about 16,000 square miles, is set forth in House Document 643, 80th Congress, 2d Session, entitled: "Comprehensive Report on Central and Southern Florida for Flood Control and Other Purposes." The Project plan called for an east coast protective levee, extending more than 100 miles from a point southwest of Miami to Lake Okeechobee near the St. Lucie Canal; and three water conservation areas, in Palm Beach, Broward and Dade Counties for water impoundment in the Everglades west of the east coast protective levee, with control structures to allow transfer of water as necessary.

Also included in the project plan were protective works along the lower east coast, levees, canals, spillways and dams; the enlargement of portions of the Miami, North New River, Hillsboro and West Palm Beach Canals; and enlargement of the existing Lake Okeechobee levees and construction of new levees and interceptors on the northeast and northwest shores of Lake Okeechobee.

Plans to increase and improve Lake Okeechobee's outlet capacity, including widening and deepening of the Caloosahatchee River and construction of a major new lock and spillway on the river near Fort Myers; floodway channels in the Kissimmee River Basin with control structures to prevent overdrainage; and excavation of channels and construction of spillways, dams and boat locks for both the Kissimmee River and the chain of lakes in the Upper Kissimmee Basin were a part of the project plan. Facilities for regulation of floods and for water conservation in the Upper St. Johns River Basin were also part of the project.

In addition to providing works for flood protection, water conservation and water supply, the Project included seven navigation locks in the Kissimmee Basin, each 20 by 90 feet in size; six locks, 20 by 60 feet, in the St. Johns River Basin, channel excavation and bridge alterations for recreational boating use.

ITEMIZING THE COST OF FLOOD CONTROL FOR SOUTH FLORIDA

First Cost Summary of the Project in House Document 643 is seen in the chart below:

	Construction	Lands & Relocations	Total
Upper St. Johns	\$ 20,322,000	\$ 703,000	\$ 21,025,000
Kissimmee Basin	33,750,000	1,116,000	34,866,000
Lake Okeechobee Everglades	93,540,000	2,141,000	95,681,000
East Coast	52,411,000	3,982,000	56,393,000
Meteorological - Hydrological	170,000	-----	170,000
Total	\$ 200,193,000	\$ 7,942,000	\$ 208,135,000

In a very optimistic view, the House Document predicts possible completion of the Project in 10 years. "Assuming, however, that adequate appropriations were made by Congress and that requirements of local cooperation were met, the entire comprehensive development could be completed under an orderly and efficient construction program in 10 years. It is considered, however, that completion of certain parts of the plan should be deferred beyond this period, as the need for such features will depend on progressive development of the areas."

In its initial plan, the Corps recommended a four-stage construction program: First, construct the main levee between the Everglades and the east coast area, modify the control facilities and levees around Lake Okeechobee, and initiate control works in the headwaters of the Kissimmee and St. Johns Rivers.

During the second stage of construction, the Corps planned to build levees to enclose the agricultural areas south of Lake Okeechobee. At the same time, pumping stations to serve agricultural areas and local protection works for Palm Beach, Broward and Dade Counties would be built, and improvements made to the Kissimmee River channel.

By the third stage of construction, levees enclosing the Everglades conservation areas on the south and west, and the Everglades agricultural area would be completed. By this time, connecting channels and control works in

the Kissimmee, Upper St. Johns and North Fork of the St. Lucie River areas would be completed.

During the final construction stage, levees, pumping stations, and outlet canals of the Everglades agricultural area, as well as control works for the conservation areas would be constructed. But this is not what was actually done in the years to follow.

FLOOD CONTROL PROJECT BENEFITS OUTLINED

Average annual benefits of the proposed improvements, evaluated in monetary terms, were summarized in HD 643. Those were: for prevention of flood damages \$ 8,251,000 in benefits; increased use of land \$ 15,855,000; improved navigation \$176,000; preservation of fish and wildlife \$ 291,000. The estimated average annual benefit attributable to the project: \$ 24,573,000.

In a comparison of the estimated average annual benefits and total annual costs, a benefit-cost ratio of 2.05 was estimated. "It is therefore apparent that the plan as a whole is economically justified by a wide margin," the Corps said in its project proposal. The cost of the project was divided between two types of uses, according to the proportion their benefits bear to the total benefit. For example, 35.4% was charged to flood control, navigation and preservation of fish and wildlife. The part chargeable to increased use of land: 64.6 %.

The cost of the part of the project which is for flood control, navigation, and fish and wildlife preservation (35.4 percent) was considered a Federal responsibility. The cost of increased land use (64.6 percent), the Corps said, should be divided between the Federal Government and local interests, because both the Nation as a whole and local people would share in benefits of increased use of land.

"Division of the part of the cost chargeable to increased land use has been made by recognizing the established Federal practice with irrigation projects -- which results in dividing the first cost equally between the Federal Government and local interests; and in charging local interests with costs of maintenance and operation. This has the effect, on the average over a number of projects, of dividing the total cost (first cost plus maintenance and operation) approximately 60 percent to local interests and 40 percent to the Federal Government. Accordingly, these proportions have been used in dividing the part of the cost of this project chargeable to increased use of land."

The House Document also described at length, "Coordination with other Agencies." Agencies referred to included the Department of Agriculture, the Fish and Wildlife Service, the National Park Service, the Bureau of Indian Affairs, and other local agencies.

NO CONFLICTS APPARENT AS EVERGLADES NATIONAL PARK IS DEDICATED

On December 6, 1947, President Harry Truman formally dedicated Everglades National Park, a vast subtropical wilderness -- 1.4 million acres of land and water. Much of it was a gift to the United States from the citizens of Florida. The importance of the Park was recognized in HD 643. "It is the second largest national park in the continental United States, and home to 11 species of endangered animals. It is the delta of the Everglades, with a diversity of plant and animal life, ranging from those of fresh water to brackish and salt water environments.

The comprehensive plan for flood control in South Florida was "prepared in full recognition of the Everglades National Park which has been established at the extreme southwestern tip of the peninsula. Since the Park was opened formally on December 6, 1947 only a few days before completion of this report, it has not yet been possible to examine all aspects of the relationship of the national park area to the plan proposed in this report. The proposed plan of improvement, however, would not damage or interfere with this great national park, as the purposes of the comprehensive plan are aimed at restoring and preserving natural conditions over areas which appear unsuited to agriculture," the Corps proposal stated.

"During large floods, such as that of 1947, substantial releases of water through the controlled Tamiami Trail embankment would result in flows into the national park area which would be similar to those which prevailed when the natural flood waters of the Everglades passed to the sea through that region. In dry periods it would be possible, because of the proposed conservation areas, to release water into the park area which would assist in reducing fires and other damages which accompany periods of drought. In brief, it is believed that this comprehensive water-control plan and the national park plan are complementary features of Federal activity necessary to restore and preserve the unique Everglades region."

These conclusions by the Corps in its project plan would in future years be questioned. And the future of the National Park and its wildlife, the quality and quantity, and the timing of water releases into the Park would become top priority objectives of the Water Management District in coming years.

In retrospect, it was clear that two events of 1947 were to have the most profound effects on the life and well-being of Florida and its residents for the remainder of the 20th century and beyond. Those events were the flood of 1947 and the dedication of Everglades National Park.

CHAPTER 2 - THE 1950s: THE DISTRICT GETS GOING

The first phase of the Central and Southern Florida Flood Control Project was authorized by Congress in the Flood Control Act of June 30, 1948. Phase 1 consisted of the works necessary to provide flood protection and water supply to the urban area along the lower east coast and to the agricultural developments south of Lake Okeechobee. Phase two, consisting of all remaining works of the original Comprehensive Plan, was authorized by Congress in the Flood Control Act of September 3, 1954.

After the 1948 authorization, local interests met and debated plans for creation of a multi-county water management agency. It would have to have taxing authority to raise funds for: lands, easements and rights of way, and operation and maintenance of completed works. It was anticipated that the State would provide the matching money for the Federal construction program, since both the State and the Nation would benefit from the project.

Jeanne Bellamy of The Miami Herald described an important meeting in the city of Okeechobee. "Millard Caldwell and Fuller Warren appointed a committee," she recalled. "I was Secretary. It was suggested that the tax rate be on a sliding scale, with the lowest in Miami Beach, because of minimum benefits there; the maximum benefits would be in the agricultural area. But the word was passed at Okeechobee -- there would be a flat millage or no district."

They got their wish. A uniform millage was authorized by the Legislature when it created the District.

DETERMINING THE SHAPE & FUNCTION OF THE FCD

John R. (Jack) Wilson, who had a garden supply and spraying business in West Palm Beach Beach for 40 years, starting in 1927 -- Wilson Supply Company -- recalled he served on a committee of the Palm Beach County Resources Development Board -- a committee of five members working to create a water management district.

"I was on the committee with four others," Wilson said. "Ralph Blank spearheaded it. There was Luther Jones (of the Belle Glade Herald), Bob Creech, Red Mounts (county agricultural agent) and myself. Turner Wallis and Lamar Johnson worked with us. Lamar built the 'Jesus Shoes,' which he

describes in his book Beyond the Fourth Generation. His book is very accurate. He went to Tallahassee and lobbied for the district," Wilson concluded.

The Florida Legislature put the FCD project in motion in 1949 by passing two laws. The first, Chapter 378 Florida Statutes, made general provisions for the organization of districts for the purpose of cooperating with the United States Government on authorized projects. This law also set up in the general revenue fund an account to be known as the Flood Control Account; it was to provide assistance to districts created under the law. Cooperative actions that were authorized included those specified by the Federal government in HD 643, namely: the contribution of cash; the providing of lands, easements and rights of way; the furnishing of assurances to hold and save the United States free from damages due to construction and operation of works of improvement; and to maintain and operate the works after completion. The District is also responsible for certain relocations.

The law provided that a district formed under its provisions should be directed by members appointed to a Governing Board, each serving three-year staggered terms. The Board members were to be appointed by the Governor, subject to confirmation by the Senate. No compensation was to be provided, but expense monies were granted while actually on work for the District. The law also provided for the employment of personnel to carry out the projects of the district, and empowered the district to levy taxes to finance its share of project costs.

A second law, Chapter 25270, created the Central and Southern Florida Flood Control District as a 99-year public corporation. On June 2, 1949, Governor Fuller Warren signed that bill. It established the FCD's boundaries, levied an initial tax, and provided for the abolishment of the Okeechobee Flood Control District (OFCD). All of the functions and assets of OFCD would be transferred to the new District, which covered 15,570 square miles and included all or part of 17 different counties.

Over the years, many people have claimed to be the father or founder of the Flood Control District. But those who witnessed the signing of the bill by Governor Warren -- pictured in a large photograph that has been on display on a wall at the District's headquarters for many years -- are the following:

John Kennedy, Ralph Blank Sr., R.B. Gautier, Col. A.G. Matthews, Stacy Rogers, Irlo Bronson, George Okell, Ebert Stewart, John Beacham, W. Turner Wallis, James A. Franklin, B. Elliot, John E. Bollinger, Ted David, John Burwell, Lamar Johnson, George Laird, Wareing T. Miller and Fred Elliot.

The FCD's first meeting was held in West Palm Beach at the Comeau Building on July 14, 1949 at 10:00 A.M. Those attending that meeting included: Dave Turner, Dr. Fred Bartleson, Joe S. Earman, N.J. Hayes and Lawrence Rogers, duly commissioned members of the first Governing Board of the Central and Southern Florida Flood Control District. Also present were Stacy Rogers,

Chairman and General Manager of the soon to be dissolved Everglades Drainage District (EDD), W. Turner Wallis, Secretary Treasurer and Chief Engineer, EDD; Wareing T. Miller, Attorney for the EDD; Margaret L. Grosser, Assistant Secretary Treasurer, EDD; the Honorable John R. Beacham, State Senator; Ralph Blank, Palm Beach County Research Development Board; the Honorable J. Alex Arnette, Clerk of Circuit Court, Palm Beach County; Allen Dixon; Tom Campbell; Johnson Wright; and Col. A. G. Matthews, State Board of Conservation, Division of Water Research and Survey.

THE FCD'S FIRST GOVERNING BOARD SETS PRIORITIES

The five Board Members were given the oath of office by the Honorable J. Alex Arnette, Clerk of Circuit Court of Palm Beach County. Dave Turner was appointed to a three-year term, as was Dr. Fred Bartleson. Their terms would expire, respectively, on July 11, 1952 and July 12, 1952. Joe S. Earman was appointed to serve for 1 year -- until July 12, 1950. Both N. J. Hayes and Lawrence Rogers were appointed to two year terms, to expire July 12, 1951.

Dave Turner was elected Chairman of this first Governing Board, and Joe S. Earman became Vice-Chairman. In accepting the Chairmanship Turner said, "The magnitude of the flood control project now under way cannot be overemphasized. Florida has never before had an opportunity like this one offers."

"Emphasis, however, must be placed on our financial position. I cannot stress too strongly that the State of Florida through the Legislature must provide more revenue or the complete collapse of the flood control program will be inevitable. Economy must be accented, but my conception of economy does not include a denial to the State the opportunity of receiving \$171,000,000 of Federal funds by reason of a failure by the Legislature to provide revenue for the flood control program. This having not been accomplished, it is absolutely essential that same be expedited lest we shall lose for all time the gigantic Federal aid program for Florida flood control," Turner said.

The Board, by resolution, designated a number of district positions and personnel. They were: Stacy Rogers, General Manager; W. Turner Wallis, Secretary -Treasurer and Chief Engineer; Margaret L. Grosser, Assistant Secretary -Treasurer; Lamar Johnson, Assistant Engineer; Wareing T. Miller, General Counsel; Emerson Cook Company, Fiscal Agent. (*This Resolution is appended in the Record Book as Resolution No. 1*).

Individuals and organizations were commended for their help in the establishment of the new Flood Control District. In other resolutions, the Board designated various banks as depositories of the District's funds, and established the Comeau Building in West Palm Beach, Florida, as the principal

office of the District. The Seal and Record Book of the District were displayed and adopted at this meeting.

General Counsel Wareing T. Miller was empowered by the Board to begin to acquire lands necessary for water conservation areas, reservoirs, levees and canals --and was directed to establish a legal department for the District.

The Board directed the transfer of all assets -- real, personal and mixed -- of the Okeechobee Flood Control District, by no later than midnight, July 31, 1949. Lands were certified to the Tax Assessor of each county within or partly within the District, and the Chairman was authorized to negotiate necessary cooperative agreements, subject to final approval by the Board.

The Board also established a policy for action on employment applications after investigation and recommendations by the General Manager had been made. Chairman Turner called a special meeting for August 1st, at 10:00 A.M., in the District Office at West Palm Beach, Florida.

Senator John Beacham suggested either the entire Board, or some portion of its membership, be available during the Special Session of the Legislature. The Board decided that arrangements for attendance at Tallahassee would be at the discretion of the Board's Chairman.

BEGINNING TO DO BUSINESS

The second meeting of the Governing Board was held on August 1, 1949, in the Comeau Building, West Palm Beach. All five Board members attended, as did Wareing T. Miller, Attorney; Stacy Rogers, General Manager; W. Turner Wallis, Secretary -Treasurer and Chief Engineer; and Margaret Grosser, assistant Secretary -Treasurer.

At this meeting, Ben Herr, Secretary of the Okeechobee Flood Control District, turned over the assets of that District, \$23,530.74, and reported no outstanding debts. Herr said an additional \$11,000 -- in funds from condemnation proceedings -- would be transferred to the C and SF Flood Control District at a later date.

The Board directed that assets of the Okeechobee Flood Control District be accepted, and submitted a resolution covering the fund transfer to the Army Corps of Engineers at Jacksonville, to determine if the resolution would be in conformity with Corps requirements. At that meeting, the Board requested funding "to pay for the costs of water storage areas complying with the U.S. Government requirements of cooperation of local interests" from the State Board of Conservation.

In other action the Board agreed to assume responsibility for compliance with conditions of local cooperation with the Federal Government, and in a

resolution directed at the Corps of Engineers and the federal government the Board agreed "to recognize the importance of the protection of human life and property from hurricanes, floods or attendant high waters, and give priority to works to be established under the overall plan for the District" with the words "and property" stricken.

The Everglades Drainage District (EDD) was reimbursed for expenses incurred during June and July (\$3,850.99) by the District, and a Surety Bond issued by Hartford Accident & Indemnity #231386, bonding W. Turner Wallis as Treasurer of the District, was accepted and the premium ordered paid.

The Board also agreed that soil capability surveys should be completed in and around the Caloosahatchee, Upper St. Johns and Kissimmee -- areas of the District where this type of study had not been done. Board member Dr. Bartleson suggested that proper governmental agencies and the Florida Delegation be apprised of the need for those soil capability surveys to ensure that every effort might be made to activate such a project.

As this second Governing Board meeting drew to a close, Chairman Turner suggested meetings be held throughout the District from time to time, "to better serve the District and its needs, and permit the people of the various sections involved to become better acquainted with the Board and its work." Following up on the suggestion, the next meeting was scheduled to be held at the Tropical Hotel in Kissimmee, Florida -- on September 3, 1949.

There had been talk of establishing District headquarters in the City of Okeechobee, near the geographic center of the District, rather than in West Palm Beach. Transportation in and out of West Palm Beach was better than at Okeechobee, and the city was larger, with more residential and commercial areas. The District opened offices in West Palm Beach and stayed there -- however, one of the District's main Field Stations was established at Okeechobee.

THE FIRST FIVE YEARS

Between 1949 and 1954, the Federal Government completed construction of the East Coast Protective Levee, which extends more than 100 miles from a point southwest of Miami to Lake Okeechobee. That levee forms the eastern boundary of the three Water Conservation Areas. The sawgrass and other vegetation in the WCAs acts to impede wind and wave action, so the levee is capable of holding back and retaining waters from "all storms as great as can be predicted" its builders said. The levee protects cities on the east coast from the flood waters that once flowed out of the Glades even after storms had passed. Water was to be stored in the WCAs for use in dry times.

Early FCD efforts included acquisition of lands, easements and rights of way for the construction program and for water storage. By 1954, the District had

acquired title / easements for 1,354 square miles of Everglades wetlands in Palm Beach, Broward and Dade Counties which became the three Water Conservation Areas (WCA). Water Conservation Area 1, in Palm Beach County, covers about 221 square miles, more than 142,000 acres. WCA-2 includes more than 42,000 acres in Palm Beach and more than 94,000 acres in Broward, or 213 square miles; and in Broward and Dade WCA-3 covers 920 square miles -- 377,080 acres in Broward and almost 589,000 acres in Dade. When possible the District acquired fee titles, but as a minimum, "flowage easements" were obtained on all the WCA lands.

In a memorandum submitted to the Board by the District Land Department in January, 1954 it was noted that title or easements for a total of 867,313.84 acres had been acquired, at a cost of \$1,453,049.46. The average cost per acre for these publicly and privately owned lands was \$1.70 @ acre. The average cost per acre for privately owned lands where the District had easements was \$5.76 per acre.

The Federal Project of 1948 had recognized the value of recreational use to the public in addition to navigation, preservation and enhancement of fish and wildlife as benefits. "Substantial recreational benefits would result from the comprehensive plan," according to HD 643. In an Agreement dated January 18, 1952, the FCD and the Florida Game and Fresh Water Fish Commission (FG&FWFC) agreed to manage Water Conservation Areas 2 and 3 to benefit fresh water aquatic life, wildlife and public recreation. A similar agreement for WCA-1 in Palm Beach County was drawn up. These agreements remain in force to this day.

The three Water Conservation Areas also represent almost 50 percent of the original fresh water Everglades in Florida. By preserving these water storage lands, the District is preserving almost half of the original Everglades wilderness. The areas would be threatened in later years by proposed commercial developments, including oil exploration and rock mining. Protection of the integrity of remaining wetlands / wilderness areas would become an even larger part of the District's mission in the 1960s, 70s and 80s.

Other works completed or under construction within this period were: the Snake Creek Canal (C-9); the South New River Canal (C-11), with two pumping stations (S-9 and S-13); the Plantation Road Canal (C-12), and spillway S-33 at Fort Lauderdale; the Middle River Canal (C-13), and spillway S-36; and the Holloway Canal (C-42). Structures were also installed in the East Coast Protective Levee, and Pumping Station S-5A at Twenty Mile Bend in Palm Beach County was completed. Primary work was also begun or completed on Pumping Station S-6, on the west side of WCA-1; Levees 7, 12 and 13 in the Everglades Agricultural Area; Pumping Station S-2 at Belle Glade; and Levee 1 near Clewiston in Hendry County.

In May 1954, the Engineering Department of the FCD published: "A Guide for the Agricultural Development in The Kissimmee River Flood Plain," with six

plates. Recommendations in this report call for a mile-wide floodway, as a minimum, between Lake Kissimmee and Istokpoga Canal, and a minimum width of floodway of 1.5 miles from Istokpoga Canal to Lake Okeechobee. In the headwaters of the Kissimmee the report states: "The recommended minimum floodway width for all connecting channels between the lakes should not be less than 1400 feet." Almost 30 years later, the wisdom of these original floodway recommendations became apparent, and some would be incorporated in a Kissimmee restoration project.

EARLY DISTRICT LEADERS W. TURNER WALLIS

W. Turner Wallis had been Secretary Treasurer and Chief Engineer of the Everglades Drainage District. Wallis was asked why he thought the EDD failed. "It did not embrace the entire problem area; was dominated by a Board far removed from the scene of the works; was underfinanced; and was subject to political chicanery," he said. Wallis began his career at the FCD in 1949 as the District's Secretary Treasurer and Chief Engineer.

In 1953, Wallis was made executive secretary, and relinquished his duties as Chief Engineer to Lamar Johnson. In January 1955, Wallis was given the title of executive director and secretary under the Governing Board appointed by Acting-Governor Charley Johns, and served in that position until 1956. His leadership was apparent both before and after his appointment as Executive Director.

In June 1956, the Miami Herald ran a story headlined: "Ailing Wallis Resigns As Flood Control Head - He'll Hold Advisory Position - Lakeland Banker Named Successor." The article, datelined West Palm Beach, began:

"W. Turner Wallis, top staff man of the Central and South Florida Flood Control District since its start in 1949, stepped down Friday as FCD executive director for health reasons."

Wallis, then 55, would take over the FCD's planning and research department and act as advisor to Bolivar F. Hyde of Lakeland, the new Executive Director. Wallis would be paid \$12,000 a year for these services, the same salary he'd earned as Executive Director. As director of planning and research, the article said, "Wallis assumes a post vacant since the firing last November of William L. Sylvester, who was known as public relations head. At the time, officials said a successor would not be appointed because the work was no longer essential to the FCD."

Bolivar Hyde, a native of Mississippi who was then 40, had resided in Florida since 1926. He was appointed Executive Director by the Board, the article noted, after Wallis requested to be relieved of his duties "as the condition of my health does not permit me to continue with the present heavy work load

and long hours." Hyde, described as a prominent Florida business executive, began work on July 1 as Board secretary and Executive Director, at a salary of \$12,000 a year.

In the Miami Herald article, Wallis said he was also considering another, related post -- that of engineer to the recently established State Land Use and Control Commission. A few weeks later, the Associated Press reported that Wallis had been hired for that position, at a commission meeting in Tallahassee; and that "his employment would be on a part-time basis, enabling him to spend part of his time with the FCD." Commission Chairman Mercer Brown of St. Petersburg was quoted by the Associated Press as saying "Wallis' first big job will be completing an inventory of all state-owned lands in Florida." Wallis was quoted as saying he hopes to complete this task within six months. According to Brown, the Florida Engineering Society and Fred Elliott, Secretary of the Internal Improvement Fund, had recommended Wallis for the new job.

Two decades later, the District's largest pumping station, S-5A, at Twenty Mile Bend in Palm Beach County, was named in honor of Wallis. Wallis was born in Clarksburg, West Virginia on November 12, 1900. He earned his Bachelor of Science degree in Civil Engineering at Virginia Military Institute in 1920. In the 1960s Wallis was self-employed as a consulting engineer. He died in Kissimmee, Florida on March 19, 1972.

FCD OFFICES RELOCATED -- FROM COMEAU BUILDING TO EVERNIA

In 1956, within two days in late May, the FCD moved its offices -- to a new, three-story, \$354,000 Administration Building, located at 901 Evernia Street. The new building was dedicated in a ceremony on December 12, 1956.

The Miami Herald covered that ceremony, and ran a story headlined: "Sen. Holland Boosts Unity in Flood Project."

"A battle that has extended over more than a quarter of a century to harness flood waters in Florida was traced from the beginning here Wednesday by U.S. Sen. Spessard L. Holland," the story began. Holland was introduced by 6th District Rep. Paul G. Rogers as "the father of the flood control program." Sen. Holland had come to the FCD ceremony from Miami, where he was honored by the National Farm Bureau as 'the outstanding man for agriculture in the nation'."

Sen. Holland, the principal speaker, said he hoped, "that the unity and coordination that has marked the program will push the whole project to completion in the shortest possible time for the benefit of all the people."

Holland recalled the problems posed by the disastrous 1926 and 1928 hurricanes, and various measures taken over the years to ensure those disasters were not repeated. Holland talked about initial efforts to erect protective barriers around Lake Okeechobee, the creation of the Everglades Drainage District and the trouble over bonds to finance flood works.

Explaining the joint federal-state efforts from which the present 17-county program had evolved, Holland lauded the late Rep. Dwight L. Rogers for his help in shaping flood control efforts, and the efforts of Rogers' son to obtain needed appropriations.

Others participating in the ceremony included: Col. J.L. Person, acting chief of the U.S. engineers for civil works; Col. E.E. Kirkpatrick, the District engineer, and J. Abney Cox, Coral Gables, FCD Chairman. Wilbur Jones, chairman of the State Road Department, represented Gov. LeRoy Collins at the ceremonies and cut the ribbon at the entrance to the new building.

The 1956 Governing Board members were: Chairman J. Abney Cox, Coral Gables; Vice-Chairman W.H. Hitt, West Palm Beach; D.G. Click, Clewiston; Brian K. McCarty, Fort Pierce; and C.L. Thacker, Kissimmee. Bolivar F. Hyde, Jr. was Executive Director and Secretary.

Maj. Gen. Charles Holley, deputy chief of U.S. Army Corps of Engineers, Col. C.G. Peterson, of the South Atlantic division, and B.R. Fuller, executive director of the Florida Development Commission, attended the dedication of the new FCD headquarters. Also present were former members of the FCD: among them Roland Hardy of Pompano Beach; W.B. Barron of LaBelle; and former Board chairman Gene Moore of West Palm Beach, during whose tenure plans for the new headquarters were launched.

The District's headquarters remained at the building on Evernia Street for 19 years, until December 1975, when offices were relocated to 3301 Gun Club Road, in western West Palm Beach.

THE DISTRICT'S SECOND FIVE YEARS

In the five years from 1954 to 1959, construction was completed on a network of levees and canals which circled and crossed the fertile mucklands of the Everglades Agricultural Area (EAA). Close to 700,000 acres of rich peat and muck soil were drained and leveed. The sugar, cattle and vegetable industries already established in the area lost no time in expanding cultivation of these lands, which have been called "the winter vegetable garden of America." Some additional east coast canals were also constructed at this time, including C- 17 and 18 in Palm Beach County. Work was also begun on structures and a canal near the northwest shore of Lake Okeechobee.

In "Eight Years of Progress - 1949-57" a 1957 publication by the FCD, it was said that, "Construction progress on the works in the comprehensive project plan in terms of contracts completed or underway is now approximately 15% of the total work as currently estimated."

The District's staff organization at this point included seven Divisions. Overall District policy was directed by the five-member Governing Board. In the 1950s and 1960s, Governing Board members were appointed to staggered three year terms, representing different geographical areas within the District. The policies of the Board were to be administered by the Executive Director, who would then direct District staff. The seven Divisions which existed in 1957, and their duties, as described at that time were:

PLANNING AND RESEARCH DIVISION: responsible for the gathering, interpretation and dissemination of information relative to the internal and external functions and purposes of the multi-purpose flood control and water conservation project.

LAND DIVISION: responsible for the acquisition of all real estate required by the District for rights-of-way and other purposes.

ENGINEERING DIVISION: maintained drawings of all District works, made hydrological studies and issued and recorded permits. It also maintained a continuing liaison with the Corps of Engineers.

LEGAL DIVISION: conducted court proceedings in connection with the acquisition of land by whatever action might be required, and undertook legal work as necessary.

DIVISION OF OPERATION AND MAINTENANCE: responsible for the operation of pump stations, the District radio communications system, maintenance of levees, canals and structures, and inventories of materials.

DIVISION OF ADMINISTRATION: responsible for personnel management, and for the performance of office services for the District headquarters.

DIVISION OF FINANCE: responsible for finance, accounting and procurement. Fund supervision, budget preparation, tax matters and disbursements were also concerns of the Division. In addition, cost accounting and payroll accounts, as well as the purchase of supplies and materials were among its responsibilities.

EXTERNAL INFLUENCES SHAPE & DEFINE THE FCD

The District was also influenced by external factors, which helped to define and to broaden the role of the District throughout its history. The Bair suit, named for Robert Bair of Stuart, challenged the District's taxing authority. Bair argued that the District's ad valorem tax was illegal, since the State Constitution forbids state agencies from levying a tax. The case went all the way to the Florida Supreme Court, which ruled in favor of the District. The Supreme Court ruled that the District was not a state agency, in the same sense that the Florida Game and Fresh Water Fish Commission or the State Road Department are statewide agencies. The District was defined as a Special Taxing District, created by the State Legislature, and the Court ruled that the District's power to tax was absolutely legal. According to this definition, the District was "an agency of the state," but not a state agency.

The District also grew geographically in the mid 1950s. Local interests from Monroe County persuaded the State Legislature to add a portion of Monroe County to the Flood Control District. The area added was a tract just north of Everglades National Park, west of Forty Mile Bend, and south of the Tamiami Trail (U.S. Highway 41), in the area of State Road 94 and the Ten Thousand Islands. With this addition, as the District entered the 1960s, it included all or part of 18 counties. The Monroe County land was added even though there were no plans for Project works in that area.

THE FCD INFLUENCES THE REGION & ITS GROWTH

The District was credited with helping to bring Pratt and Whitney Aircraft, today one of South Florida's largest employers, to Palm Beach County. Donald S. Hazard, assistant chief engineer of Pratt and Whitney, was in charge of selecting a site in Florida for a new company research and development plant. He said the company had run a series of blind ads for engineers, one for a Connecticut site, one for a mid-Atlantic site, and one for Florida; the Florida advertisement brought in far more letters than any other. So Hazard was sent to Florida to pick a site to recommend to his Board of Directors. Hazard credited B. Arnold more than any other individual with convincing him to bring the plant to its present site. The company would become the largest employer in Palm Beach County.

THE SECOND DECADE'S LEADERS

Five men who joined the District in its first decade led the staff for the next twenty years, into the 1970s. They were: William V. Storch, Chief Engineer; Zeb C. Grant, Director of Operations and Maintenance; Robert Grafton, Chief Counsel; John R. Greenwood, Treasurer and Controller; and George E. (Ed) Dail, Jr., Executive Director.

William V. Storch, a Professional Engineer, originally from New York, joined the FCD in the mid-50s. He was promoted to Deputy Director of the Engineering Division in 1956, and was later named Chief Engineer. He remained Chief Engineer until his death, at age 53, on December 8, 1976.

Storch apparently suffered an aneurysm while making a presentation at a Governing Board Regulatory Meeting on November 12, 1976. He handed his folder to Dick Rogers, and asked him to finish the presentation. Storch left the auditorium where the meeting was being held, returned to his own office and collapsed at his desk. He died in a hospital in Miami three weeks later. Many considered Storch to be the principal architect of the water management system in South Florida. An oil portrait of Storch has been on display in the lobby of District headquarters since 1977.

Zeb C. Grant succeeded B. Arnold as Director of Operations and Maintenance. Grant remained in that position until his death, at age 50, of an apparent heart attack on December 5, 1978.

Bob Grafton has been employed by the District since February 1, 1956. Grafton retired on September 30, 1986. He had been the District's Chief Counsel from 1959 to 1983. In recent years, Grafton returned to the District to work as a consultant, acting as a liaison with the state legislature.

John R. Greenwood had been employed by the FCD's predecessor, the Everglades Drainage District. Greenwood joined the FCD in 1949, the year it was created. He died on July 20, 1978 in a hospital in Georgia, only a few weeks after his retirement from the District. He was 64.

George E. (Ed) Dail, Jr., joined the District as its Executive Director in 1958, succeeding Bolivar Hyde. Dail served as Executive Director for the next 16 years. Those years were marked by great construction activity, and the evolution and redirection the agency would undergo in the 1970s. Dail announced his resignation for health reasons at a Board meeting on November 15, 1974, to be effective January 1, 1975. At that meeting Jack Maloy was named Acting Executive Director. Dail returned to the District as Assistant Director of Resource Planning, and served in that capacity until January 1983, when he retired.

Dail was born in Philadelphia on October 31, 1918. He attended the University of Pennsylvania, then transferred to Stetson University, in Deland, Florida, where he earned his B.S. degree in 1942. Dail served in the U. S. Army and was stationed in China in World War II. He was in the OSS, in a branch called Morale Operations. "Our base was in Kun Ming. We'd be dropped behind the Japanese lines. The Japanese only held the major railroads and major cities. They were pretty thin. We worked with a U.S. Naval group that had radio stations in occupied China. We worked with Chinese guerrilla groups, who worked for a War Lord. We didn't get to see many Japanese. You were dropped in and walked out," he said.

In 1946, Dail returned to Stetson to teach and do graduate work in economics. Dail next worked for the State Auditing Department, from 1947 - 1949. In 1949, he became Florida State University's Assistant Controller, and remained there until recalled to active duty in the Korean War. After his tour of duty, he became FSU's Internal Auditor until 1954, then went to work for the Board of Control (now the Board of Regents) of the University System for several years. Dail worked for the Governor in 1958, and shortly thereafter came to work for the FCD.

THE 1950s DRAW TO A CLOSE, AND A NEW ERA BEGINS

In 1960, the FCD's first Executive Director W. Turner Wallis, then a consulting engineer, summarized the changes water management had undergone in Central and South Florida in a paper titled "The District's Heritage from the Past as a Guide to its Future Direction." An excerpt of Wallis' observations follows:

"Central and Southern Florida is not naturally suited for intensive human habitation and use. By nature it is an area of vast marshes and swamps, with its flat expanses rising slightly above the level of surrounding seas -- in effect, one great flood plain with 50-60 inches of annual rainfall. So formidable was the area that, although it was one of the first known to Western man, it was one of the last to be settled. In spite of various inducements, it was almost 400 years after discovery of the peninsula before appreciable settlement got underway. As late as 1900 there were no more than 20,000 people in the area. By 1910, however, this figure had doubled, and between 1910 and 1920, population tripled...."

"At the time of the flood disasters of 1926 and 1928, the federal government still had not become involved extensively in improvement programs for the lower Florida peninsula... The loss of almost 3,000 lives to catastrophic flooding had a telling effect in Congress however, and despite the fact that general authority for flood control work was not to come until 1936, the Corps of Engineers was authorized in 1930 to undertake the containment and control of Lake Okeechobee as a rivers and harbors project. Anticipating passage of this act, the Florida Legislature in 1929 created the Okeechobee Flood Control District to cooperate with the federal authorities. Together they were responsible for the construction of the levees, hurricane gates and channel improvements which have served so well to this day in reducing damage from overflow of Lake Okeechobee..."

"By 1947, when a hurricane disaster of exceptional proportions occurred, it was apparent to all concerned that a new project was necessary and that it must be undertaken on a truly comprehensive basis... The result, of course, was the design of the current multi-purpose plan... So far, some \$68,000,000 in public funds have been expended for key facilities which are already proving their worth. Yet, so vast is this overall undertaking that this progress over 11 years represents no more than 20% toward completion. Obviously this pace must be stepped up.

"More than quickening its construction pace, however, this project must stay abreast of the changing needs it must serve in this land of rapid growth and development. A rush to an early completion of the present plan of improvement will have accomplished little if by that time it is not in keeping with the needs of the day. Above all, the project must be sensitive to these changing requirements and readily adaptable to provide for them. In these two major respects, this project can hold the promise of success where previous efforts, more limited in scope and purpose, failed. This guidance is the project's heritage from the past. If it is heeded, the Central and Southern Florida Flood Control Project may in fact be the culmination of a century-long effort."

Wallis' words were prophetic, forecasting the "changing needs" which would become apparent in the years ahead.

CHAPTER 3 - THE 1960s: CONSTRUCTION AND CONTROVERSY

The decade of the 1960s was a time of major construction for the Federal-State Project. It was also the decade when the conservation movement came of age. Voices were raised in concern about wildlife, Everglades National Park, and preservation of natural values.

The Water Conservation Areas were completed in Palm Beach, Broward and Dade Counties by the early 1960s and about 700,000 acres of land in the Everglades Agricultural Area, immediately south of Lake Okeechobee, had been drained and leveed. The big dike around Lake Okeechobee was enlarged and extended a distance of 100 miles. Pumping stations were constructed. Dredges and draglines enlarged the Caloosahatchee River, excavated the Kissimmee River Canal, and cut channels in the Upper Kissimmee Chain of Lakes. Spillways, dams and navigation locks were built on the canals.

The Army Corps of Engineers, Jacksonville District, published the first in a series of maps, color coded in red and green, entitled "Central and Southern Florida Flood Control Project." Red lines showed works "completed or under construction" and green lines showed "remainder of project" where construction was planned but not completed. Periodically, the Corps updated this map and reprinted it; over the years, more and more green lines became red lines.

The Corps also conducted studies and recommended additions to plans for the original C and SF Project, which were authorized by the Congress. In the first phase of the C & SF Project, works south of Lake Okeechobee were authorized in the Flood Control Act of June 30, 1948. Phase two, the remaining works of the original Comprehensive Plan, was authorized by the Flood Control Act of September 3, 1954. Improvements in Hendry County and in Nicodemus Slough (just west of Lake Okeechobee) were added to the Project in the Flood Control Acts of July 3, 1958, and July 14, 1960, respectively. Improvements in Boggy Creek, Shingle Creek, Cutler Drain Area, South Dade County, and the West Palm Beach Canal were added in the Flood Control Act of October 23, 1962. Improvements in Southwest Dade County were added in the Flood Control Act of October 27, 1965; the same act modified the 1958 authorization for the Hendry County improvements.

FIRST MAJOR STORM TESTS FLOOD CONTROL SYSTEM

In 1960, heavy rains tested the partially built flood control system. In July, Tropical Storm Brenda dropped from 8-16 inches of rain on the northern portion of the District. The Orlando area received 8 inches in 24 hours, and experienced flooding in low-lying sections. Then in September, Hurricane Donna, followed less than two weeks later by Tropical Storm Florence, brought even more widespread rainfall. West Palm Beach received 8 inches over two days from September 17-19. Total rainfall of from 12 to 28 inches was recorded in September of 1960. The lower east coast was especially hard-hit; most areas got 20 inches or more of rain. Miami got 26 to 28 inches.

These September storms resulted in net water storage increases in Lake Okeechobee which exceeded all previous months, except June 1930. The total net water supply to the lake for the first nine months of 1960 was greater than for any comparable period since the start of record keeping in 1912. The lake rose more than two feet above the level desired for that time of year, in spite of maximum water discharges through the Caloosahatchee and St. Lucie Canals. Despite these severe tests, the system worked well for most.

Winds from Hurricane Donna had created a five-foot wind tide on the lake. Yet in the Everglades Agricultural Area (EAA), 622,000 acre feet of water (more than 200 billion gallons) were removed during September thanks to the five FCD pumping stations and the network of canals and levees which had been completed by this time. In September 1947 and 1948, when comparable amounts of rain fell, water in primary canals reached 17 feet (MSL). In September 1960, water in the same canals was kept at 12 feet. The project's presence in 1960 resulted in savings, in the EAA alone, estimated at \$ 7.2 million. District-wide, it was estimated that Project works prevented flood damages of \$27,885,000. Where project works did not yet exist in 1960, flood damages of \$13.7 million were reported.

The Corps calculated that the Project prevented flood damages of \$56,800,000 between 1949 and June 30, 1960. With the amount saved in the 12 months which ended June 30, 1961, total benefits came to more than \$84 million. At that time it was estimated that the Project would return \$3.90 in benefits for every dollar spent over a 50-year period. By 1961, the Project had saved more in flood damages prevented than all the money spent to date for construction.

A new record of \$14,756,000 in Federal, State and District funds was spent for capital improvements in FY 1960-61. Project construction was about 27% complete by June 30, 1961. About \$80 million had been spent since 1949 -- the Federal share was \$68 million; the state's share \$12 million. The total cost of the Project was then estimated to be about \$292.5 million.

PRESIDENT HOOVER HONORED

The Herbert Hoover Dike Dedication was one of the highlights of 1961. Former President Herbert Hoover was the guest of honor at the ceremonies, held on the Dike at Clewiston. The dedication was unusual because most Federal public works projects, if named for individuals, are named posthumously. Florida Governor Farris Bryant, members of the State Cabinet, Senator Spessard Holland, Congressman Paul Rogers and many other state, federal and local officials also took part in the dedication. At a reception held later that day in the Town of Palm Beach, the former President met President-elect John F. Kennedy eight days before his inauguration.

This commemorative plaque was placed atop the Dike, and remains in place today.

HERBERT HOOVER DIKE

"During the 1926 and 1928 hurricanes, 2,500 lives were lost in the Lake Okeechobee area as a result of inadequate flood control. President Herbert Hoover personally supported and was directly responsible for early Federal construction of Lake Okeechobee levees for the protection of life and property.

"By Act of Congress July 14, 1960, the Lake Okeechobee levees were designated The Herbert Hoover Dike in commemoration of President Herbert Hoover's humanitarian efforts and interest in public safety, which permitted the safe development of the rich potential of this region.

*Started 1932 - Completed 1938
Constructed By Jacksonville District, Corps of Engineers, U.S. Army
In Cooperation With The State of Florida
Dedicated January 12, 1961*

FCD BOUNDARIES AND CONCERNS EXPAND

The 1961 Legislature expanded the area included in the Flood Control District by 135 square miles. The area added was in Orange County, specifically the Shingle and Boggy Creek Watersheds. The new northern boundary of the District included part of the City of Orlando. The law provided that the District's ad valorem tax would not be levied in the new area until flood control projects planned for Shingle and Boggy Creeks were authorized by the Congress. Those authorizations were made in 1962.

Members of the Governing Board in 1961 were: Chairman Riley S. Miles of Kissimmee; Vice Chairman Robert R. (Jack) Horner of Palm Beach; Brian K. McCarty of Fort Pierce; Curtis R. Barnes of Cocoa; and J. Bruce Vining of Miami. G.E. (Ed) Dail, Jr., of West Palm Beach, was Executive Director.

"Jack" Horner was an up and coming young political leader in Palm Beach County in the 1960s. Horner was a graduate of West Point, and an Officer in the Air Force in West Germany. He was stationed at Morrison Field, which would become Palm Beach International Airport. Once he left the service, Horner went to work for Boynton Landscape, which was at the time perhaps the largest "fancy" landscape company in the state.

Governor Farris Bryant appointed Horner and Vining in 1961, and Stanley W. Koller of Melbourne in 1962. Because all three were in their 30s when appointed, some called them "the Boy Board." Governor Bryant told his appointees he wanted them to work on public recreation projects. Bryant said that the State and the District owned and controlled vast tracts of public lands, water storage and wilderness areas, yet the public was barred from many of these areas by levees and canals. The Governor asked his new Board members to develop public recreation projects to remedy the situation.

They did. Two citizens committees were organized in 1961 to advise the FCD and the Board on how to provide more and better public recreation in and around the Water Conservation Areas of Palm Beach, Broward and Dade Counties.

Board Vice-Chairman Horner led the committee looking at Palm Beach and Broward Counties; J. Bruce Vining led the Dade County committee. In those days, the District had authority to plan recreation sites and could work with others to develop sites, but not until 1967 did the Legislature give the FCD authority to expend ad valorem tax revenues for public recreation projects.

THE PALM BEACH/BROWARD RECREATION ADVISORY COMMITTEE

There were 15 members on the Palm Beach/Broward Advisory Committee organized by Horner, which met at District headquarters. Robert F. Kleiser of Jupiter was elected Chairman and Dr. G. Mack Davis of Fort Lauderdale Vice Chairman. Fritz C. Stein, Jr., of Belle Glade was also a member of the original Palm Beach - Broward Recreation Advisory Committee. In 1988, Stein would be appointed to serve on the District's Board. Committee members said they could not meaningfully advise the FCD Board until they became familiar with the Water Conservation Areas and inspected possible sites. A two-day tour of the three WCAs was conducted in January 1962. After that, regular meetings were held at District headquarters.

DADE COUNTY'S RECREATIONAL ADVISORY COMMITTEE

Board member J. Bruce Vining, a real estate businessman in Miami, called the first meeting of the committee he'd recruited at the Du Pont Plaza Hotel, in December 1961. About 40 persons attended. Vining opened the meeting by talking about the Water Conservation Areas and the beauty of the sunrise in the Everglades west of Miami. Vining suggested the committee advise the District on ways to develop more public recreation in the District's Conservation Areas and canals in Dade County.

The Committee for Dade County was greeted less than enthusiastically. Mark Grossman, at that time chairman of the then-powerful Water Resources Control Council of the Miami-Dade Chamber of Commerce, somewhat reluctantly accepted the chairmanship of the Dade Advisory Committee. By the second meeting of the committee six months later, a consensus continued to evade participants, and disagreement ruled or had broken up every meeting. It became obvious that the committee would never agree on either the need for recreational sites in Dade County, or the agency which should be in charge of their development. That was the last of the Dade County Recreation Advisory committee. After that, FCD staff worked directly with Metropolitan Dade County's Park and Recreation Department in the development of recreation sites.

ADDITIONAL RECREATIONAL COMMITTEES FORMED

When Stan Koller was appointed to the Board in 1961, he organized the Upper St. Johns Recreational Development Committee. At that time the Upper St. Johns River was within the boundaries of the 18-county District; which included Indian River and Brevard Counties, parts of Okeechobee, Osceola, Orange, Volusia and Seminole Counties. (These areas were transferred to the St. Johns River WMD in the 1970s, following passage of the 1972 Water Resources Act.)

Dr. James A. Sewell, a Melbourne surgeon, headed the Upper St. Johns Recreational Committee. Sewell lived in Indialantic, and had a strong interest in hunting, fishing and other outdoor recreation. The committee recommended a tri-county plan for the 177,000 acre Upper St. Johns project -- incorporating 19 recreation sites along the "missile coast," from Vero Beach to just north of Titusville.

In November 1963, Board Vice Chairman Horner formed a new tri-county recreational development committee for Lee, Glades and Hendry Counties. This group immediately started planning outdoor recreation sites along the entire length of the Caloosahatchee River, including seven proposed parks. S.C. (Jack) Fry of Hendry County was the committee's Chairman; Irby Black of Lee County was Vice Chairman.

Board member William R. Scott of Stuart officially formed the Martin-Okeechobee-St. Lucie Recreational Development Committee in December 1963, combining the Okeechobee committee with his recreation committee from St. Lucie and Martin Counties. Okeechobee members named by Scott were Marvin Arrants and Dr. James A. Horton of Okeechobee City and Norman Stebner of Brighton. The combined committee immediately launched a three county program to provide new boat ramps, picnic areas, and campsites. The Governing Board endorsed their efforts shortly after the first of the year.

The Osceola County Recreational Development Committee, headed by Board Chairman Miles, had five major outdoor recreation plans in the works by February 1964. By June 1964, 37 recreation sites were open to the public, and 45 more were planned. At the start of 1966, the District had six recreation committees representing 11 counties.

When the Board began to push for public recreation, Tom Cunningham was employed by the FCD as the director of both personnel and recreation. As the recreation development program got going, in October 1963, the District hired a full-time recreation director -- John H. Stretch. Stretch, 40, was an Air Force veteran, a graduate of the University of Missouri, a sportsman, and an insurance executive in West Palm Beach, Florida since 1957.

Stretch and District pilot John Zimmerman were killed in the 1970 crash of the District's twin-engine Cessna. The accident occurred on a sunny afternoon, in an area of orange groves west of Fort Pierce. The National Transportation and Safety Board investigated. An unexplained fire may have caused the crash.

Three recreation concessions were opened in the 1960s in the Everglades of South Florida, providing access to Water Conservation Areas 1, 2 and 3. The first was the Loxahatchee Recreation Area, a 55 acre site along the Hillsboro Canal, near the Palm Beach-Broward County line, at the junction of WCA 1 and WCA 2. Horner, the District and the recreation committee wanted this to be a first class recreational concession. Since the District could not spend money on recreation, a cooperative venture was put together.

The U.S. Fish and Wildlife Service provided a dragline and bulldozers; the FCD provided spoil to fill the \$250,000 recreation site; the State Road Department provided dump trucks. The Florida Game and Fresh Water Fish Commission (GFC) supplied fuel and paid equipment operators' salaries; and Palm Beach and Broward County Commissions agreed to maintain and improve the access road leading into the site from State Road 7 (U.S. 441). GFC operators used the Federal dragline to load the FCD spoil into the State Road Department dump trucks, and Federal bulldozers pushed the fill into place and graded the site.

The Fish and Wildlife Service advertised the concession in post offices and awarded a lease to Joseph Reese of Fort Lauderdale. Reese built a 5,000 square foot lodge of wood and natural stone and started operating under a

contract with the Service, the GFC and the FCD. Reese started renting boats and motors, selling bait and tackle, with District permission, even before site preparations were completed. The FCD and the state and federal wildlife agencies required free parking, free boat launching, free rest rooms, free drinking water and free picnic facilities for the public at this and other future locations.

Two full service recreation sites, each representing an investment of more than \$200,000, were opened in Water Conservation Areas 2 and 3 in the first half of 1966. Everglades Holiday Park was dedicated January 23, 1966, by State Attorney General Earl Faircloth. The park gives access to 914 square mile WCA-3. Sawgrass Recreation Park was dedicated by Governor Haydon Burns on April 3, 1966. The facility permits access to 210 square mile WCA 2.

Federal, state and private capital were used to develop Sawgrass Park. Accelerated Public Works (APW) funds from the Federal government were administered by the Florida GFC. State funds were provided by the Florida Outdoor Recreational Development Council (State Cabinet). This cooperative funding effort made it possible to prepare the initial, five-acre site. Additional APW funds were "matched" by the concessionaire for development, including the main building, boat docks, ramps, picnic and camping areas, and parking space.

The GFC leases and maintains WCAs 2 and 3 from the FCD, as the Everglades Wildlife Management Area. Sawgrass Camp was engineered and planned by the FCD which also provided free fill for initial development. A corporation headed by Charles (Bud) McGee of Fort Lauderdale bid \$158,000 to earn a long term lease with the Game Commission but expended more capital than required to develop the area. Approximately \$40,000 in state and Federal matching funds, and additional Federal money, placed the total investment at \$250,000. Sawgrass Park was the third full service recreation site to be developed in the Everglades WCAs.

Both Everglades and Sawgrass Parks offer boat and motor sales and rentals, guide services, overnight camping, airboat rides, fishing and hunting equipment, food and refreshments.

THE 1960s -- A DECADE OF BUILDING

Construction of the Federal-State Project was a hallmark of the 1960s. By 1961, work was underway on contracts totalling \$26,652,000 -- a new peak in the history of the District. Nine canals, 10 levees, four pumping stations, 27 spillways and dams were being built. From February through June 1962, more than \$18 million in new contracts were awarded by the Corps. Principal items of construction in Fiscal 1961-62 included: more and bigger dikes around Lake Okeechobee; Caloosahatchee River improvements between the Gulf of Mexico and Lake Okeechobee; and dredging of the Kissimmee River north of Lake

Okeechobee. Other major construction included dike-building and construction of spillways in and around WCA-3 in Dade and Broward Counties. Canals in the Upper Kissimmee Valley and new coastal canals in Dade, Broward, Martin and St. Lucie Counties were built. New dikes and three pumping stations on the northwest shore of Lake Okeechobee, and the District's second largest pumping station, S-8, were completed.

By the beginning of Fiscal 1961-62, construction had begun on improvements to the Caloosahatchee River; with three contracts totalling \$7.8 million. They involved widening and deepening the river for 14 miles and construction of a large spillway-and-lock structure about 10 miles upstream from Fort Myers. Projected costs for all the proposed Caloosahatchee improvements were then estimated to be \$42 million. Once completed, the channel would serve a basin area of 1,200 square miles, in three counties. It would also provide a much improved western outlet for Lake Okeechobee. The FCD provided land, easements and rights of way, but the Corps would retain permanent jurisdiction over the river as a Federal waterway.

The first three contracts to widen and deepen the Kissimmee River were awarded in March, April and June of 1962. They totalled \$6.5 million. The largest contract was \$4.1 million. It called for widening and deepening 9.5 miles of the river, from the lake north to the first of six lock-and-spillway structures to be built on the new channel. During the 1960s, the Kissimmee would be transformed from a shallow meandering river to a 58 mile waterway that would be 30 feet deep and about 300 feet wide, running between Lake Okeechobee and Lake Kissimmee.

Contracts for the first two spillways, awarded in early 1962, were for \$1.2 and \$1.1 million. At that time, the total estimated cost of the Kissimmee River program was \$29 million. This new channel would serve a drainage area of 758 square miles, and provide an outlet for excess water from the Upper Kissimmee Valley. The navigation locks were 30 by 90 feet in size, and deep enough to pass boats of 6 foot draft from Lake Okeechobee to the City of Kissimmee. FCD Chairman Riley Miles said he was pleased to play a key role in persuading the Corps to start work in the Upper Kissimmee Chain of Lakes at the same time as the Kissimmee River, rather than wait to complete the river before starting in the Upper Basin, because then citizens in the Upper Kissimmee could realize benefits much sooner from the Project.

Work also continued on the Herbert Hoover Dike. In Fiscal 1962, 28 miles of new levees between the Kissimmee River and Fisheating Creek, north of Moore Haven, were completed. These dikes, plus 20 miles of smaller, interceptor levees, upland of the lakeshore levee, cost \$2.5 million. With their construction, the program to encircle the lake with dikes was about two-thirds completed. Still under construction in 1962 were three pumping stations on the northwest shore, S-127, S-129 and S-131. These stations were built to pump excess water from behind the levees in Glades County into the lake. They cost

\$1.5 million. Two of the pumping stations were equipped with boat locks to permit access to the lake.

By June 30, 1962, the FCD managed 553 miles of levees, 650 miles of canals, eight pumping stations and more than 60 major spillways and dams, plus several hundred secondary water control structures. The number of employees in FCD operations and maintenance increased from 86 to 100 during Fiscal 1962. At this time, the Corps operated six hurricane gates around Lake Okeechobee, spillways between WCA 1, 2 and 3, and three lock-and-spillway structures on the Federal waterway between Fort Myers and Stuart. While the District pumps water into the lake and the Conservation Areas for storage, the Corps ordered water releases from those reservoirs when they rose above maximum regulation stages.

IMPORTANCE OF WCAs STRESSED DURING DEDICATION CEREMONY

On December 15, 1962, the District formally dedicated Water Conservation Area 3. The ceremony took place on Levee 29, at one of the new S-12 structures which releases water into Everglades National Park. Platform guests included J. Bruce Vining, FCD Board member; Col. H.R. Parfitt, District Engineer, Corps of Engineers, from Jacksonville; Riley S. Miles, FCD Chairman; Tom Adams, Secretary of State, who gave the Dedication Address; Ed Dail, FCD Executive Director; Buffalo Tiger, the Indian leader, and Warren Hamilton, Everglades National Park Superintendent. Superintendent Hamilton christened the structure by breaking a bottle of Lake Okeechobee water on it.

Guests and speakers were seated on a truck lowboy decorated by District field station employees, and equipped with about 20 chairs, a speaker's stand and microphone. Some worried that there would be more people on the platform than in the audience, especially since it was only 10 days before Christmas. About 15 loyal District employees attended the ceremony. But the Florida Highway Patrol saved the day. At the start of the ceremony, the FHP stopped all traffic on the Tamiami Trail (U.S. 41), which crosses the S-12 structures, so cars would not be whizzing by a few feet away while speakers were talking. Many of those who were stopped got out of their cars and joined the audience, swelling its ranks.

Zeb Grant, Director of Operations and Maintenance for the FCD, examined the S-12 superstructure and said, admiringly, "Look at the finish on this concrete. It's beautiful. When the Corps builds a structure for itself, it builds the best quality possible."

During the dedication, it was noted that WCA 3, with 914 square miles of Everglades wilderness in two counties, was one of the world's largest man-made water storage areas. More than \$17 million was spent on perimeter works to enclose the area. "More than 40 miles of new dikes were finished under construction contracts for nearly \$5 million in 1962 alone. Those works

included: a 20 mile long levee designated L-29 along the Tamiami Trail, which forms the southern boundary of the Conservation Area; a series of spillways (designated S-12) which permit discharge of water through L-29 into Everglades National Park; and an interior levee (L-67A), which divides Conservation Area 3 into two pools. The Tamiami Trail was relocated on top of a portion of the new dike L-29.

Fresh water stored in the Conservation Area can be used, via underground seepage and surface canal systems to replenish supplies to wellfields, homes, industries, and farms throughout Dade and Broward Counties. The Biscayne Aquifer, the principal source of fresh water for Dade County, is replenished from WCA 3.

The Conservation Areas can also provide flood protection because the dikes around the perimeter work to prevent uncontrolled flow of water overland from the Glades toward the coast. In the past, overland flow from the west had inundated metropolitan areas. During 1947 for example, the year before the Flood Control Project was authorized by Congress, more than 298 square miles in the greater Miami area were inundated. Floodwaters of up to four feet were experienced in a large portion of this area, and in some areas those flood waters lingered for several months. Damage in 1947 ran to \$9,618,000 in the greater Miami area. Further north, large portions of Broward County were also under water that year, including downtown Fort Lauderdale. By contrast, in 1960 alone, works of the Flood Control District prevented more than \$12 million in flood damages in Dade County, and almost \$7 million in flood damages in Broward.

THE 1960s - A DECADE OF CONTROVERSY

Controversy abounded in the 1960s. Special interests were vocal in their criticisms and demands. St. Lucie Canal discharges were criticized, for causing damage to the estuary. Some critics called for a third outlet from Lake Okeechobee. Critics of the FCD's taxation were numerous; the FCD proposed equalization as an answer to critics.

Many controversies were born of concerns for Everglades National Park (ENP). Some critics demanded a guaranteed water supply for the Park (ENP) -- to alleviate muck fires blamed on overdrainage in dry times. In wet times, drowning deer were blamed on "man-made floods" created in the Park to alleviate coastal flooding. Critics also said "pulling the plug" on C-111 would destroy ENP.

A number of critics representing other special interests said the FCD helped farmers / agriculture before others. Dade County area interests wanted more FCD tax dollars spent in Dade, less upstate.

The proposed Dade Jetport was successfully opposed by Bob Padrick and the FCD. Oil exploration in the WCAs and Alligator Alley crossing WCA 3 were unsuccessfully opposed by the FCD. The Sunniland oil pipeline in WCA 3 and Alligator Alley both eventually were completed.

Proposals for rock mining and developments in the WCAs were successfully rejected by the FCD. Rock mining in Lake Okeechobee was fought in court by the FCD.

The FCD sought the removal of camps and cabins on islands in the WCAs, and opposed artificial "deer islands" in the WCAs. Lake Okeechobee water quality was an issue in the 1960s, and remains an area of controversy today. Questions asked then and now revolve around the effect of inflows and pollution on the lake's water quality.

ST. LUCIE DISCHARGES -- A HISTORIC PERSPECTIVE

Opposition to large discharges of fresh water from the St. Lucie Canal into the St. Lucie estuary continued throughout the 1950s, 1960s and thereafter. Many people in the Stuart area said, correctly, that large freshwater discharges were damaging the estuary. Critics called for a third outlet for Lake Okeechobee. Some suggested a mile-wide floodway -- to convey excess water south from the lake. Bill Storch, Chief Engineer for the FCD, said: "A mile-wide floodway would be very inefficient, unless it were kept mowed like a lawn." After the Caloosahatchee River was enlarged and more freshwater could be released to the west as well as the east, calls for a third outlet subsided. Still, the St. Lucie criticisms continued. The Corps dictates releases through the St. Lucie and Caloosahatchee, and the Corps was the main target of criticism, but the District got tarred with the same brush. However, the St. Lucie estuary would benefit from higher lake regulation stages and new policies about releases in the 1970s and 1980s.

The St. Lucie Canal dates back to 1913, when the Florida Everglades Engineering Commission, headed by Isham Randolph, entered into an agreement with the Board of Commissioners of the Everglades Drainage District and the Trustees of the Internal Improvement Fund to make a detailed study of Everglades drainage. The Commission established headquarters in Miami on May 3 and rendered its report on October 25, 1913, subsequently published as U.S. Senate Document No. 379, 63rd Congress, 2d Session. The report recommended a canal following the shortest practicable route from the Lake to the ocean. It concluded that such a canal could drain extraneous flood waters from the lake to the ocean -- reducing Everglades drainage requirements by carrying off rain falling directly on the Glades.

The St. Lucie Canal (C-44) was constructed in the early 1920s by the Everglades Drainage District. The Corps of Engineers took over its operation and maintenance in 1930 as part of a Federal navigation project (Okeechobee

Waterway). In 1948, C-44 was incorporated by the Corps as a component of the Central and Southern Florida (C and SF) Project. The Corps operates and maintains the St. Lucie Canal and associated water control structures. Spillways were constructed in 1935 at 16 inflow points along C-44, to prevent sediment from entering the canal. Prior to construction in the 1970s of the Port Mayaca Lock and Dam (S-308), on the east side of Lake Okeechobee, water levels were the same in the lake and the canal -- all the way east to S-80, the St. Lucie Lock and Dam, near Stuart. Thus, if the lake stage were 15 feet (MSL), the stage at S-80 would also be 15 feet-- causing large volumes of water to be released once the lock was opened.

SETTING A FAIR AND EQUITABLE TAX RATE DIFFICULT

A new method of taxation -- designed to spread the cost of the District's operations more fairly among counties, without increasing the total amount of money collected -- was approved by the Governing Board in early 1963. This plan was presented to the 1963 Legislature, but was defeated by the efforts of the Dade County delegation. Staff studies had been underway for more than 18 months, in response to public criticism and newspaper editorials attacking the District's uniform ad valorem tax. FCD Senior Planning Engineer Jim Clawson headed the studies, which included analyses of taxation based on benefits, and taxation based on construction costs. Some of these methods of possible taxation produced wildly fluctuating millages. The recommended plan would have established a uniform tax against uniform property values by using the State Railroad Assessment Board property values, rather than valuations by individual counties -- which had assessment rates ranging from 39 to 100 percent of fair market value. At that time, Dade County properties were assessed at 47.27 percent of market value. Under the District's proposal, after the revenue due from an individual county was computed in the uniform method, the dollar figure would be translated into a specific millage for that county.

If this system had been in effect in 1961, millages throughout the 18 counties would have ranged from .53 to 1.36, the District's studies showed. If the proposed taxing change had been made, owners of property of equal value would pay the same tax bill regardless of the county they lived in. Differences in county assessment levels made that impossible under the existing system of levying the same millage rate in every county. The Board's decision in favor of the tax equalization plan passed by a 4 to 1 vote. The dissenting vote was cast by J. Bruce Vining of Miami, who argued that Dade County's taxes would have been increased by \$460,000 in 1961 if the proposed method had been adopted.

District taxation was one of the main topics discussed in Miami on July 15, 1964, at a meeting of the Water Resources Control Council, Miami-Dade Chamber of Commerce. Turner Wallis said, "Everyone is aware of the recent court action ordering a revaluation in Dade County. The FCD's 1 mill levy would have greatly increased our taxes. The FCD Board at its most recent meeting

(July 10) took cognizance of this -- that the 1 mill levy would produce far more than the dollars already budgeted. Therefore the FCD Board plans a special meeting, tentatively set for July 24th, to take action on reducing the millage." Wallis said the FCD budget would remain fixed but the millage would be reduced; the net result would still be an increase in Dade's taxes of a million dollars. He mentioned the different levels of assessment in the 18 counties of the District and said the FCD had proposed a formula to correct this inequity during the last legislature; but the District failed to take into consideration another great inequity, taxation in accordance with benefits of the Project. Because of this, Dade County opposed the FCD proposal. Wallis added that if the Dade revaluation resulted in 100% valuation statewide, an equalizing formula would not be needed.

State Representative Leo Furlong, after noting that St. Johns County had adopted 100% valuation voluntarily, made a motion which was carried unanimously by the Miami-Dade Chamber of Commerce Water Resources Control Council -- to petition the FCD to institute court proceedings in each of the 18 counties of the District to equalize assessments at 100 percent of just value.

This approach, Wallis predicted, would get results more quickly and expeditiously than with the RAB. He added that the Southwest Florida Water Management District had been "hamstrung" with the RAB formula. "I think the FCD deserves credit for levying the maximum tax permitted by law in order to bring in the maximum dollars to accelerate the construction program... But it is now to their credit that they are reducing the millage... The biggest thing wrong with the Flood Control Project has been inadequate financing, federal, state and local." Crawford agreed with Wallis' strategy. "It takes the monkey off the legislators' backs if the courts do it (created 100% assessment)," he said. Crawford added that the District was planning construction of \$3.5 million in works in Dade County. Ed Keys, Secretary to the Council, said Dade should appeal to the District to accelerate either construction or right-of-way acquisition in Dade County. Crawford said if the FCD went to a levy of .75 of one mill, based on an assessed valuation of \$5,670,000,000, Dade County would pay \$4,252,500; the prior year the county paid \$2,302,620, based on an assessed valuation of \$5,670,000,00.

The tax millage for 1964 was cut 25 percent by the Governing Board, as predicted, at a meeting in Dade County on July 24, 1964. This would benefit the 2 million residents then living in central and southern Florida. FCD Chairman Miles called the Board into emergency session to consider the tax cut before July 28, when the District had to certify its 1964 levy to tax collectors in the 18 counties. Miles said the levy -- set in May at 1 mill per dollar of county property assessments -- was reduced to .75 of a mill to give relief to Dade County taxpayers whose property values had risen to \$3 billion in July, per order of the State Supreme Court.

Taxpayers in 17 counties would get reductions for the year estimated at \$1.3 million, according to Executive Director Ed Dail. Dade County property owners would pay about \$1.3 million more than they would have if there had been no reassessment. But the swift reduction of FCD millage offset the increase, so that Dade taxpayers would pay about \$1.3 million less than they would have paid under the 1 mill levy. The Board indicated hope the Dade situation may lead to 100 percent county property assessments statewide. This would not only equalize District taxes but might result in a better educational system in Florida by broadening the tax base, Miles said.

Subsequently, the Dade County delegation introduced a bill in the Legislature to equalize taxes, just as the FCD had done earlier. However this time, other counties defeated the Dade bill. The wheel had come full circle. But the FCD never had to go to court to try to force equalization in all counties; counties raised their own property values on court orders, and the tax situation corrected itself.

FCD GOVERNING BOARD -- 1962 to 1965

William R. Scott, an attorney from Stuart, joined the Governing Board in 1962, and served until 1965. Scott replaced Curtis R. Barnes of Titusville, who served from 1960 to 1962. Robert L. Searle of Coral Gables, an insurance executive and former Mayor of Coral Gables, joined the Board in 1963, and served for nine years, until 1969. Searle replaced J. Bruce Vining of Miami. Board members who had been appointed earlier, and served in Fiscal Years 1963 and 1964 with Scott and Searle included: Chairman Riley Miles of Kissimmee; Vice Chairman Jack Horner of Palm Beach; and Stan Koller of Melbourne.

The massive program to enlarge the Herbert Hoover Dike and complete the encirclement of Lake Okeechobee reached a milestone in 1963. Three pumping stations (S-127, S-129 and S-131), had been substantially completed, along with two boat locks and about 50 miles of levees and related works. More than 400 persons witnessed the dedication ceremony for these works in March of that year. U.S. Senator Spessard Holland officiated at the ceremony on the northwest shore of Lake Okeechobee. The legendary Billy Bowlegs was present, observing from his seat in a Land Rover. Young Chief Osceola of the Seminole Tribe was on the platform, dressed in splendid regalia. After the ceremonies, there was a fish-fry on the site, put on by Leland Pearce, developer of Buckhead Ridge, a residential community, and his friends. About 1,000 pounds of catfish were cooked and served. Someone asked Senator Holland if he wanted to go to the head of the line or have a plate of food brought to him. Holland refused special treatment, and said he wanted to stand in line with everybody else. The line moved slowly, past parked cars in the open field, under cabbage palms, finally to the serving tables. The senator served himself some catfish, sat down at a picnic table, and ate with the Indians.

Later that year, in October, a new navigation lock and water control structure (S-61) on the Southport Canal, at the south end of Lake Tohopekaliga in Osceola County was dedicated. It was named after former Board member Clarence L. Thacker of Kissimmee, who died in office in 1958 at age 40. Florida Secretary of State Tom Adams, the principal speaker, said that completion of this first lock-and-spillway on the waterway between Lake Toho and Lake Okeechobee marked a beginning rather than the end of the \$35 million flood control system under construction in the five-county Kissimmee Basin.

A contract to operate the new Clarence Thacker Lock and Control Structure was awarded in January 1964 by the District, to Lawrence Tomlinson of Kissimmee. Tomlinson started work on February 1st, at a salary of \$526 per month. He also was given a three bedroom CBS home to live in at the lock site. Tomlinson was required to operate the 30 by 90 foot lock seven days a week, from 7 a.m. to 6 p.m. on weekdays, and longer hours on weekends. The operations contract would save the FCD several thousand dollars per year because it would not have to be manned by FCD employees.

Similar contracts were negotiated for six other lock and spillway structures on the Kissimmee River. Five of the six were under construction by February 1964. When completed, boats with a six foot draft were able to navigate from Lake Okeechobee to the City of Kissimmee -- 97 miles, passing through the seven locks en route.

Just before Christmas 1963, the Army Corps of Engineers presented a 98-page outline for a proposed flood control system for Southwest Dade County to the FCD which included a \$9 million system of levees, canals, pumping stations, and water control structures to serve 193 square miles south of the Tamiami Trail (U.S. Highway 41), just east of Everglades National Park. The Corps predicted this system would return \$4 in benefits for every dollar invested. Local interests were asked to pay 46% of the cost of construction. This unusually high cost-sharing ratio (the average for other projects was about 18%) was based on Corps predictions that the lion's share of the benefits in Southwest Dade would be to land enhancement. Only 9.6 % of the expected benefits of the project would represent flood damage prevention. Comments from the District were to be forthcoming in February.

In 1964, Palm Beach County and the FCD jointly developed a new recreation site at Twenty Mile Bend, on the West Palm Beach Canal. The District filled the existing boat launching area, raised its elevation to 19 feet (MSL) and reshaped the access ramp over the levee (at the north end of WCA 1). The county constructed the double-size boat ramp. The 17 foot long ramp, equipped with dock-type catwalks, would permit launching of two boats simultaneously. The county also paved the one-mile road leading into the site from U.S. 441, and the approach ramp over the dike into the boat launching area. This site gave boaters access to the 55-mile perimeter canal surrounding WCA 1.

By June 30, 1964, the Governing Board had accepted five levees, six canals, four spillways and dams, a pumping station and a navigation lock from the Corps for permanent operation and maintenance. With these additions, the FCD became responsible for a network that included 1,400 miles of canals and levees, 11 pumping stations, more than 75 major spillways and dams, and several hundred secondary water control structures. The number of employees required to care for these works increased from 112 to 137 during that year. More than 50% of all District employees were involved in Operations and Maintenance.

MANATEE / AQUATIC WEED CONTROL STUDY

A three year study of manatees (sea cows) and their usefulness in controlling aquatic weeds was launched by the District in 1964. After nearly two years of preliminary research by FCD staff, a \$34,000 study contract was awarded to Florida Atlantic University. The purpose of the study was to determine the quantity of aquatic weeds manatees could / would eat, and the manatee's rate of reproduction -- to find out if the animals could practically and economically be used to control aquatic weeds.

The FCD had first learned about the manatee's appetite for aquatic weeds in a December 19, 1960 "Time" magazine news item. The article cited a November 1960 report in the British magazine "Nature" on experiments conducted by W.H.L. Allsop in British Guiana. In 1962, FCD representatives contacted Allsop at Georgetown, British Guiana. Allsop responded from Lome', Togo -- on United Nations Technical Assistance Board, Special Fund letterhead. Allsop said manatees would definitely eat the kind of weeds found in south Florida waters, and suggested contacting Professor A.D. Hasler, at the University of Wisconsin. Allsop also sent a diagram of the pipe-and-canvas tank he used to transport manatees in British Guiana. The FCD did contact Hasler in Wisconsin, as well as Dr. A. F. (Archie) Carr at the University of Florida and other authorities.

The Miami Seaquarium was hired to capture manatees for the study. Over several weeks the mammals were sought in the Intracoastal Waterway and in coastal canals. Five were eventually captured in the Miami River, and transferred to a canal near Fort Lauderdale. On May 7, 1964, the manatees were released into a specially fenced half-mile reach fairly heavily infested with submerged weeds, primarily southern naiad and elodea.

The largest manatee was a female measuring 11 feet 4 inches long, and weighing 2,170 pounds. The smallest participant was another female, 7 feet 2 inches, weighing 337 pounds. Of the five captured manatees placed in the study area, four were females and one male. It was hoped an additional male could be obtained.

The study was directed by Dr. Peter Sguros, a biologist at FAU. The Interior Department in Washington had recently listed manatees as one of the North American animals likely threatened to extinction. The FCD hoped the study might help to preserve the mammals as well as alleviate aquatic weed problems.

Early in the summer of 1964, "The Saturday Evening Post" ran a major feature story on this FCD project, titled "CAN THE MANATEE SAVE FLORIDA?" The story's author, Lewis Lapham (who would later become editor of "Harper's" magazine), came to South Florida and spent several days on board the trawler "Seaquarium" on the manatee netting expedition.

"The manatee is a gentle creature, guileless and overgrown with moss. In the olden time, a manatee could drowse safely in the rivers and canals of southern Florida, drifting with the tide and eating flowers. So fat and so lazy did the greedier manatees become that they ceased to notice which way the tide washed them. Sooner or later, of course, the easy life had to end.

"The Government caught up with them last April, in a muddy backwater near the Miami airport. There, floating among lily pads, five unsuspecting manatees blundered into heavy nets, betrayed by their passion for water hyacinths. Their capture had been ordered by the Central and Southern Florida Flood Control District, a state agency that hopes to put them to work eating weeds in drainage canals. If the first five manatees cooperate and eat the weeds they are assigned, the district intends to corral all the other manatees in Florida, probably no more than a few hundred, and employ them at the same task.

"The gentlemen who run the district's affairs are sober and serious-minded citizens, fully aware of the ludicrous aspects of their scheme. So costly is their trouble with weeds, however, that they no longer worry about keeping up conventional appearances. 'I've gotten to the point, my friend, where nothing seems ridiculous'" said District Vice-Chairman Robert R. (Jack) Horner, who first suggested the 'manatee solution'.

"The weeds, both floating and submerged, block the flow of water in the 1,500 miles of canal under the district's supervision, thus making it impossible to regulate the water levels accurately. (The canals drain off the heavy summer rains and furnish a safeguard against floods.) As the cost of removing weeds increased (\$130,000 in 1963; estimated to reach \$500,000 in 1968), Horner gladly listened to anybody with an idea."

Dr. Sgueros, the study supervisor published his findings in 1966, in a "Research Report and Extension Proposal ... to the Central and Southern Florida Flood Control Board on the Use of the Florida Manatee as an Agent for the Suppression of Aquatic and Bankweed Growth in Essential Inland Waterways," by Florida Atlantic University, Department of Biological Sciences. His conclusions:

"The manatee has no peer, based on current knowledge, as an innocuous, rapid, economical and otherwise feasible means of controlling the spread and eliminating the existence of obnoxious aquatic weeds in essential inland waterways."

Sgueros said the success of using the manatee as a weed controlling agent would be contingent upon the continued accumulation of an orderly, accessible body of knowledge concerning its procreativity and pathology -- to allow the development and promulgation of proper husbandry procedures.

Sgueros submitted a proposal to the Board asking for an additional \$129,363 over three years to develop a successful manatee program. But the FCD Governing Board declined his proposal, and suggested he pursue funding from other sources for the continued study. It was clear to the FCD from Sgueros' and other studies that the use of manatees would be limited to larger, deeper waterways, because the mammals are too big for small ditches. Sgueros was invited to return to the Board with another proposal if he wished.

Dr. Sgueros got the Minister of Agriculture from Pakistan, Shams ud Doha, interested enough in manatees that he flew to the U.S. and toured the District. But the professor never did return to the Board with a new proposal. His report remains in the file.

The FCD was not the only agency whose interest was piqued by the possibility of using manatees as a "natural aquatic weed control." Board members visited the Panama Canal Zone and went to see six manatees that were penned in, with submarine netting, in a six acre jungle lagoon, off the Chagras River by the Panama Canal Company in an experiment similar to the FCD's. Ed Dail helped to arrange the trip, where transportation for the Board was paid by the Panamanian airline (Aerovias Panama -- APA) -- apparently hoping some of the worldwide publicity the District had received for its manatee studies might help the airline.

1965 BRINGS TWO NEW MEMBERS TO THE FCD BOARD

In his first year in office, Governor Haydon Burns appointed two new FCD Governing Board members; T.R. (Tommy) Tomlinson of Melbourne Beach and C.A. (Mutt) Thomas of Lake Harbor. Tomlinson succeeded Stan Koller, Thomas replaced R.R. "Jack" Horner of Palm Beach. Board Chairman Miles would begin his eighth year on the Board in 1965.

Tomlinson, a native of Williamsport, Pa., operated Tomlinson Space Realty Corp. on U.S. Highway 1 in Melbourne. In the Florida real estate business since 1960, he had been a sales director with General Development Corporation in Port Malabar, and was the director of the South Brevard Industrial Commission and a member of the Brevard County Industrial Development Board. Tomlinson, 45 when appointed, was active in civic affairs. He had served with various Chambers of Commerce, and headed the Brevard County Tuberculosis and Health Association. Tomlinson graduated from Lock Haven (Pa.) State College in 1940, and had also attended Pennsylvania State University. He served with the Air Corps from 1941 to 1946, and was discharged as a captain. Tomlinson was appointed in 1965 to serve a three year term.

Mutt Thomas had vivid and poignant memories relating to flood control — he'd lost most of his family in the 1928 hurricane which devastated the Lake Okeechobee area. Thomas, although very young, managed to survive the storm by clinging to a log which drifted to safety at daybreak. His father also survived, and restarted a family farm on Ritta Island. Thomas was President of South Bay Growers in 1947, and later became Chairman of the Bank of Belle Glade. He was also instrumental in forming the Belle Glade Sugar Cooperative. He also served as a member of the South Shore Drainage District.

THE DROUGHT YEARS 1961-65

By June 30, 1965, the need for and the usefulness of water conservation works within the FCD became more apparent. For four years, rainfall was well below average. Yet, despite the fact the Project was barely 50% completed, its dikes, reservoirs and dams did a remarkable job of tiding over most sectors of the economy and providing needed water supplies in dry months. In the Upper Kissimmee Basin, where principal lakes were reduced to mud puddles during droughts a few years earlier, the District's dams and spillways held water stages at or near desirable levels, even in the driest months.

Though water levels in Lake Okeechobee dropped below regulation, they never reached critically low levels. Farther south in the Everglades, water levels receded woefully in the three Water Conservation Areas managed by the District. State and federal wildlife officials however, to whom the District leases the WCAs, said that there were no serious threat to wildlife in that time. So, although South Florida had gone through an extreme drought, such as the Everglades has had periodically in the past, the District's facilities were

effective enough that the great muck fires of the '40s and '30s and of decades before did not occur in the Glades.

In January 1965, the Corps conducted three public hearings to obtain local comments on its new \$400,000 study of water supplies in central and southern Florida. More than 90 speakers testified at the hearings held in Miami, Clewiston and West Palm Beach. Farmers and city spokesmen were vociferous in stating their requirements and citing future needs. Conservationists demanded an assured water supply for Everglades National Park, as did the Park itself in a statement introduced at the hearings. Representatives of a number of interest groups, newly aware of the fragility of water supplies thanks to several dry years, became strong advocates of water conservation.

Near Fort Pierce, a controversy over a farmer's irrigation pump resulted in high powered rifle shots to disable and stop the pump. Although incidents like this were rare, they illustrated the extremes to which some people would go in disputes over water. The 1964 destruction of an emergency sandbag dam, installed at the northern end of Lake Washington to conserve water supplies for Melbourne and Eau Gallie, had already shown how seriously the "right to water" could be taken. As far back as 1963, recreation and wildlife groups had asked the District to revise its water allocation policies -- so that after human consumption needs were met, all remaining supplies would be divided equally between agriculture and wildlife.

Stories of drought and its impact on Everglades National Park were carried nationally by wire services. In some, the FCD was accused of cutting off water supplies to the Park. The accusation was ironic, because one of the District's basic goals over the years had been to provide more water for the Glades. Most writers seemed to be unaware of or have lost sight of the fact that the Everglades were born of recurring cycles of flood and drought, and that the Park had experienced droughts as bad, or worse, in earlier years.

THE SPOTLIGHT SHIFTS TO WATER SUPPLY NEEDS

From 1965-66, the project and water managers were repeatedly criticized for the negative effects of drought and of flood on wildlife. In response to that criticism, Governor Burns in January 1966 announced a \$3 million plan to dig conveyance channels through WCA-3, to move water south to the National Park. Contracts for this work were promptly awarded, and the canal construction given high priority by the Corps of Engineers. A plan to help the Park by moving water south from Palm Beach County into WCA-3 and increase discharges into the Park when water was available at the Tamiami Trail spillways was adopted.

In August of 1965, the District conducted an experiment to see if water could be transferred from Lake Okeechobee, a distance of about 25 miles, without damage to the vast Everglades Agricultural Area in between. Four of the

biggest stations at the northern edge of the Conservation Areas were simultaneously "turned on" in a 108 hour test, and 10 billion gallons of water were pumped from the lake. It was found that the two most efficient stations for moving lake water south were S-7 and S-8, on the Palm Beach-Broward County line. Still, water moved from the lake to WCA-3 had another 40 miles to go to get to the Park. The Corps agreed to pay for pumping (up to 1,000 CFS) however -- if comparable amounts found their way to the Park. Plans were made to dig new conveyance channels through WCA-3 to help deliver this water to the Park, through WCA-3.

After Pumping Station 8 was shut down on April 15, as requested by the GFC to help fawning deer, the District ran a special study, taking readings placed at 13 markers in Area 3, to see the effect of the shutdown. It was learned after two weeks that pumping at S-8 pushes out a "mound" of water in a small area close to the pumping station. At a distance of six miles, the effect of the shutdown was not measurable. It was noted that under any circumstances at least 80% of the water in the Conservation Areas comes from rainfall directly on them, not from pumping or from overland flow.

Since the entire Flood Control Project is dependent on rainfall for its water supplies, the system had always operated under the premise that water supplies from any canal or given body of water would be subject to the "reasonable use" doctrine by various users. Based on this premise of "reasonable use," the FCD adopted a schedule of non-flood control releases of water to the National Park during fiscal 1965, recognizing the Park as a water user. Still, no one in the District could be guaranteed a given supply of water, and there was no provision in State law that such a guarantee should be given. In 1965, the Board formally notified the public that the right to withdraw water from District canals and reservoirs was not irrevocable, but subject to conditions and demand. This had always been District policy, but was restated to emphasize the point.

Despite rapid population growth since 1950, the FCD system had successfully held back saltwater intrusion in some areas, and in others had actually "pushed back" salt intrusion lines. Still, foreseeing continued growth, coastal communities were urged to adopt salinity ordinances.

Florida's largest spillway, dam and lock (S-79) was completed in 1965. It was named in honor of W.P. Franklin of Fort Myers, who was 94 in June 1964. He was one of the pioneers who met Herbert Hoover after the 1928 hurricane and helped obtain the President's support for the lakeshore dike built in the 1930s. He also supported the creation of the Flood Control Project in 1948. Located on the Caloosahatchee River near Fort Myers, the \$3.6 million structure helped assure a year-round supply of fresh water for Lee County. Before the structure was installed, the river had become salty and tidal as far upstream as Ortona, east of LaBelle. The Franklin Dam stretches 340 feet across the waterway, and is equipped with a navigation lock 400 by 56 feet.

The \$42 million program to widen and deepen the Caloosahatchee River was halfway completed by 1965. In testimony to Congress, the Corps reported that the Project was returning \$4.20 in benefits for every dollar invested. The Corps predicted that these benefits would total more than \$70 million per year when the Project is completed -- \$26.7 million per year in flood damage prevention plus \$43.2 million per year in increased land use. In the District's first 15 years, flood damages of more than \$84 million were prevented. With land enhancement benefits added, total benefits to date were reported to exceed \$200 million.

For the second straight year the District was forced to spend more than \$200,000 on aquatic weed control in 1965-66. Chemicals were sprayed on floating weeds like water hyacinths and water lettuce. Mechanical "plows" were used to uproot submerged weeds. It was predicted that, ultimately, the District may have to spend \$600,000 a year on weed control. The sea cow study was underway. A motion picture about the District's weed problems was made during the year, entitled "Marisa and the Mermaid." The 14-minute color movie won a coveted Golden Eagle award from the Council on International Nontheatrical Events (CINE). The picture was entered in the Padua (Italy) international film festival in November 1966. Released in January 1966, the film was viewed by an estimated eight million TV watchers in the U.S. by June, according to the Florida Development Commission, which was distributing prints. At civic club meetings and in classrooms, the film was shown to more than 7,000 persons between January and June 1966, most of them within the District.

BOB PADRICK --THE GUY IN THE WHITE HAT

On the heels of four very dry years, Governor Burns appointed Robert W. (Bob) Padrick, a prominent Fort Pierce businessman, to the Governing Board. Padrick succeeded W.R. Scott of Stuart, whose term expired. He was sworn in as a member of the Board on September 17, 1965. In addition to Padrick Chevrolet, his automobile agency, he had been involved in ranching, had major interests in the Fort Pierce Gas Company and held a four-county franchise for a rental car firm. A native of Jensen, Florida, he majored in business administration at the University of North Carolina, and later served with the U.S. Army in Germany in 1945-46. Padrick was also active in civic affairs; as president of the Fort Pierce Jaycees, the St. Lucie Chamber of Commerce, and the Rotary Club of Fort Pierce. He served on the Board initially with Chairman Riley Miles, Vice Chairman Robert Searle, T.R. Tomlinson and C.A. "Mutt" Thomas.

Padrick served 18 years on the Board, from 1965 until 1983 -- the longest term of any Board member in the 40 year history of the District. He was chairman from 1967-69 and in 1971-72.

Shortly after Padrick joined the Board, Mr. R.T. Fisher of the Boston Whaler company bought full-page national advertisements in outdoor magazines with the headline: "Take a Long Last Look at a Famous National Park or Wake Up the Army Engineers." Fisher attacked the Corps, and what he called its "civilian dragline bureaucracy" for cutting off water to Everglades National Park--referring to them as "guys in black hats." Padrick met with Fisher to explain the District's program, and pledged to help the Park. Shortly after that meeting, Fisher purchased new full page ads with the headline: "Florida Dons the Biggest White Hat" which praised Bob Padrick and the policies of the District. Padrick's fellow Board member Mutt Thomas bought white hats for all the FCD Board members; they had a picture taken on the District's front steps, all wearing white hats.

Years later, Padrick led opposition to a Dade County jetport site in Collier County which extended into WCA-3. They successfully halted the proposed project, and initiated a search for an alternate site. In 1969, Padrick received the Governor's Award as Conservationist of the Year, presented by the Florida Wildlife Federation. If Bob Padrick had a theme song, it might be titled: "Preserve the integrity of the Everglades," for he sounded that refrain a thousand and one times over the years.

FROM DROUGHT TO FLOOD

Florida's fickle weather pendulum swung from drought to flood as 1966 progressed.

In April 1966, the District shut down Pumping Station 8 to benefit fawning deer. Hurricane Alma skirted FCD boundaries in early June, and a tropical depression dumped heavy rains on Southeast Florida later the same month. By the end of the first six months of 1966, weather conditions mirrored those of 1947, when the great flood inundated more than five million acres. WCA-3 got 19 inches of rain, and the 914 square mile reservoir rose 18 inches, despite efforts to reduce water levels. Above normal winter rainfall, a wet spring, and a saturating June added up to the wettest 12 month period in five years in Southeast Florida.

Lake Okeechobee rose above regulation. Fresh water poured into the Park at a rate of almost 1.3 billion gallons a day in late June. Two of four spillway gates at the Tamiami Trail had been wide open since April 13; the other two since June 8. More than 34 inches of rain fell in South Florida in June, July and August 1966, and the National Park received more than 1,000,000 acre feet (325 billion gallons) during the year. Spillway gates in the Tamiami Trail were wide open from June until November 10. All-time rainfall records were shattered in southeastern Florida, but homes remained dry, and farmlands that would have been flooded remained in production. The District's works, now 50% completed, got their second major test: the first was in 1960 when flood damages of \$28 million were prevented.

Inez, an erratic hurricane which just couldn't make up her mind for about a week, finally scooted into Florida near Miami in early October of 1966, but caused little trouble. Inez did give birth to Biscayne Bay tides of up to six feet, which caused some salt water intrusion, as coastal structures were overtopped during the storm. Even so, swift FCD response had the salt water flushed out within two days. Farmlands and residential suburbs were unaffected by the high tides because the District had prepared for Inez by lowering canal stages.

Still, members of airboat and halftrack clubs criticized the District because water levels rose above regulation stages in WCA-3, the habitat of a large deer herd. Some suggested using spoil material from along the Miami Canal to create deer "islands." A total of 645 billion gallons of water, a new record, was pumped by the District in that year -- enough to supply West Palm Beach for 89 years at the city's then current consumption of 20 million gallons a day. The 11 big pumping stations were operated for 25,433 hours, and moved almost all the water into storage areas including Lake Okeechobee.

OTHER SIGNS OF THE TIMES

In 1966, the Governing Board approved installation of a six-inch underground pipeline in WCA-3 to transfer oil from Hendry and Collier County wellfields to Fort Lauderdale. A smaller four-inch line was being tested by Sunniland Pipeline Company of Fort Lauderdale. Oil spills had developed in the four inch line in the past, prompting the District to demand thorough tests on both lines, and repairs on the smaller line.

Everglades Parkway, later re-named Alligator Alley, also created a problem in WCA-3. Spoil from this project caused some backup of water while the District was trying to get more water to the National Park. The District informed the State Road Department of the problem, and spoil then was spaced to permit southward flow. The Parkway was about 70% completed in WCA-3 and Broward by June 30, 1966 and the toll road was expected to open in 1967.

Two television stations failed to gain approval to erect 2,000-foot TV towers in the Water Conservation Areas. Channel 5, Palm Beach, sought permission to build a tower in WCA-1, but was turned down by the U.S. Fish and Wildlife Service. Miami's Channel 4 wanted to build a tower in either WCA-2 or 3, but was refused permission by the Florida GFC. FCD policy had been to maintain the water conservation areas in a wilderness state as much as possible, permitting public use under controlled conditions. The District's Board had previously approved the television towers in a split vote, but only on condition that the other agencies followed suit. Conservation groups strongly opposed any and all commercial developments within the 1,345 square-mile water storage areas.

A tree planting program on the north side of the Caloosahatchee River launched by the District in 1964 to restore spoil areas and beautify District lands and rights of way paved the way for similar efforts. Nature was left to take its course --no attempt was made to care for or maintain the trees. Many of the trees failed to respond to these "all-natural" conditions, but Indian Rosewood, Earleaf Acacia, Woman's Tongue and Australian Pine took a good hold. Other species that lived but did not prosper were the Chinaberry Tree and native Mahogany. Tests of the soil in the planting area indicated the soil was sterile and had a very high chloride content.

By 1966 the FCD and the Forestry Service, encouraged by this first experiment, planted more than 10,000 seedlings in areas near LaBelle and Okeechobee. Unfortunately, those trees were planted at the start of a four month drought. Only 25% survived, but those that did were the hardiest.

SHOWCASING THE FCD'S WORK

Two District motion pictures, "Marisa and the Mermaid" and "Million Acre Playground," were broadcast on national TV between 1966 and 1967. They were seen by 113 million people, according to the Florida Development Commission, which distributed prints. "Marisa" is about aquatic weed control. "Million Acre Playground" is about public recreation in the District.

At Rockefeller Center in New York City, thousands of visitors to the Florida Showcase, in the RCA Building, viewed a prize winning District display in November 1966. The display depicted water management on a huge map of Central and Southern Florida with faithfully duplicated miniature canals, levees, control structures and conservation areas. Narration told the flood control story, as lights blinked on and off in sequence. The exhibit was designed to make it appear as if rain were falling on the map; after which canals and reservoirs filled with water; pumping stations moved the water into conservation areas, and fresh water flows to municipalities on Florida's coast. Other features of the display included "Claire," an 11-foot stuffed seacow/manatee, large color pictures showing flood and drought, aerial views of the Project, construction work, and scenes of recreation and wildlife.

An estimated one million persons pass through Rockefeller Center each month. Many of them probably saw the FCD's display, which faced the street on the ground floor. The Governing Board went to New York for this event, and an official at the New York facility told the Board the exhibit was "one of the finest" ever shown at the Florida Showcase.

NEW CONSTRUCTION COMPLETED IN 1966

By July of 1966 finishing touches to a new field station at Kissimmee were underway. The facility, with a staff of 10, was to open by early fall. Located on five acres purchased from the City of Kissimmee at the western edge of the

municipal airport, the station serves the Upper Kissimmee Basin, where a \$6 million water control program was planned. FCD Chairman Riley Miles said the \$44,000 annual payroll plus local purchases and services would add a total of \$100,000 annually to the local economy. At this time, four other field stations had been established in Palm Beach, Broward, Dade and Okeechobee Counties. Field stations in Homestead and Clewiston would soon be added to this service network. All stations are linked to District headquarters in West Palm Beach by radio.

After months of negotiations, an FCD permit was granted in November 1966 to allow Fort Myers and Lee County to withdraw fresh water from the Caloosahatchee River upstream of the dam (S-79) at Olga. Both city and county officials agreed to seek 1967 legislation extending District boundaries to include all areas to be supplied with water from the Caloosahatchee. A small section of Lee County and the north end of Fort Myers were already within the FCD. Most of Lee County relied on the District's works for drinking water.

By the end of FY 1966, the Corps reported an increase, from 4.2 to 4.4, in the C&SF Flood Control Project's cost-benefit ratio. This meant that the system was returning \$4.40 in benefits for every dollar invested to build it -- more than twice the return forecast in 1948, when Congress first authorized the federal project. At the same time, taxes were lowered for the second year in a row to .45 of a mill, and another tax cut was planned for 1966-67.

1967 -- DISTRICT & REGIONAL GROWTH ACCELERATES

1967 was a year of change. The Governing Board underwent important changes in July of this year. Bob Padrick, 40, was unanimously elected Chairman -- replacing Riley Miles, who had held that important position for the past seven years. Board members re-elected Bob Searle as Vice Chairman. C.A. "Mutt" Thomas was re-appointed for a second three-year term by Governor Claude Kirk. And a new Board member, Robert P. Blakeley of Plantation, was appointed by Governor Kirk.

Blakeley was the fourth man from Broward County appointed to serve on the Board. He was the secretary-treasurer of Plantation Farms, Inc., and had been associated with this agricultural group for 18 years. He was also president of the Old Plantation Water Control District, past president of the Plantation Chamber of Commerce, and a director of the Far-south Growers Cooperative Association and the Plantation First National Bank.

Riley Miles had served on the Board since 1958. Miles led the Board as Chairman from 1960 to 1967. A former Kissimmee mayor and Pontiac dealer, Miles had also been described as a family man, a church man, and an avid golfer. After leaving the Board in 1967, Miles helped to form the non-profit Water Users Association of Florida, serving as its Executive Director for many years. He died on July 13, 1987, at age 73.

In a feature story about his life in the Orlando Sentinel, Geoff Clark, Osceola County Editor, said the Kissimmee River Canal (C-38) was, "done in the 1960s, during much of Miles' tenure as Chairman of the old Central and Southern Florida Flood Control District. That project was to give Miles some of his greatest pleasure and his greatest aggravation. The aggravation showed in the late 1970s and early 1980s, when Miles was a spokesman for the Water Users Association of Florida, which was made up of agriculturists, business people, industrialists and sportsmen."

"What this environmental movement is doing to the private sector is unbelievable. God help the private sector," Miles was quoted as saying in a 1984 Orlando Sentinel article. Dan Autrey, a fellow city commissioner in the 1950s, characterized Miles as someone who very strongly believed in individual property rights. Clark, in his profile of Miles said, "He was intense, direct, competitive, conservative, fair and a bit quick tempered, although he didn't hold a grudge, friends and relatives say."

In 1967, for the first time in the District's history, construction was underway in all sections of the District. Work in the Upper St. Johns River Basin began this year, when contracts were let on the first phase of the \$55 million program. The program was scheduled to provide water for more than a million citizens in the basin -- enough water to meet their water needs well into the 21st century. By June 30, 1967, the District had acquired titles and easements to 99,337 acres of the 177,000 needed to complete the project. Chairman Riley Miles' message in the 1967 Annual Report said: "As the Project passed the 50% completion mark, it became more and more apparent that the District's role must change from flood control to that of overall water management."

In February 1967 the Governing Board, in a 3 to 1 vote, denied a request from Humble Oil and Refining Company to conduct seismic tests in the Water Conservation Areas. Humble Oil wanted to establish survey lines, northeast to southwest, through WCAs 1, 2 and 3, dig holes, and set off half-pound charges of dynamite and record vibrations. The drilling of wells was "implicit" in the request for the tests, and the District feared damage to the WCAs in the event oil were discovered. About a dozen representatives of conservation groups were prepared to speak out against such testing in the Everglades, but no comments were offered after the Board action. Several letters commending the decision were subsequently received. In the same vein, the Board in February denied another firm's request for access in Area 3 to drill a wildcat oil well.

Evidence of that changing role could be seen in the District's approach to managing water for those remaining wetlands in the District. About 263 billion gallons of water (861,000 acre feet) were released to Everglades National Park in Fiscal 1966-67. Programs to provide more efficient water deliveries through the WCAs had begun to be implemented. Those programs

included two new channels, from Pumping Station 7 to the Miami Canal to the S-12 spillways. A major seepage control levee which cut across WCA-3 was completed to curb seepage and provide more water to the Park.

The increasing breadth of the District's responsibilities was also evident in a number of other projects and programs. For example, a contract for the new Miami Canal, which would run parallel to the old canal and include a provision to level spoil banks to build islands where deer and other upland wildlife might find shelter and food in periods of high water, was executed this year. The growing size of the District -- on both its responsibilities and staff -- required the construction of a new annex to District headquarters on Evernia Street in 1967.

The District's public recreation program received a "shot in the arm" in 1967 with the passage of two bills by the Legislature. One authorized expenditure of 1/50th of a mill of ad valorem tax revenues for outdoor recreation. Another authorized the FCD to include public recreation as a purpose when instituting eminent domain proceedings for water storage lands. More than 100 recreation sites had been proposed, but development of those sites had been slow, due to lack of District funding.

Plans for major recreation sites in Okeechobee and Osceola Counties were accelerated in early 1967, and smaller public-use sites were opened in the Everglades and Lake Okeechobee region. Hog Island, a 78-acre tract west of Okeechobee City at the confluence of the Kissimmee River and Lake Okeechobee, was surveyed and plans were drawn for a full-service recreation area. Southport, a 28 acre tract at the south shore of Lake Toho was the second full-service area. It was purchased by the State to be operated as a county park beginning in 1967.

PADRICK TAKES LEADERSHIP REINS

In December of 1967, E. Davison Potter, a Melbourne businessman and former banker, was appointed to the Board by Governor Kirk. Potter replaced T.R. (Tommy) Tomlinson, a Melbourne realtor. Before coming to Florida, Potter had been president of City Bank and Trust Company in Jackson, Michigan. He had also been vice president, and in 1959-60 president of the Michigan Bankers Association, and had served on the executive committee of the American Bankers Association. Since moving to Florida, Potter became president of the National Bank of Melbourne and Trust Company. He was also active in civic organizations like the Chamber of Commerce, Rotary Club and United Fund.

Board members in fiscal 1967-68 were: Chairman Bob Padrick, Vice Chairman Robert Searle, C.A. "Mutt" Thomas, Robert Blakeley and Potter.

"Our District is committed to a policy of total water management," Chairman Padrick said. "We must provide for the needs of all. We must provide for the needs of city dwellers, farmers, wildlife and Everglades National Park." Padrick stressed "the future and the role the FCD must take to insure the protection of our historic natural resources."

In the District's Annual Report for 1968, Padrick said:

"The population of the FCD has tripled since the District was created in 1949 and a conservative estimate indicates that by 1985 it will double again. At that time it has been projected the 18 counties forming the District will have a population in excess of five million people. By the turn of the century we can expect a population of ten million persons in Dade, Broward and Palm Beach Counties.

"This population can only become a reality with proper water control methods, and it will be the duty of the FCD to insure this. During the past year we faced many threats to our conservation areas, and we must be alert to combat these threats in the future. Some of the problems we faced included oil well exploitation, limestone rock mining and television towers that would have destroyed some of our storage lands. Problems we constantly face, and these will surely increase in the future, include real and potential threats from all types of water pollution; from siltation; pesticides, fertilizers in our waterways; from unwise dredging, filling and bulkheading along coastal areas; from salt water intrusion from the ocean; beach erosion; illegal poaching of alligators, to a point where these unique reptiles are threatened with possible extinction; introduction of exotic plants and wildlife from foreign lands, which could upset our native ecology, and construction of additional ocean outfall systems, which could damage valuable marine life along our coastal shelf."

"Freddy the Friendly FCD Alligator," still in use more than 20 years later, was adopted by the District as its new symbol in fiscal year 1967-68, to show the District's dedication to conservation principles. Within six months of his emergence from the drawing board, Freddy began to be recognized as a friendly face that identified the District as one of the most active agencies in the state in promoting conservation and water purity.

Freddy originated with Executive Director Ed Dail, who liked "Smokey the Bear," the symbol of the U.S. Forest Service and said he wished the District had something like that. Larry Nunn of the public information staff created "Freddy."

LEGISLATIVE SUBCOMMITTEE TOURS REGION

On May 17, 1968, Padrick addressed the Legislative Council Subcommittee on Fresh Water Management at a banquet at the Clewiston Inn. Rep. Ted Randell, subcommittee chairman, said the purpose of the meeting and tour (the next day) would be to examine first-hand the water resources of the Lake Okeechobee region. The Water Users Association of Florida (WUAF) and the FCD co-hosted the gathering. Ex-officio members were: Sen. Elmer Friday, chairman of the parent Senate Committee on Natural Resources and Conservation; Rep. Ray Mattox, Vice Chairman of Sen. Friday's committee; Lorenzo Walker, Speaker Pro Tem; and Jack Spratt.

Also present were Sen. Dick Stone, Vice Chairman, and Sen. Warren Henderson; Rep. Charles King, Rep. Wayne Mixson of Marianna, Rep. Charles Davis of Vero Beach; Nathaniel P. Reed, Assistant to Gov. Kirk on conservation matters; Harry T. Vaughn Sr., Chairman of the Water Users Association; Riley Miles, Executive Director, WUAF; Joe Browder of the National Audubon Society, Miami chapter; and FCD Board members Blakeley, Thomas and Potter. Ed Dail and seven FCD staffers, as well as Roger Allin, Superintendent of ENP, and Frank Nix of ENP staff; George Crawford and George Wedgworth of the WUAF also attended.

"When I came on the Board and was reaffirmed by Nathaniel Reed and the Governor," Padrick said, "they told me we had one major obligation -- to study and solve all the water requirements of this area: industrial, agricultural, municipal and wildlife. I assure the Legislative Council we are dedicated to taking out as much of the peaks and valleys as possible (that is, flood and drought). This is a multi-purpose project: for recreation, for replenishment of underground water, for municipal water supplies, for wildlife, for Everglades National Park and agriculture.

"Tomorrow you will see agricultural areas such as you have never seen before. We must meet all requirements, without damaging any one. I feel we can meet most requirements, but we need additional authority in Washington," Padrick said. "We need backpumping, we need to conserve as much as possible. Some releases of water are necessary, but held to a minimum. I predict very serious problems in the next 12 months. One problem is oil exploration. There is potential in the Upper St. Johns valley, but we need assistance of the committee in acquiring titles to land. One of my first commitments as Chairman was to see the FCD and conservation become synonymous. But we cannot do this at the expense of agriculture, industry, municipalities or wildlife. We must meet all needs."

The next day, four helicopters, a seaplane, and two fixed-wing aircraft transported 22 passengers from the grassy strip airport at Clewiston on a tour over the Everglades Agricultural Area and the Water Conservation Areas. They went to Everglades Holiday Park for lunch, and to inspect nearby pumping station S-9.

But the tour was interrupted. The District's seaplane flipped upside down, and landed in a canal (L-33) south of Everglades Holiday Park, on the east side of WCA-3. The plane's four occupants were suddenly plunged into 10 feet of inky black canal water. All four were rescued and unharmed. The District's pilot, Mel Littlefield, Everglades National Park Superintendent Roger Allin, and George Huster, a pilot for South Bay Growers, managed to escape through the broken front windshield of the plane. The fourth passenger, Larry Nunn of the District's public information staff, was trapped underwater in the plane. Nunn said later he thought he had died. The South Bay pilot George Huster dived into the canal and pulled Nunn out. Nunn was given artificial respiration, and he revived.

Pilot Littlefield had been flying shuttle service, transporting groups of people from a local airport to Everglades Holiday Park. On this trip, he'd forgotten to pull up the seaplane's wheels, which extended below the floats. When the plane landed on the water, the lowered wheels caught and flipped the aircraft.

"I remember my last thoughts before I died," Larry Nunn said. "I had just bought a car for my daughter, Jackie, and I signed papers so that if I were killed in an accident, the car would be paid in full. My last thought was: 'I'll bet the bastards never tell her it's paid in full!'"

PROJECTS TO INCREASE LAKE LEVEL AND SYSTEM ACCESS APPROVED

During the 1960s, in response to directives from the Congress, the Corps reviewed the overall Project to see if modifications were required to meet the changing needs of the region. As part of that review, the Corps conducted hearings at the beginning, and near the middle and end of its study. Each time, those hearings were held in West Palm Beach, Clewiston and Miami. As a result of the study and public hearings, the Corps recommended that the Congress authorize major additions to the C and SF Project.

The Corps recommendation was heeded. In the Flood Control Act of 1968, the Project was expanded to provide increased storage and conservation of water and improved water distribution throughout much of the project area. It also added public recreation as a project purpose. Congress authorized \$70 million to fund larger levees around Lake Okeechobee, so lake levels could be raised four feet above its previously authorized regulation level [17.5 feet (MSL)] -- to enhance flood control. The lake's proposed new schedule would fluctuate seasonally, between 19.5 feet and 21.5 feet (MSL). The lake had been on a regulation schedule which allowed a seasonal variation of from 13.5 to 15.5 feet (MSL). Works constructed in the 1960s were designed to make it possible to raise lake levels within the new, authorized range of 15.5 - 17.5 feet (MSL), although the 17.5 foot schedule was not put in effect until May 1978.

A high priority was given to water quantity, or adding to available water supplies, by water managers charged with protecting the region's residents from both flooding and drought. In the early 1960s, Everglades National Park supporters insisted the Park could never get too much water. At the time it was widely believed that the key to South Florida's future needs was a greater water supply, or increased water quantity.

When you add water to the top of Lake Okeechobee by increasing the overall acreage covered by the lake, water supplies are lost through evaporation and transpiration (ET). By "stacking" water up instead of spreading it out over a larger area, there is no increase in surface area, and there will be no increase in losses from evapo-transpiration, because water below the surface is protected from ET. By increasing the lake's depth with confining perimeter levees, water storage is increased while the percentage of losses from ET is reduced.

But many conservationists and biologists strongly opposed the 19.5 - 21.5 foot lake schedule, asserting that it would harm the littoral zone, fish and wildlife. The Governing Board of the District did not then or in later years accept the terms of the 1968 authorization which called for Lake Okeechobee levels of from 19.5 to 21.5 feet. Riley S. Miles of Kissimmee, the Board Chairman from 1960-67, and others have continued to doubt the lake could or should, except on rare occasions, be raised to those levels. Miles served on the Board from 1958 to 1967.

In 1968 Congress also authorized flood control works for Martin County, and approved project modifications to increase water deliveries to Everglades National Park. In December 1970 small-craft recreational facilities were authorized by the Committee of Public Works of the U.S. House of Representatives.

During 1968, two new Federal Projects were approved. One, a modification of the original Flood Control Plan, called for raising Lake Okeechobee four feet and providing a better distribution system to furnish more water through canals for cities, farms and the National Park. The second plan would open 174 miles of canals in Central Florida for recreational boating, and connect lakes and water storage areas of the Upper Kissimmee and Upper St. Johns to completed District works -- providing access to both the ocean and the Gulf of Mexico.

Congress also authorized a major project for Martin County, which would include 59 miles of canals, 11 gated spillways, two gated culverts, and one pumping station in 1968. The system would be multi-purpose: assuring water supplies for irrigation and municipal use in both Martin and St. Lucie Counties; eliminating flood damages up to the 1-in-30 year storm. Recreational benefits were also part of the project -- about 49 miles of canals would be open for public use. Project cost was estimated at \$15.5 million, with the Federal government paying \$8.1 million and non-federal interests \$5.3 million, plus

costs of lands, rights of way and relocations. The Martin County project was estimated to have one of the highest benefit to cost ratios in the District: 15.3 to 1.

THE TWENTY YEAR MARK

In July 1969 the District marked its 20th anniversary with a celebration at Everglades Holiday Park. Governor Claude Kirk, Jr. named WCA-3 "Florida's Everglades Wilderness Area." Kirk also gave Indian names to Robert W. Padrick, then the FCD Vice Chairman, and Nathaniel P. Reed, the governor's assistant for conservation, who would later become a member of the FCD Board. Padrick was dubbed "Great Water Buffalo" and Reed, "Straight Arrow."

At the FCD's 20th anniversary celebration, Governor Kirk pledged his vigorous and continued support to the FCD. The District's 1969-70 Annual Report noted that the Project was only about 50% complete. Still, studies by the Corps of Engineers and the District showed that \$194 million in damage had been prevented by the partially completed Project during periods of major floods alone. Benefits from increased land use -- the protection of once flood prone lands so they may be developed for both urban and agricultural use the report said -- brings the benefits already returned by the Project to more than \$500 million. Project expenditures to this time were \$260 million. This "benefits received" figure did not include the benefits of preserving vast wilderness areas in their pristine state, saving crops from drought and freezing by FCD stored water, or underground wellfields preserved or replenished thanks to the project.

Recreational development continued into the late 1960s and 1970s. A 134 acre recreation site was developed on Hog Island, at the confluence of the Kissimmee River and Lake Okeechobee. This site came to be called "Okee-Tantie" -- a combination of "Okeechobee" and "Tantie", the name for the city of Okeechobee in the first decade of the century -- named for Tantie Huckabee, the first school teacher in town. At the same time the District developed Southport Park, at the south end of Lake Tohopekaliga. These two parks would in later years be operated for the District under lease agreements with private enterprise concessionaires.

In September 1969, John G. DuPuis, Jr., a native of Dade County widely known as a conservationist, as well as a dairyman, rancher, bank director, and grove owner, was appointed to the FCD Governing Board. Governor Kirk named DuPuis to succeed Robert L. Searle of Coral Gables. DuPuis was born in Lemon City, in the vicinity of what is now 62nd Street, Miami, on March 10, 1905. His father, Dr. John Gordon DuPuis, was a pioneer Miami physician, educator and agriculturist. Some of the first dairy farms in Dade County, which would become known as White Belt Dairy Farms, were founded by the DuPuis family.

DuPuis attended elementary school in Lemon City and graduated from Dade County Agricultural High School, later known as Miami Edison High School, which was founded by his father in 1911. In 1927 he graduated from Ohio Wesleyan University, where he received a BS degree, majoring in geology, zoology and bacteriology. By 1969, DuPuis owned the largest herd of Dutch Belted Cattle in the world. He also had extensive agricultural operations in Palm Beach, Martin, Dade and Highlands Counties.

The Board elected Robert P. Blakeley its Chairman, to replace Padrick, who had served as Chairman since July 1967. Padrick was elected vice chairman. The other two Board members were C.A. (Mutt) Thomas, the agriculturist from Lake Harbor, and Major General Harry J. Sands, Jr., a retired Air Force officer from Melbourne appointed by Kirk in February of 1969 to replace E. Davidson Potter, who had served only one year on the Board.

General Sands was appointed to the Board in 1969 by Governor Kirk. A command pilot, Sands received many decorations and awards during his service career. During World War II he served in the South Pacific and rose to become deputy commander of the South Pacific Combat Air Transport Operation. He first came to Florida as commander of the Air Force Missile Test Center at Cape Canaveral, and after his retirement moved back to that area. "Mutt" Thomas had been first named to the Board in 1965 by Governor Burns, and was reappointed by Governor Kirk.

SOUTH FLORIDA WATER STORAGE CAPACITY INCREASED NEW ENVIRONMENTAL STUDIES BEGIN

There were two major additions to the Central and Southern Florida Flood Control Project approved in October 1969, with the FCD as local sponsor. One was a \$76 million water resources plan for South Florida; the other a \$15 million system for Martin County, which would also benefit St. Lucie County. Under the water resources plan, levees around Lake Okeechobee would be enlarged and new pumping stations built -- in order to add almost two million acre feet of water storage capacity to the lake. In addition, pumping stations would be constructed to backpump water from major east-coast canals, such as the St. Lucie, West Palm Beach, Hillsboro and Tamiami, into storage areas. It was believed the National Park, coastal cities and the Florida Everglades Wilderness Area under jurisdiction of the District would benefit from this additional storage.

There was a continuing emphasis on environmental programs in 1969-70. A comprehensive water quality survey of the Upper St. Johns, in cooperation with the USGS, the Corps, the State Game and Fish Commission, and the Brevard and Orange County pollution control agencies was begun. A survey of Lake Okeechobee, initiated a year before, continued -- and plans were formulated for similar surveys in WCA-2 and WCA-3. Pesticide monitoring, in cooperation with the USDA, also continued.

Sediment-loading studies on Canals 18, 23 and 24 were undertaken and completed, but by June 30, 1970 no final report was ready. A "profiler" was purchased and put into operation on several District canals and estuaries, for use in hydrographic surveys. This equipment was used to obtain information about the hydraulic condition of District works, and to monitor any sediment buildup in the estuaries into which District canals discharged.

Full-scale work on a pilot project to develop an economic model of a portion of the District system was begun in 1969. This work was being done by the District and the University of Florida, under a grant from the Office of Water Resources Research of the Department of the Interior. And system modeling work for the Kissimmee River Valley continued. A comprehensive system for data collection, communications and supervisory control of the District's water handling facilities was conceptualized, and the specifications for such a system were under development in 1969. Another study -- to assess and evaluate the design of the Kissimmee River structures in relation to their performance during an October 1969 storm -- was also begun.

In June 1970, the District began to acquire the land needed for construction in the next 12 months. Before June 30, the FCD acquired an interest in 31,000 acres of new right-of-way and water storage areas. By the close of FY 1970, 1,100,000 acres of canal, levee and reservoir lands were under District control. The Board endorsed an overall Land Management Policy to assure the best possible public use of public lands.

In the District's first two decades, land values rose dramatically. The assessed value of properties in the 18 counties, according to county property assessors, would top \$15.8 billion in 1970 -- compared to \$3.8 billion in 1960, and \$1.2 billion in 1950. By 1976, property values would surpass \$45 billion.

ALLIGATOR! PREMIERES

"Alligator!" a color film produced for the District, won a Silver Medal at the 20th Annual International Venice Film Festival held in Venice, Italy, in October 1969. The movie also received the "CINE" (Council on International Nontheatrical Events) Golden Eagle Award, which enabled it to represent the United States in an international film competition. Other awards garnered by "Alligator!" were: a "Chris Certificate" from the 17th Annual Columbus, Ohio Film Festival and an "EFLA Certificate" at the American Film Festival, for being the outstanding motion picture produced in Florida in the past year.

The film was shown in the First Annual Environmental Film Festival, sponsored by the U.S. Department of Interior, and held in Washington April 23-25. The film festival followed "Earth Day," April 21. "Alligator!" was distributed to television stations and civic groups by the Florida Department of

Commerce, and eventually broadcast 198 times, gaining an estimated audience of 103 million. The 14-minute film illustrates the alligator's importance to Florida's Everglades, and includes a simulation of poaching, at that time said to be the greatest threat to the reptile's existence.

In 1969, production work began on another District film, "Flight into Oblivion." It was a documentary on the life from courtship through rearing and training of the young of the Everglade kite, one of the earth's rarest birds. "Flight into Oblivion" was to be released in September 1970.

FCD EXPANDS ENVIRONMENTAL PROTECTION EFFORTS

During the year, the District strenuously opposed attempts by Coastal Petroleum Company to mine limestone from Lake Okeechobee, on the grounds it would cause water pollution problems and interfere with preservation of fish and wildlife. A Federal district court ruled that Coastal could not mine the Lake, but also held that Coastal had a valid lease and was entitled to compensation for "lost profits." It was expected that the case would drag on in the courts for months to come.

Everglades National Park had a very wet year in 1969. Through December, about 1.7 million acre feet, or 574 billion gallons, of fresh water had been discharged into the Park by the FCD -- the greatest flow into the Park ever recorded. This was the third year in four that the FCD had given ENP more than a million acre feet of water, far in excess of the annual minimum requested by the Park. In 1966 and again in 1968 the Park received more than 1 million AF through the S-12 spillways in Tamiami Trail. The amount of water flowing southward into the Everglades had been more than doubled in recent years as a result of the levees and spillways which discharge excess amounts by gravity from one WCA to another, and then into the Park.

Chairman Bob Blakeley, in a message to the citizens of Central and Southern Florida, in the District's Annual Report for 1969-70, said the District had "come of age," as it started its 21st year.

"No longer can Florida afford flood control and water conservation as simple, straightforward objectives," Blakeley said. "This is now an age, an era, in which our total environment is at stake. The population of the Flood Control District since 1949 has grown from 800,000 to almost 3,000,000. There are many grave problems which now affect our air, water, wilderness and wildlife. The District has moved strongly ahead in the past year in environmental planning. A series of major ecological and water quality studies are being conducted in cooperation with the U.S. Geological Survey."

"The Governing Board of the Flood Control District remains pledged to a policy of total water management, to ensure an adequate supply of good quality fresh water for all the people and the wilderness resources of the 18 county area," Blakeley said. "We are pledged to the preservation of major wilderness areas, the enhancement of fish and wildlife values, and we hope to make possible a better life and a better environment for all our citizens."

In later years, Blakeley's goals would be embraced by many; but the means employed to reach them, and the definitions used to describe those goals would become the center of increasingly intense debate.

CHAPTER 4 - THE 1970s: NEW LAWS & RULES PROTECT RESOURCES

The District's role expanded considerably in the 1970s with new federal and state laws and new District rules and regulations enacted to provide better protection and management of water resources and the environment. Many of these new laws and regulations were created in response to stress placed on the system by weather extremes -- stresses which were compounded by the unprecedented growth and development this decade would bring to South Florida.

UNSEASONAL FLOODING STRESSES DEER & AROUSES CONCERN

The first three months of 1970 were the wettest since records were kept in South Florida. A vast area of wilderness and wildlife areas, usually dry during this time of the year, were flooded. Fawning deer, isolated from their food supplies, were forced to high ground by the floodwaters. Many drowned, while others became gaunt and weak - their food supplies underwater or swept away. One AP dispatch began: "A gigantic man-made flood is drowning the last herd of Everglades deer."

In an aerial tour of the WCAs and Lake Okeechobee in March 1970, FCD Chairman Bob Blakeley, reporters and others reported seeing cows up to their necks in water in and around Lake Okeechobee, vast flooded tracts, and deer in trouble. In those days some farmers let their cows graze in the lake. In later years, the State chased the cows out.

By April, total rainfall for the year was within one inch of the record rains of 1947-48, when all the coastal cities were flooded. Coastal damages where District works were completed were negligible. Because the Water Conservation Areas had not been drained by the project, the effects on deer populations in 1970 mirrored what had occurred in the late 1940s.

SOLUTIONS PROPOSED

A number of solutions to this very visible crisis were offered. Palm Beach County area Federated Conservation Council Chairman Rudy Sobering criticized sportsmen and hunters for their efforts to rescue fawns and build artificial deer islands in the Everglades in the wake of that year's early and unseasonal flooding. He also objected to cabins and camps established on natural islands in the Glades.

"The Council has photographic evidence to show that habitat for game (including alligators) has been ravaged and destroyed by hunting equipment," Sobering wrote in the Council Newsletter. "It is evident that wildlife is being harassed by constant human pressure in wilderness areas. Some thought should be given to the possibility that man-made mounds can be a liability in the sawgrass areas."

"Hunter-created mounds are hazards for vehicles and could be a public liability under the new State Constitution. They certainly change the ecology, and upland wildlife taking refuge on such mounds may be the target of slaughter by hunters. Perhaps if some of the larger natural islands, which have existed for ages, were not inhabited by hunters, with their camps which are often used year-round, there would be more habitat and refuge for wildlife."

Sobering also addressed his concerns to the FCD Governing Board in April 1 of 1970. "Fawns are pawns in the duping of the public at large," he said. "So-called Conservationists or Sportsmen, under the cloak of Conservation, are duping the public with an expose called 'Save the Fawns Program' when in reality some so-called sportsmen are licensed customers of the Florida Game and Fresh Water Fish Commission who are in the Wildlife Harvesting business under the so-called 'Game Management' lease with the Central and Southern Florida Flood Control District Organization."

Writing as the Agriculture and Conservation Chairman of the 14th Division of Kiwanis -- Lake Worth, Sobering suggested the Board consider fees for permits to discourage heavy usage of islands for camps, or have the U.S. Fish and Wildlife Service regulate the public's interest in WCA 3. "If the deer had these islands, which in reality have been their sanctuary for years, it would not be necessary to destroy the ecology of the Everglades by piling up dirt to be a hazard and thus a liability to all people of this state in case of accidents. This is not true conservation in the public interest. Let's face it, these hunters are drowning not only the egg laid by their golden goose but also the goose. Consequently they will have nothing to hunt in the near future."

THE FIRST EVERGLADES CONFERENCE

Some of the District's staff were concerned about inaccuracies perpetuated in newspapers, and on television and radio about Florida's Everglades. Statements were attributed to various laymen, fishing guides and locally elected officials. Some blamed the District for flood, and some blamed it for drought. In response, District staff -- among them Tom Huser -- planned a conference to bring together experts in many fields, to shed the light of truth on the Everglades and its problems with officials from the University of Miami, including Dr. Leonard J. Greenfield of the Graduate School; and Dr. Taylor R. Alexander, Biology.

That informative gathering was held in February of 1970 at the Sheraton Four Ambassadors. It was called the "Everglades Conference at Miami," jointly presented by the University of Miami Center for Urban Studies and the Central and Southern Florida Flood Control District. The University taped all the presentations, and a book containing transcripts of the proceedings was published.

Some of the participants, presenters and topics at the conference were:
Everglades Soil -- Frank Nix, Hydraulic Engineer, National Park Service; Dr. Taylor R. Alexander, Biology Department, U-M; Dr. Charles Eno, Soils Department, University of Florida; John C. Stephens, South East Watershed Research Center, Athens, Georgia.

Water -- William V. Storch, Central and Southern Florida FCD; James Hartwell, U.S. Geological Survey, on water and weather cycles; Dr. Durbin C. Tabb, School of Marine and Atmospheric Sciences, U-M, on marine and fresh water areas, estuarine salinities; Dr. Robert C. Harriss, Oceanography Department, F. S.U., on water quality in organic sediments.

Geology - Dr. Clarence P. Idyll, School of Marine and Atmospheric Sciences, U-M; Dr. Robert N. Ginsberg, School of Marine and Atmospheric Sciences, U-M; Frederick Meyer, U.S. Geological Survey on Everglades formative and erosive processes; and Dr. Robert O. Vernon, Tallahassee on Estuarine geology.

Microorganisms -Dr. Leonard J. Greenfield, Graduate School, U-M; Dr. E.J. Ferguson Wood, School of Marine and Atmospheric Sciences, U-M on production and cycles; Peter B. Rhoads, Biology Department, U-M on Blue-greens; and Dr. Burton P. Hunt, Biology Department, U-M on Algal food sources.

Herbaceous Water Plants - Wallace E. Manis, U.S. Plant Introduction Station, Miami; Dr. Ronald H. Hofstetter, Biology Department, U-M; Dr. Robert D. Blackburn, U.S. Department of Agriculture, Fort Lauderdale on types and biomass of species, successions and contribution to detritus; and Dr. Kerry Steward, Botanist, U.S. Department of Agriculture, Fort Lauderdale on production and relationships.

Large Plants - sawgrass, etc. - Dr. Taylor R. Alexander, Biology Department, U-M; Dr. Robert Long, U.S. F., Tampa on types and distribution of species; Dr. Frank C. Craighead, Homestead on catastrophic events and their effects on plant communities; and Mrs. Julia Morton, Morton Collectanea, U-M on plants' supportive role to animals.

Animals in the Everglades - Dr. John A. Harrison, Graduate School, U-M; Dr. Oscar T. Owre, Biology Department, U-M; Dr. Owre on birds; C. Rhea Warren, Biology Department, U-M on reptiles; Dr. Burton P. Hunt, Biology Department, U-M on fish; Dr. Larry Brown, University of South Florida, Tampa on mammals; Thomas Costello, Bureau of Commercial Fisheries, Miami on invertebrates; Dr. William B. Robertson, Jr., Biologist, National Park Service on history of animal populations; and Dr. Milton C. Kolipinski, U.S. Geological Survey, Miami on animal populations and catastrophic events.

Urban Center Workshop - The South Florida Everglades Planning Council -- The Honorable Earl Starnes, Chairman, South Florida Everglades Planning Council and Commissioner, Metropolitan Dade County.

Planning and Administration - Dr. Eugene H. Man, Research Coordination, U-M and UM Everglades Task Force; Thomas Buchanan, U.S. Geological Survey on current Everglades research; Mrs. Alden Hine, Cultural Anthropologist, Miami on environmental decision making - some components; Reginald Walters, Planning Department, Metropolitan Dade County on planning and land use; and Dr. Murray I. Mantell, Civil Engineering Department, U-M on zoning.

Use and Misuse of Water - Dr. C.E.B. McKenry, Center for Urban Studies, U-M; Dr. William J. Fogarty, Civil Engineering Department, U-M; Peter Paul Baljet, Dade County Health Department; Robert E. Evans, Dade County Pollution Control Department; Dr. Werner Grune, Civil Engineering Department, U-M; Howard Klein, U.S. Geological Survey, Miami; and Riley S. Miles, Water Users Association of Florida, Inc.

Land Development - John Raftery, Everglades National Park; Nolan Popenhager, Coconut Grove an amateur naturalist; Dr. Joseph D. Dalton, Dade County Agriculture Department on salt water intrusion; Dr. R.V. Allison, University of Florida, Everglades Experiment Station, Belle Glade on Everglades agriculture, before and after; and Homer Hiser, Radar Meteorological Laboratory, Miami on effects on South Florida weather patterns.

Conservation - Dr. Charlton W. Tebeau, History Department, U-M; Ted Baker, Landscape Architect, Miami on an ethical approach to recreational development; Joel Kuperberg, Collier County Conservancy on regional planning for conservation; and Gary Soucie of Friends of the Earth, a conservationist looks at the Everglades.

Dr. Henry King Stanford, President of the University of Miami and Nathaniel Reed, Director of State of the Florida Department of Air and Water Pollution Control also participated in the conference.

SENATE COMMITTEE HEARS TESTIMONY ON WATER DELIVERIES TO THE PARK

In February of 1970, Everglades National Park's water needs were discussed in a Senate Committee meeting. The District's Chief engineer Bill Storch, State Senator Holland, and Nathaniel P. Reed, a personal representative of Governor Kirk's, testified at the meeting arranged by the Senate Subcommittee on Public Works, Committee on Appropriations.

Storch described the FCD's interim and future plans for water deliveries to the Park. "We in the Flood Control District and in the State Department of Natural Resources have worked on this problem of an interim water supply to the park since 1964." In 1964, the FCD adopted an interim plan for extra water supply to the Park because of fires and other impacts from extreme droughts in 1963 and 1964. "It was a very minimal plan I must admit," Storch said, "but it was a step in the right direction to attempt to insure some supply of water to the park when we were in a condition of nonregulatory discharges from our conservation areas."

"Early in 1966, after considerable work done by the Corps of Engineers in 1965, another interim schedule was prepared and agreed to by the State and by the Flood Control District. This one was prepared by the Corps of Engineers and we are now currently operating under this interim release schedule. This was related strictly to conditions in Lake Okeechobee and it was in reality a regulation schedule for Lake Okeechobee," Storch told the Committee.

Though the 1966 schedule did augment water supply to the Park, the distribution and time of these quantities of water were not in accordance with the historical flow pattern of water to the Park, a 1968 report said. By April of 1969, the committee was told, the engineering staff of the FCD, after consultation with other involved agencies, put together a revised interim release schedule plan to remedy the situation. Storch presented the Senate Committee with documents outlining the former regulation schedule, based on water levels in Lake Okeechobee of between 13-1/2 feet and 15-1/2 feet, and said that within 2 years a new regulation schedule of 17-1/2-foot top level in the lake would be used. At that time, the FCD's water release schedule would also be revised.

That revision would mean about 260,000 acre-feet could be released to the Park -- 55,000 fewer acre feet than had been called for by Park officials. "We simply cannot deliver the full 315,000 until the additional project works are constructed as authorized in 1968," Storch said. Historically, 260,000 acre-feet

had been the mean / average flow through Tamiami Trail. In other words, 50% of the time flows were greater, and 50% of the time flows were less than the figure Storch cited.

"When we go to the 17-1/2-foot level, the objective will still be to deliver the 260,000 acre-feet," Storch added. "With additional water stored in the lake we will be able to improve the performance of delivery of the 260,000 acre-feet; that is, fewer exceptions. Then as we move into construction of the works authorized by Congress in 1968, we hope an early priority in that phase of construction will be the facilities for delivery of water into south Dade County and into the Taylor Slough portion of the Park. When these works are finished, ... we will again review our schedule." Storch said when Lake Okeechobee regulated levels were brought up to 21-1/2-foot, and facilities construction completed, the District might be able to improve Park water deliveries even more.

According to the 1968 agreement reached between the Department of the Interior and the Corps of Engineers, the Park would receive at least 315,000 AF annually, except when it has to share shortages with other water users on a pro rata basis. The Park's water allotment would have priority over and not be diminished by new users, and any surplus in the system would be given to the Park.

The Interior Department's spokesman George Hartzog expressed his confidence in the abilities and judgement of the Corps of Engineers to Senator Holland at the hearing. "I have developed over the past 7 years, Senator, complete confidence in the integrity of Mr. Storch and Joe Koperski as competent engineers. I have said publicly and I say to you again I think the most competent engineers I know in the world are the Corps of Engineers and I have never found them on an engineering matter to be other than candid and other than correct," he said.

Committee Chairman Senator Allen Ellender echoed Hartzog's sentiments. "Now that you have paid such compliments to them I hope you two can get together," the Senator told Hartzog. Hartzog said any disagreement between the Department of Interior and the Corps was about policy issues, not engineering.

POLICY ISSUES DRIVE CONTROVERSY

"The problem seems to involve also a question of law as to who controls the distribution of water, and I do not think this committee could determine that if we tried to," Senator Holland said, "but that problem certainly looms and the fact that the Secretary of the Interior sought advice from the Justice Department and has not been able to get it yet would indicate that it is a troublesome problem."

"Since there has been so much confidence expressed in the Corps of Engineers, we have their testimony here that if, as and when this project is completed, a better flow of water that never existed in the past would be available," Senate Committee Chairman Ellender said. "So it strikes me that ought to settle that matter." Holland agreed.

Nathaniel Reed, a personal representative of Governor Claude R. Kirk, Jr., was called on to make a statement. Reed's testimony opened with this caution: "Mr. Arthur Marshall, U.S. Fish and Wildlife senior officer in Florida, has predicted a very serious water shortage in 1976 unless the present construction on Lake Okeechobee is allowed to proceed rapidly to elevation 17.5 feet," he said.

Reed said Governor Kirk wanted to be sure all water users including the Park received adequate and dependable supplies, emphasizing that the Park suffered terribly in times of drought. "I would propose to you, sir, immediately bringing the three parties, the State of Florida, the Department of the Army, and the Department of the Interior, together to meet, to attempt to agree on points which can be agreed upon, and to bring back to your attention the issues which we fail to resolve," Reed concluded.

In less than two months, the flooding crisis appeared to be remedying itself. After March, the rains subsided, and water levels in Lake Okeechobee and the Water Conservation Areas were brought down to acceptable stages in time for the summer rainy season.

EVERGLADES "SPECIAL STUDY TEAM" ASSEMBLED

In March 1970, a study team was appointed by the Florida Chapter of the Wildlife Society to evaluate Everglades wildlife problems and to suggest solutions. The team was assembled at the request of the FCD, with the agreement of the Florida Game and Fresh Water Fish Commission.

The study team was comprised of five individuals with a wide range of experience and expertise, and at least 25 years of intimate association with the Everglades. They were: George W. Cornwell, Associate Professor of Wildlife Management, University of Florida, Gainesville; Robert L. Downing, Wildlife Research Biologist, U.S. Bureau of Sport Fisheries and Wildlife, Blacksburg, Virginia; Arthur R. Marshall, Director, Laboratory for Estuarine Research, Institute of Marine Science, University of Miami; James N. Layne, Director of Research, Archbold Expeditions of the American Museum of Natural History, Lake Placid, Florida; and Charles N. Loveless, Chairman, Assistant Director, Denver Wildlife Research Center, U.S. Bureau of Sport Fisheries and Wildlife, Denver, Colorado.

The team consulted with what they called 25 of the most knowledgeable people in South Florida on the overall Everglades problem. We have made

every effort to deal objectively with the great ecological, economic, and social values of the total Everglades ecosystem, and the importance of preserving what remains of this environment in its natural state."

Their general recommendations included: establishment of an interagency coordinating committee and a cooperative research program; a halt to Kissimmee River construction, and study of the feasibility of diverting flood waters pouring down the "ditch" into broad, lateral river marshes, to slow flows and improve water quality -- to essentially restore the waterway. "Efforts to restore the natural hydroperiod of the Everglades must begin in the Kissimmee Valley," the team concluded. The team also said publicity releases and press coverage concerning crisis situations in the Everglades should involve and be cleared by the agencies involved to insure basic causes, rather than just the symptoms, are emphasized.

The team also made a number of specific recommendations. On water quantity and quality, recommendations were: water regulation schedules for the Conservation Areas should be completely reevaluated to determine their applicability in terms of current or new priorities and objectives; location and accuracy of water level gauges in the Conservation Areas should be reevaluated by an independent group of hydrologic engineers; a primary objective of water management should be to preserve or restore the historic natural hydroperiod, and water level regulation for the overall Everglades system should be developed with consideration for the entire natural resource base.

The team also said every effort should be made to ensure that Everglades National Park continues to receive an adequate supply of quality water on a seasonal basis to maintain the natural integrity of the flora and fauna; and suggested that water quality in the entire Everglades system should be continually monitored for nitrates and phosphates, chlorinated hydrocarbons, polychlorinated biphenyls, heavy metals and other contaminants, and the sources of each determined. The sampling network should include the Kissimmee Valley, Lake Okeechobee, Everglades National Park, and the three Conservation Areas. At all appropriate locations plant and animal indicator species should also be sampled and analyzed.

Long-range, intensive and continuing studies of Everglades vegetation to document changes due to water levels or other factors would be essential, the team said. The Florida Game and Fresh Water Fish Commission should conduct a comprehensive research program on the Everglades deer herd. That program should emphasize the population dynamics of the herd, deer movements, disease and nutrition, and the relationships between herd density, water levels, the carrying capacity of the habitat, and man's activities in the area. The status of waterfowl, colonial nesting and wading birds, frogs, fish and alligators and their habitats should also be continually monitored through extensive long-term research. A comprehensive and far-reaching recreational plan should be developed for Conservation Areas 2 and 3.

Limitations on recreational use were also suggested, including the elimination or restrictive regulation of halftrack vehicle-use; more rigid regulation of airboats in the Conservation Areas, particularly during periods of high water and for huntingdeer; and prohibition of the use of dogs for hunting deer in the Conservation Areas.

"All permanent camps in the Conservation Areas should be eventually eliminated and strict regulations established to minimize any deleterious effects on the environment while they are in existence," the team concluded. "If artificial tree islands are constructed in Conservation Area 3, they should be confined to the region north of Alligator Alley, should be 1/8 to 1/4 acre, appropriately spaced and not exceed four or five per square mile, and should be elliptical in shape with their long axes oriented generally north-south."

Other, more broad-based recommendations made by the team called for action and funding from the state. The team said Florida should consider acquiring all private lands in the Conservation Areas, to provide needed jurisdictional authority for better control and management of the resources in the area. Public acquisition of lands within the Big Cypress Swamp should be pursued to protect its water resources and wildlife, the team said. "Alternative courses of action, e.g., wild or primitive area status, etc., should be evaluated as a measure to protect the unique flora and fauna of all or portions of Conservation Area 3," the report concluded.

U.S. CONGRESS MANDATES MINIMUM PARK DELIVERIES

In June of 1970, the U.S. Congress enacted a law requiring a minimum water delivery of 315,000 acre feet per year to Everglades National Park. That legislation, Public Law 91-282, 91st Congress, H.R. 15166, specified a monthly minimum delivery schedule.

The legislation also authorized the appropriation of \$25,000,000 -- for modifications to the Central and Southern Florida comprehensive plan approved in the Flood Control Act of 1948, and in subsequent acts of Congress. No more than \$5,000,000 was to be made available for the accelerated construction of L-70, C-308, C-119W, and pumping station S - 326, and other works in the plan of improvement as the Director of the National Park Service and the Chief of Engineers agree are needed by Everglades National Park.

The legislation directed that as soon as practicable, or upon completion of the works specified, water delivery from the Central and Southern Florida project to the Park should be no less than 315,000 acre-feet annually, prorated according to a monthly schedule, or 16.5 per cent of total deliveries from the project for all purposes including the park, whichever is less.

The law specified delivery of a yearly minimum of 260,000 AF to the northern boundary of the park directly across Tamiami Trail from WCA-3, and the remaining 55,000 AF to be delivered "as soon as conveyance facilities are constructed," through Taylor Slough (37,000 AF) and the eastern panhandle area (18,000 AF). A Senate report concluded that although the project could, in 1970, deliver 315,000 acre-feet to the Park in average rainfall years, project works did not yet exist to distribute that water to the eastern side of the Park. In dry years, the report added, shortfalls were likely -- but would occur less often as additional water supply would be provided through the modifications authorized in 1968. In wet years, minimum park deliveries could be easily met.

The formula to be used to compute water deliveries to the Park meant, according to the Senate report, that "in times of drought, if total deliveries from the project fall below an annual rate of 1,905,000 acre-feet (the current normal project capability), the park guarantee of 315,000 acre-feet will be proportionately reduced. As the capability of the project increases, this would of course be less likely to occur."

FROM FLOOD TO DROUGHT ONE CRISIS FOLLOWS ANOTHER

While solutions to problems in the Everglades were still being pursued, conditions which would make those solutions even more critical began to develop. In late March of 1970, while it was still raining, Board member John DuPuis, made what would turn out to be a trenchant prediction. "I have a feeling these rains may stop and we may go into a long, extended dry spell. I've talked to some old timers, and they say they've seen this before."

South Florida found itself in the grip of a dry season which would last more than a year. Unfortunately the rainy season was also dry. By October, what little rain there had been stopped. By May of 1971, the District was forced to issue a request for voluntary water use cutbacks throughout the southeastern portion of the District. The request was for a 30% reduction in water use. All water users -- agricultural, industrial, municipal -- were asked to participate. The call for voluntary water use restrictions lasted until the third week of June.

The National Weather Service in Miami issued a special, teletype statement in April of 1971 on the drought. "South Florida remains in the grip of one of the most, if not the most severe droughts on record. Numerous grass and muck fires are reported over much of the Florida Everglades, and water tables have dropped to record levels," the statement said.

The Service reported that well levels in the Miami Springs and Homestead areas were well below sea level. The severity of the drought in South Dade County was in part due, the Weather Service said, to decreased water storage and population growth since World War II. Lake Okeechobee water levels dropped to 11.65 feet by the end of March. Total rainfall recorded at Miami

from October 15 to April 15 was 3.1 inches, less than half the driest six month period on record -- which was 6.47 inches in 1944/45.

Even more critical was the fact that daily rainfall was so insignificant the total never had the chance to reach subsurface water tables. September 15 was the last day on which an inch or more fell, 212 days during which water storage could not be replenished. The previous record was 118 days over which daily rainfall was insufficient to replenish water tables, in 1956/57, according to the Weather Service.

CLOUD SEEDING -- AN ATTEMPT TO END THE DROUGHT

In April and May of 1971, a federal-state cloud-seeding experiment requested by the FCD was begun. Dr. William Woodley of the Experimental Meteorological Laboratory (EML), NOAA, University of Miami, was the project's director.

Over 57 days in these two months, two Research Flight Facility aircraft of National Oceanic and Atmospheric Administration (NOAA) flew 16 cloud-seeding missions, and were able to seed on 14 days. During two months of cloud seeding, 2,066 pyrotechnic flares were used. A four-engine DC-6 aircraft flew 72 hours on seeding missions; a B-57 bomber flew 17 hours.

Seeded clouds merged and produced heavy rainfall in the Everglades on 10 of the 14 attempts. On April 26 and May 22 substantial rainfall also occurred in Miami. There was little or no effect from seeding on only three occasions. The NOAA contributed \$125,000 to the experiment, and the FCD \$40,000.

The FCD installed 147 rain gauges in the primary "target area" of 4,800 square miles in central Florida. Flights were only conducted on days when clouds appeared to be seedable. Results were most successful on large cumulous clouds, with tops above 17,000 feet, and when temperatures were below freezing. District officials called the experiment a success, because enough rain was produced to justify the effort and expense, and additional cloud seeding was planned in June.

OTHER 1970/71 YEAR-END HIGHLIGHTS

At the end of Fiscal Year 1970-71, District Board Chairman Bob Padrick noted that although the record drought dominated the headlines that year, the District supplied fresh water by canals to the principal city wellfields on the lower east coast for 56 consecutive days of the drought. "We staved off the intrusion of salt water which would have rendered city wellfields useless," he said. "But it was touch and go for awhile."

Intensive water quality and ecological studies of Lake Okeechobee, to pinpoint pollution and enrichment problems, completed in 1969 by the District, led to a detailed report published by the U.S. Geological Survey in 1971, which concluded that the lake was in an "early eutrophic" state. "Our Governing Board has no intention of presiding over the funeral of Lake Okeechobee or any other body of water in the District," said Padrick in the District's Annual Report. Nutrient investigations, monitoring of pesticides, water quality and vegetative studies were expanded in the three Conservation Areas of South Florida. In January of 1971, a drawdown of Lake Tohopekaliga began. More than 40% of the lake bottom was exposed to air and sunlight, to reduce nutrients which had built up on the bottom. A number of proposals to exploit or develop the natural areas were denied, including Coastal Petroleum Company's plans to mine limestone in 100 square miles of Lake Okeechobee.

Regional planning on a watershed basis, and enforcement powers to back up a regional approach became a part of the FCD's plans for its future efforts to improve water resource protection. "The District must become a water regulatory agency, with authority over underground water as well as surface water. We are taking the actions that, hopefully, will achieve this result," Padrick said.

A study of a new, unique communications system -- to give the FCD "remote control water management" with telemetry and computers -- was authorized and begun. It should result in the most sophisticated and effective water management network that we know of in the world.

The FCD's Chief Engineer William Storch received the 1970 Conservation Award from the Florida Wildlife Federation of Palm Beach County. In November, the Board ruled that no more permits be issued for sewage or other wastewater discharged into waterways and reservoirs. In December, State Senator Warren Henderson presented the American Alligator Council's award to Chairman Padrick for "decisive action taken for the preservation of the American alligator and its habitat."

Robert L. Clark, Jr., of Fort Lauderdale was named to the Board by Governor Askew in June 1971. A third generation Floridian, Clark attended the University of Florida and the University of Miami. Clark's father had been Sheriff of Broward County. His grandfather was a Florida pioneer.

Clark was in the cattle business, and operated the County Line Ranch in Fort Lauderdale since 1958. He had been President of the Hollywood Reclamation District, Secretary of the Florida Farm Bureau Federation, and President of the Broward County Farm Bureau. When appointed to the FCD Board, he was Director of the Fort Lauderdale National Bank, and was known as a sportsman and conservationist. Clark would serve on the Board until 1984. He was Chairman from 1972 to 1984.

THE DADE COUNTY JETPORT - CHRONOLOGY OF A CONTROVERSY

Over the years, the District would find itself addressing some of the same controversial issues again and again. One of those long-lasting controversies is a proposed regional airport / Jetport, to be located near WCA 3 and / or Everglades National Park. That proposal, in various forms, has generated more than a decade of controversy. Newspaper headlines first heralded the issue in the late 1960s, and the proposal continued to generate disagreement into the 1970s, and beyond.

On January 15, 1970, the Department of the Interior issued a news release saying "Secretary of Transportation John A. Volpe and Secretary of the Interior Walter J. Hickel today announced that Dade County, Florida, has agreed to seek an alternate site for the commercial jetport proposed near Everglades National Park and that the current site will be restricted to training flights. The agreement governing future airport construction in the South Florida area will be signed Friday by the two Departments, the State of Florida, the Dade County Port Authority, and Collier County."

Dade County Commissioners ratified the agreement that same day. It specified that the Port Authority would begin a search to relocate the commercial airport site presently planned in the Big Cypress Swamp area adjacent to the Everglades. The agreement also said that the facilities already constructed on the present site would be used only as a one-runway airport for flight training purposes, and that such operations would be carried out under strict environmental safeguards designed to protect the National Park. Training facilities, according to the agreement, would eventually be transferred to the alternate commercial site.

The two Departments also agreed that Dade County would not be required to abandon the current airport site until: an alternate site had been agreed on and acquired; and training facilities constructed equivalent to those in existence --both at no cost to Dade County. In return, Dade County would convey title of the abandoned airport to the governmental agencies or public bodies which provide the funds or land for an alternate site.

The State of Florida agreed to assist Dade County in locating a new regional airport (Jetport) site. If the alternate site were owned by the State, ownership would be transferred to Dade County without cost. The Departments of Interior and Transportation also agreed to coordinate an inter-agency agreement in the search for an alternate site, to ensure the protection of the ecological and environmental balance of Everglades National Park and the entire South Florida region.

Interior Secretary Hickel said resolution of the site-selection problem was symbolic of the American awareness of the importance of the environment. "Our best information is that the impact of constructing and operating a commercial jetport at the proposed site, plus the related development that

would build up around it, would probably destroy the Everglades," he said. "The agreement, recognizing the 'need for a South Florida regional airport, the construction of which must be completed before the end of the coming decade,' is effective for three years, after which it may be renewed by mutual consent."

Miami International Airport, near downtown Miami, was already operating at more than its rated capacity of 437,000 take-offs and landings a year. In 1968, there were 445,000 operations at Miami International. Dade County Port Authority figures show that by 1980, facilities for nearly 750,000 take-offs and landings a year would be needed, and Dade County officials had told Federal officials that it would not be possible to expand Miami International Airport to meet those future needs.

By June of 1972, the Jetport Site Selection Team had held public hearings in Miami and Hollywood, and more than 250 persons attended the two sessions. A booklet, "Second Progress Report" was distributed to the public. That team had narrowed the selection to three sites: one was just south of Andytown, and extended into WCA-3 (Site 9); another was located south of Broward County, extending into WCA-3 (Site 14); the third was south of U.S. 41 and east of the National Park (Site 18). Each proposed site had some disadvantages, the team said. Site 18 would close Miami International Airport. Sites 9 and 14 would effectively close, or seriously restrict Fort Lauderdale Airport. From an economic viewpoint, Site 14 would be the most efficient; Site 9 ranked second; Site 18 was least efficient.

Development costs were estimated at \$1 billion, to be paid by the Dade County Port Authority, from the sale of bonds, with \$250 to \$300 million to be paid by the U.S. Government. The cost of the site selection study exceeded \$1 million by June 1972. The final site selection was to be made at the next meeting of the Review Team in July, 1972. Site 14 was selected by the team.

In September, 1972 The FCD Governing Board adopted a resolution (# 1015) authorizing cooperation in the planning, acquisition and development of the alternate jetport site, and also asked the Governor to designate the existing Jetport Site and adjacent land as an Area of Critical State Concern.

A little more than a year later, in August of 1973, Board members expressed concerns about the jetport site finally approved by the Dade County Commission. Board member Pratt said that site planners intended to extend the airport almost to Levee 67, and said that location was one of the few remaining large natural open areas for recharge of the Biscayne Aquifer from natural rainfall. Pratt recommended the District reject the Site 14 jetport as proposed by Dade County.

Dr. John DeGrove was concerned that relocation of a jetport site from one portion of the Everglades to another was not an adequate solution. He said there was enough time for District staff to restudy the proposed site as approved by Dade County, because Congressional action on funding was not expected soon.

Clark said Dade County was trying to solve its problems by relocating the airport facilities farther westward, but in doing so would create more problems for the Flood Control District. He was concerned about the construction of passenger terminals, fuel depots and other facilities in the Everglades.

Board member DeGrove said changes made by the site planners might make it impossible for the District to support the site, for reasons of water quality and quantity. Clark asked Executive Director Dail to write to the Mayor of Metropolitan Dade County for additional information, and directed staff to study the issue more closely.

The following day, August 18, 1973, the headlines read: "FCD REBUFFS DADE ON JETPORT SITE -- CONSERVATION AREA 3B" in a story by Bob Bloodworth in the Fort Lauderdale News and Sun-Sentinel. The article said Board members, "refused to approve a Dade County request for expansion of the South Florida regional jetport into Conservation Area 3B... Dade County became the number one site for the jetport after Palm Beach County officials rejected the proposed South Florida jetport."

In November of 1973, an internal memorandum from Jay Landers to Governor Askew supported the FCD's stand against the Jetport site as proposed by Dade County. "On Thursday, November 8, I met at the Flood Control District headquarters in West Palm Beach with Bobby Clark, John DeGrove, Bob Padrick, Claude Godwin (your new appointee from Brevard County), and Ed Dail and Jack Maloy of the staff. The purpose of our meeting was to discuss the latest developments on the Jetport. There is increasing opposition to Site 14 as modified by Dade County," Landers wrote.

He said the site, as modified by Dade County, was not acceptable because it posed a threat to water quality. "Technology does not exist to treat the waste water that could be generated by a heavy rainfall. Waste water contaminated by petroleum products could then seep into the porous limestone and into the freshwater aquifer," Landers wrote. He added that construction would involve extensive rockmining, and muck would have to be stripped in order to make a foundation for the runway. This might involve draining the entire area, and he said would be extremely expensive.

Placement of the Jetport facility within the WCA would also bring tremendous pressure to allow other types of development in the area. "Presently, a company named Everglades Assets is in court against Palm

Beach County, challenging zoning which prohibits it from mining in the conservation area. Everglades Assets won a suit several years ago against the Flood Control District for the right to mine the land," Landers wrote.

He added that enormous growth would probably follow a major Jetport facility, and acquisition costs could run as high as \$100 million. "It is unrealistic to think Congress will appropriate that amount, in light of the fact that the original costs were only \$13 million, and we are also asking Congress for \$116 million for the Big Cypress acquisition. Not a single FCD board member supports the site as modified by Dade County. Having reached these conclusions, we agreed that the site, as modified by Dade County, was not acceptable and the Flood Control District should oppose it."

Landers and the Board agreed their opposition would be in the form of commenting on the draft Environmental Impact Statement. "This is a normal and necessary procedure and one in which the Flood Control District must give its honest evaluation. Thus, rather than pass a resolution or take a position on the modified site, at the next meeting the board will direct the staff to prepare comments for the Environmental Impact Statement. The comments will then be finally approved by the board for submission. No doubt this is going to stir this whole mess up all over again. The best course would have been to allow the Flood Control District to remain silent and let it die on the federal level. However, because of the Environmental Impact Statement being circulated; and because the Flood Control District would surely be called upon to testify in any Congressional hearings on the appropriation, they might as well go ahead and take their position now," Landers concluded in his memorandum.

He said the FCD's opposition was to the County's proposal, not to Site 14 as originally proposed by the Review Team. "What they cannot accept is the further extension of the runways into the conservation area as required by the modified plan of Dade County."

Once again, in January of 1975 the Jetport was "in the news." The Hollywood (Fla.) Sun-Tattler headlined a story: "FCD SEEKS CRITICAL CONCERN DESIGNATION FOR PROPOSED JETPORT."

"FCD governors are trying to control the impact on the county conservation areas by having the jetport site declared an area of 'critical concern,' the article said. 'The Florida Cabinet, which has sole authority to designate an area as one of critical concern, should rule on the FCD's request within a few weeks. FCD Board Chairman Robert L. Clark, Jr. said the airport site has been moved farther to the west without the board's approval. 'They moved west without consulting us and shoved it down our throat,' Clark said. Vice chairman John M. DeGrove said the jetport represented 'a major invasion' of conservation area 3B."

"Critics claim the jetport represents a danger to the remaining conservation areas in the Everglades. In addition to air, soil and water pollution from the jetport itself, the facility will attract developers drawn by the millions of dollars in revenue from the mammoth facility, critics have charged. The terminal will be designed to accommodate up to 115 million passengers a year. In anticipation of this, some of the 80,000 acres of privately owned land within the conservation area have already changed hands. The remaining conservation areas represent what has been called the 'bare minimum' necessary to provide South Florida with drinking water."

Eight months later, on August 29, 1975, the jetport again garnered headlines, this time in the Miami Herald. Don Bedwell, Herald Aviation Writer, wrote:

"Dade County carved its proposed North Dade training jetport in half Thursday, in the face of clear federal opposition to its request for \$115 million in U.S. airport funds. Drastically revising the funding application submitted a year ago, Dade officials agreed to cut the proposed site, on the Dade-Broward line at U.S. 27, from 50 square miles to 23 square miles -- still one of the biggest airport tracts in the world.

"Dade asked \$69.26 million to fund the reduced project, including land acquisition and construction of a single runway to handle training now being conducted at a controversial strip north of Everglades National Park," the article noted. "Certainly there's more chance of getting the plan through Congress' in its curtailed form, said Dade Aviation Department Director Richard H. Judy..."

In March of 1976 FCD Board members once again discussed the jetport. Board member Ben Shepard objected to the Staff Impact Assessment Report on the Draft Environmental Impact Statement for the Everglades Jetport -- scheduled as Agenda Item No. 1 of the Department of Resource Planning the next day. He said the District had already commented on the issue, and reviewed its history.

Shepard recalled that an exhaustive site study was made; that the first two sites were proposed in the Conservation Area, but the FCD said "No." The Everglades site was selected, north of Everglades National Park, and all agencies concurred including Interior, according to Shepard. He said the site was relocated six miles to the north at request of Interior. About 1968, he said, it came out that a transportation corridor would be necessary; actions by the FCD triggered controversy; Dade County had issued \$13.5 million in Revenue Bonds, and the 39-square-mile site was purchased; and one runway was laid. This was okayed by the FAA, but then a delay was ordered.

The Jetport Pact was signed (Jan. 16, 1970) by the Departments of Transportation and Interior, the Governor of Florida, Dade County, and the FAA. It was agreed to use one runway in Collier County, and it was agreed that an alternate site would be sought.

Shepard said the first choice of those assessing environmental impacts was to develop Miami International Airport; the second was a site south of Tamiami Trail later deemed unsuitable; the third was Site 14. In 1972, the FCD Board passed a Resolution agreeing to cooperate with the site selection agreed upon by the Departments of Interior and Transportation. Then in 1974, the Board passed another Resolution urging designation of Site 14 as an Area of Critical State Concern. Shepard recalled that it took several months to determine who would prepare the Environmental Impact Statement (EIS). "Interior was not satisfied with Dade County, and Dade County wasn't satisfied with Interior; so it was agreed the FAA would do it; the FCD had input; information and a report from the FCD staff were submitted to the FAA; the FAA had the benefit of input from everybody; all sites were evaluated, and the choice came back to Site 14." He said the FCD staff was now evaluating and criticizing the EIS; but he thought the horse had been ridden and beaten enough.

Shepard said District staff should say the FCD stands pat on its statement of such-and-such a date. Shepard insisted he could not support the staff report. "We've come full circle and gotten nowhere." He added that a recommendation was now being made to go back to the old site in Collier County.

But Board member DeGrove said that the FCD was required to make this study; and to do nothing at this point would be wrong. He said the matter could be discussed the next day. That day, the staff's environmental impact assessment report was tabled. It was brought back for discussion the next month.

In April of 1976, the Board accepted the staff impact assessment report on the Draft Environmental Impact Statement - Replacement Airport for the Everglades Jetport, and instructed the Executive Director to reiterate the Board's request that "Jetport Site 14 and adjacent land be designated as an Area of Critical State Concern, with appropriate institutional arrangements to assure against any adverse effects on water quality; further, that the Board objects to any diminution of the Water Conservation Areas and requires that if any land is taken from the Conservation Area that equal acreage suitable for water storage be substituted adjacent to the Conservation Area."

But discussion did not end there. Comments and letters from Everglades National Park, from the District, from the Corps and others continued to pour into the Board, and the Jetport issue would be discussed at meetings for years to come.

In July of 1979 James L. Garland, Chief of the Engineering Division of the Corps of Engineers -- Jacksonville, sent an eight-page letter to Norman W. Arnold, Federal Aviation Administration, Washington, D.C. expressing concerns about the "Preliminary Final Environmental Impact Statement on the Replacement Airport for the Everglades Jetport." The Corps recommended study of other, alternate sites including The Homestead Air Force Base site.

THE 1972 GOVERNOR'S CONFERENCE ON WATER MANAGEMENT

One of the highlights of fiscal year 1971-72 was a special conference on water management called by Governor Reubin O'D. Askew and hosted by the District in September of 1971. About 150 scientists, government and regulatory agency officials and staff, and representatives of the agricultural and conservation community gathered for the conference at the Balmoral Hotel in Bal Harbour.

Dr. John DeGrove of Florida Atlantic University and Professor Arthur Marshall of the University of Miami headed panels. Both were later named to the District Governing Board. Participants were broken down into five groups, and each group considered the same agenda items at about the same time.

"I think this may be one of the most important conferences ever held in Florida," Governor Askew told the conferees. "When I first called for a Conference three months ago, I called for a peace -- between man and the environment. South Florida had a historical natural balance. Today we have America's winter vegetable garden. Yet we have the prospects of a desert. We have had drowning deer and fires in the Glades. More than 50 years ago, there were fresh water springs in Biscayne Bay. Miami now has to go west 10 to 15 miles to get water. Again we all know we are to blame".

Askew went on to describe saltwater intrusion problems in Miami, the fierce competition between Everglades National Park, farmers and cities in South Florida for water. "Despite all warnings, we are still dumping wastes into our waterways. Some say Lake Okeechobee is eutrophic. Others say that's not so, that Lake Okeechobee is no worse than other inland waters. But we are concerned about other waters too. There are doubts. We need to recognize the problems and face them."

"This Conference brings together many experts," said Askew. "A recent study shows the Glades lost 40% of its soil between 1912 and 1950, and 60% by 1970. It may be 88% by the year 2000. What will happen to our multi-million dollar farming economy? How are we to prevent muck fires? To deal with drought? To prevent loss of soil? We want as many answers as we can get, not diplomatic statements, but your differing views." Askew asked the participants for their help and advice in answering the questions he posed, to avoid catastrophic mistakes detected too late to be remedied.

Conferees concluded that there was a water crisis in South Florida. Every major water area in the South Florida basin, Everglades National Park, the conservation areas, Lake Okeechobee and the Kissimmee Valley, they said, is steadily deteriorating in quality from a variety of polluting sources. The quantity of water, though potentially adequate for today's demand, cannot now be managed effectively over wet/dry cycles to assure a minimum adequate water supply in extended drought periods.

WATER SUPPLY LINKED TO GROWTH MANAGEMENT

They called for a careful assessment of water demands linked to projected growth. "For an adequate long-range water supply, the State must have an enforceable comprehensive land and water use plan. This plan must be developed immediately. It must be designed to limit increases in population; with the attendant demands on the water supply; to a level that will insure a quality environment.

"Such a management plan would include, as its first objective, a complete inventory and assessment of long-range water resources. The controlling factor in this water resource assessment should be the water supply that can be anticipated in times of shortest supply. A result of this planning effort would be a water budget system based on available resources. This system would serve as a limitation on allowable population increases," the conference report said.

REVERSING WATER QUALITY LOSSES

Deteriorating water quality in the South Florida basin was cited as a far graver threat in the long run than water quantity. "This deterioration stems from the introduction into the basin of pesticides, herbicides, animal and industrial wastes, heavy metals, salt water, sewage and heated waters. Channelization has contributed substantially to the process of deterioration," the report said.

Suggestions for improving water quality included: zoning or acquiring flood plains; reflooding the Kissimmee marshes; a comprehensive treatment program to treat pollutants at the source, for example in agricultural and urban areas, before they enter the water system; phasing out back-pumping into Lake Okeechobee, or requiring effective treatment at the source before back pumping; research and funding to study what to do about recycling water and sewage effluents and solid waste disposal.

LAND-USE RECOMMENDATIONS

Conferees said there should be no further draining of wetlands, swamps, marshes, bogs etc. for any purpose. As an initial step in controlling the drainage of wetlands, it was recommended that Chapter 298 of the Florida Statutes be repealed. Biologically productive wetlands enhance recreation, water storage, aquatic productivity, nutrient removal and aquifer recharge, the report said, and should be preserved. A program to reflood the marshes of the Kissimmee Valley and agricultural lands and marshes not presently in production below Lake Okeechobee was recommended. Pilot projects to provide a clear assessment of the benefits and techniques of reflooding were suggested.

Reversing the steady loss of organic soils -- commonly referred to as muck or muckland in the South Florida Everglades was also cited as critical, with reflooding the primary method for accomplishing this objective. The program should include the acquisition and consolidation of lands by the State in selected areas north of WCA - 3 and/or near WCA - 2 to determine the effect of controlling water levels, filtering pollutants and recycling wastes to build up organic soils. Muck conservation programs should be coordinated and pursued immediately by the Central and Southern Florida Flood Control District and Trustees of the Internal Improvement Trust Fund, the conference report said.

"Even if mucklands are not used for agriculture, their preservation and restoration are necessary to maintain the ecological balance of the South Florida basin. Reestablishment of sawgrass may be the best solution to replenishment of the mucklands. However, other approaches should be considered on an experimental basis, including the use of organic material such as sewage sludge." A minority position held that limited drainage of wetlands to serve a clear public interest, under strict controls, might be justified.

COMPREHENSIVE PLANNING

The South Florida basin can only support a limited number of people if a quality environment is to be maintained, the report said. Development of a comprehensive land and water use plan with enforcement machinery to limit population by the State and appropriate regional agencies, especially in the South Florida region, was recommended. That plan would include an assessment of the quality and quantity of available resources, and set density controls on further development by regions and sub-regions.

GROUND WATER PROTECTION

Localized ground water problems are common in South Florida, and especially severe in South Dade County and portions of Collier and Lee Counties. Ground water contamination and depletion problems include salt water intrusion, uncontrolled drilling of wells, drainage well pollution, inefficient waste water disposal systems, septic tanks and sanitary land fills.

Proposed solutions to ground water problems included: a State Drilling Code, requiring licensing of all wells and well drillers; the purchase or zoning of lands to protect recharge areas; plugging of abandoned artesian wells; secondary controls in major canals to hold higher heads of water; construction of additional salt water intrusion control facilities, except on natural rivers, according to a salinity control line established along the entire South Florida coast; elimination of the disposal of improperly treated waste water; artificial recharge methods which would not impair the quality of the ground water; study to determine if certain canals in the South Dade County area should be filled to improve ground water quality; and the prohibition of deep cuts made into the aquifer at the salt water line which cannot be adequately controlled by salinity barriers to prevent salt water intrusion.

GEOGRAPHIC CONSIDERATIONS

Conferees agreed that the Kissimmee-Okeechobee-Everglades system should be viewed as a whole, with any significant change in water quality or quantity in one part of the system considered in light of its effects on the rest of the system. The specific recommendations for the components of this system were:

The Kissimmee Valley - Pollutants entering the Kissimmee Valley have cumulative adverse effects on water quality in the Kissimmee Chain of Lakes, and in Lake Okeechobee, the conference report said. Therefore, Kissimmee lakes and marshes should be restored to their historic conditions and levels to the greatest extent possible, in order to improve the quality of the water entering Lake Okeechobee. Action should be taken to restore fish resources and wildlife habitats, and contamination by pastured livestock reduced. Techniques should be investigated to increase restoration of selective areas by use of advanced waste disposal and composting materials.

Lake Okeechobee - Recognizing that Lake Okeechobee is the hub of water quantity and quality in South Florida, the most important and overriding consideration should be not only to maintain the present quality of the lake but also to improve it, the report said, with specific assurances that all water inputs into Lake Okeechobee are of high quality. Two primary suggestions to improve the quality of water were to reflood the Kissimmee Valley flood plain, and assure that only high quality water is back pumped into the lake. Other recommendations were: appropriate monitoring and enforcement programs;

a maximum high water level mark of 17-1/2 feet, if that increase would have no adverse effect on the environment of Lake Okeechobee, its water quality or the ecosystem of South Florida; a prohibition of cattle or agricultural activities inside the diked area of the lake, and immediate cancellation of all agricultural and mineral leases inside the diked area; development of alternatives to chemical control of aquatic weeds which are not harmful to the Lake Okeechobee ecosystem; nutrient removal by periodic commercial harvesting of the lake's extensive fish population; nutrient removal by harvesting of aquatic weeds.

Everglades National Park - Water quality and quantity to the Park should be appropriate and adequate to preserve the Park, the report said. In some areas, exotic plants and animals in the Park and throughout the Everglades area should be controlled.

Everglades Outside the Park - Everything possible should be done to retain and enhance those areas in their natural condition, the report said. These water resources should be continuously monitored and controlled since they supply water to all South Florida, including urban areas. A specific objective should be to maintain and restore the sawgrass. Present intrusion of non-public interests should be removed from Conservation Areas 1, 2 and 3, the report said, and all privately owned lands purchased. The Big Cypress area should be publicly owned to the greatest extent possible, and land use controls be established to control development and preserve this area for the public benefit. Other potentially valuable areas to be protected according to the report were the Shark River Slough, its head water areas and the general area near Canal C-111.

OTHER RECOMMENDATIONS

Conferees also recommended some short-term solutions: an inter-agency committee to develop an ecologically sound body of guidelines and policy to be followed in the resolution of short term problems of the region; an educational program to alert the public to the possibilities and consequences of water shortage; controlled burning to protect the natural plant and animal systems, and prevent undesirable build-up of plant materials. Man should be excluded from critical areas in times of drought, and fire laws strictly enforced, according to the report.

Since there is competition for water by agriculture, urban areas, conservation areas, estuaries and the Everglades National Park it was recommended that the total water supply be considered a common resource. Survival of the entire South Florida ecosystem, without sacrificing any segment, should be the prime consideration. It was also recommended that the inter-agency committee propose priorities in its over-all plan. Development of a model water-use priority ordinance for all affected areas, and a series of consumptive controls based on the degree of water shortage was recommended.

An inter-agency committee should develop and maintain close coordination between the U.S. Army Corps of Engineers, the Central and Southern Florida Flood Control District, the Florida Game and Fresh Water Fish Commission, the U.S. Department of the Interior and where appropriate, the Florida Department of Natural Resources -- to establish water levels in Lake Okeechobee and the Conservation Areas and establish flexible regulation and delivery schedules for all water needs in South Florida, the conference report said. Many of the report's recommendations were incorporated into general practice or mandated in later legislation. Conferees in their report made a long list of very specific recommendations. Among them were:

The geographical boundary of the South Florida regional land and water management agency shall be the Kissimmee River Basin, the Okeechobee Basin, the Everglades and the Big Cypress Watershed, including all adjacent coastal and estuarine areas. The regional land and water management agency shall be responsible for managing water quality and quantity for the long term benefit of the environment of the region and the State. The agency shall be responsible for establishing policy and guidelines for such activities as drainage, water use, well drilling, land use, estuary protection, watershed management, flood control and soil conservation.

The regional agency should have all powers necessary to develop and implement the regional land and water use plan including, but not limited to, taxing powers, eminent domain, police powers such as intervention to protect the environment, permits for drainage districts and canals, subpoena and investigative powers and research properly coordinated with other agencies. A law providing for public condemnation of lands for environmental protection is essential to the implementation of the objectives herein presented.

The regional agency shall be required by the State to relate to and coordinate with duly constituted State and regional organizations operating in other functional areas. Finally, it was recognized that present funding for environmental protection must be greatly enlarged to accomplish the common goal of protecting the economic and environmental values of this State.

WATER MANAGERS BEGIN TO IMPLEMENT SUGGESTIONS

The recommendations from this Conference on Water Management would form the base for landmark legislation which would be enacted by the Florida Legislature in 1972. But before that legislation was enacted, the FCD acted on many of the suggestions which arose from this and other conferences and meetings in what had been a busy and productive year for water managers. In September of 1971, a policy was adopted to prohibit the dumping of any new wastewater, or water low in dissolved oxygen or high in suspended solids in any District waters.

In November, in response to a report by the Dade County Grand Jury entitled "Water Crisis," Executive Director Ed Dail issued an appeal for new state legislation to establish a regional agency, with authority for total water management, including all powers necessary to develop and implement the regional land and water use plan recommended by the Governor's Conference on Water Management in South Florida. One conference recommendation was met that month when the District sent out a model municipal ordinance restricting use of water by individuals, business and industry, and municipalities during "emergency situations" to every city in its 18 county area.

The District also began attempts to abolish illegal private permanent camps on public owned lands in the Water Conservation Areas. Although some camps were built on private land, at the time most were on public lands, built under permits obtained from the Florida GFC. FCD attorney Robert Grafton told the Board that State Attorney General Robert Shevin had "ruled the Game Commission doesn't have the authority to issue permits for camps on state lands." The five-man team of ecologists (in August 1970) said such camps in the Everglades were generally harmful to wildlife. But this effort, and other District efforts over the years to remove illegal camps from the Water Conservation Areas were never really successful.

1972 - A YEAR OF LANDMARK LEGISLATION

Three new laws, of major significance for people and natural resources, were enacted by the Legislature in 1972. They were: the Water Resources Act (CHAPTER 72-299); the Florida Comprehensive Planning Act (CHAPTER 72-295) and the Environmental Land and Water Management Act (CHAPTER 72-317).

THE WATER RESOURCES ACT

The Water Resources Act of 1972 established five water management districts within the state, and charged them with a wide range of difficult but important duties and responsibilities. Each District would be led by Governing Boards with nine-members. The existing FCD would become the South Florida Water Management District (SFWMD), and the size of its Board expanded from five to nine members. The District's boundaries were changed, and its responsibilities expanded. With this legislation, the FCD was directed to become a regional agency responsible for all waters within its boundaries -- rather than just the primary system of flood control works created since 1949 by the Corps and the FCD. The District responded to this landmark legislation by establishing new Rules, and formulating a far-reaching regulatory program.

The Water Resources Act, also known as Chapter 373, mandated that a state water-use plan be developed by the Department of Natural Resources, in cooperation with with other state, regional and local governmental bodies. The plan was to include water quality standards and classifications of the Department of Pollution Control.

Five water management districts were created, covering all of Florida, with regional boundaries drawn based on watersheds. They were the Northwest Florida (NFWFMD); the Suwannee River Basin (SRWMD); the St. Johns River Basin (SJRWMD); Southwest Florida (SWFWMD); and South Florida (SFWMD). Each would have a 9 - member Governing Board, with members appointed by the Governor to four-year terms, subject to Senate confirmation. Board members had to live within the District they would serve and would receive no compensation.

The law also specified establishment of a permitting system for consumptive water-uses. The state and districts (WMD) would have authority for management of both surface and underground waters. It required development of plans to meet periods of water shortages.

Funds would be provided by Legislative appropriations to the districts. The Florida Department of Natural Resources (DNR) would allocate funds to each district from state appropriations. The Central and Southern Florida Flood Control District and the Southwest Florida Water Management District, already in existence under prior legislation, were authorized to continue levying ad valorem taxes. New districts were also empowered to levy taxes, if voters approved this by referendum. Part of this act would become effective in 1972; the bulk of it on July 1, 1973.

THE COMPREHENSIVE PLANNING ACT

The Florida State Comprehensive Planning Act of 1972 created a Division of State Planning. The Governor would be the State's chief planning officer. This Division would prepare and revise the "State Comprehensive Plan," a "continuing process" to provide "long-range guidance for the orderly, social, economic, and physical growth of the state." The Division would coordinate its planning activities with federal, state and local government agencies, including regional planning agencies.

The Act allowed the Division of State Planning to establish regional planning boundaries. The Comprehensive Plan would be submitted annually to the Governor and, when approved by him, to the Legislature for approval. An annual progress report on state and regional planning would be furnished to the Governor and then be transmitted to each member of the Legislature by December 31 of each year. The Division of State Planning could hire private consultants or contract with public agencies to conduct research and assist in state planning. This Act would become effective on July 1, 1972.

THE ENVIRONMENTAL LAND AND WATER MANAGEMENT ACT

The Environmental Land and Water Management Act of 1972 authorized the Division of State Planning to designate "areas of critical state concern," or areas where natural resources or historical sites might be jeopardized by development; or where any public works projects (airports, highways and canals) might create serious problems. Regional planning agencies were also empowered to recommend areas of critical state concern. No more than 5% of the land in Florida could be designated to be in this category.

Once a designation was made -- the law said -- local interests (such as county governments) have six months to come up with a reasonable plan for dealing with concerns. If the local interests do not come up with a plan, or if their plan is deemed unsatisfactory by the Governor and Cabinet, the State can take over and specify principles to guide development of solutions. If a local plan is satisfactory, the State can drop the designation "area of critical state concern."

The Act also specifies there may be "Developments of Regional Impact (DRI)," defined as developments affecting citizens of more than one county, which would be subject to state and regional governmental review and regulation. The Act provides for public hearings and appeal procedures, allowing appeals by either developers or local governmental bodies.

The DRI designation should be automatically initiated by developers, or by public or private agencies. The Act also created an Environmental Land Management Study Committee (ELMS), with 15 members -- nine to be appointed by the Governor, and three each by the President of the Senate and the Speaker of the House. The ELMS committee would study land resources and management, and submit to the Governor and Legislature recommendations for new laws, as needed. This Act would also become effective July 1, 1972.

SIX NEW SFWMD BOARD MEMBERS APPOINTED

In January of 1972, Governor Askew reappointed Board Chairman Padrick to another three year term. Askew also appointed six new Governing Board members, in late August and early September 1972, who would be charged with leading the implementation of new state legislation expanding the responsibilities of water management. They were: John DeGrove; Arthur R. Marshall; R. Emmett McTigue; Buckner L. Pratt; William J. Scarborough and J.R. (Jack) Spratt.

Dr. John M. DeGrove was the Dean of the College of Social Sciences, at Florida Atlantic University since July 1, 1968. A native of St. Augustine, he earned his B.A. degree at Rollins College, his M.A. at Emory University, and his Ph.D. at the University of North Carolina. DeGrove's Masters Thesis study

centered on the Trustees of the Internal Improvement Trust Fund, and his Doctoral Thesis was a study of the Central and Southern Florida Flood Control District -- illustrating a long-lived interest in policy and administration in natural resources.

DeGrove had also been on the faculty of the University of Florida for six years, prior to moving to FAU. DeGrove had acted as a consultant and advisor to state and local governments in Florida and other states; was Vice Chairman of the Palm Beach County Charter Commission; and was a member of the Planning and Zoning Board in Boca Raton.

He was also Chairman of the Governor's September 1971 Conference on Water Management in South Florida; the Governor's Task Force on Land Use (1971-72); the Governor's Local Government Study Commission (1972-74); and the Governor's Conference on Growth and the Environment (1973). DeGrove was also the Director of the FAU-FIU Joint Center for Environmental and Urban Problems, at Fort Lauderdale. He'd served on the President's Commission on Urban Problems in 1967, and starting in 1973, served as the Florida Monitor for the Brookings Institution. DeGrove would serve on the Water Management District's Board until 1978.

Arthur R. Marshall was the Director of Applied Ecology at the Center for Urban Studies, University of Miami. In September 1972, he was honored as Conservationist of the Year by the Florida Wildlife Federation. He had a B.S. in biology from the University of Florida and a Masters in marine fisheries from the University of Miami. From 1955-70, Marshall was employed by the federal government. He began as a fishery biologist with the Bureau of Sport Fisheries and Wildlife, and eventually would become the Florida Coordinator for the Department of Interior (1969-70). Marshall joined the University of Miami in 1970. The Florida Audubon Society named him Conservationist of the Year in 1969; and the next year won the Governor's Conservation Award. He was the program coordinator for the Governor's Conference on Water Management in South Florida; and a member of the Governor's Task Force on Legislation, 1971-72. Some people called Marshall Florida's best known ecologist. He would serve on the SFWMD Board until June 29, 1973.

R. Emmett McTigue, a Fort Lauderdale realtor and a native Floridian, was a graduate of the University of Miami. He was president of M.R. McTigue and Company, a Fort Lauderdale real estate firm established in 1925. McTigue had been the Chairman of the Broward County Planning and Zoning Board since 1963; and also served on about 20 other local government boards, committees and study commissions. McTigue developed the first tropical tree farm in the nation, as an experiment to assist the Florida Forest Service. He would serve on the SFWMD Board until July of 1975.

Buckner L. Pratt, a conservationist and sportsman, was a native of Miami and a member of the Airboat Association of Florida, the Florida Wildlife Federation and the National Wildlife Federation. Pratt had been involved with the outdoors all his life. He was among the first groups of Boy Scouts to journey into the Everglades on a "Survival Camp" where he lived off the land. As an Eagle Scout, he was President of his Explorer Post, with most outdoor activities held in the "River of Grass." At the University of Florida, he was an ROTC flight leader, and later served with the U.S. Air Force, from 1964 to 1970. During the 1972 legislative session, Pratt worked with wildlife groups on environmental and conservation legislation. He would serve on the Board until July 31, 1975.

William J. Scarborough of Lake Placid was another native Floridian. A cattleman all his life, when appointed he was the president of Scarborough and Sons Ranch, Inc. His businesses involved livestock and citrus in Highlands, De Soto and Hardee Counties. He was also a member of the Highlands County Farm Bureau, Highlands County Cattlemen's Association, of the Highlands County Farm Bureau, Highlands County Cattlemen's Association, Florida Citrus Mutual, American National Cattlemen's Association and the International Trade Council. His educational background includes Hardee County public schools and Georgia Military College. Hobbies were hunting, fishing and traveling. Scarborough would serve on the Board until September of 1979.

J.R. (Jack) Spratt of La Belle, a former State Representative in the Florida Legislature, was the president of Alico Land Development Company. Born in North Carolina, he worked for 13 years with the North Carolina Department of Conservation and Development, during which time he was District Forester, Forest Inspector and Assistant State Forester. He earned a Bachelor of Science degree in forestry, from North Carolina State College. Following service in the Navy in World War II, in 1948 Spratt moved to Florida. He was a member of the Hendry County School Board for six years; served two years as chairman of the Hendry County Improvement Authority and two years as a member of the five-county Advisory Committee for Edison Junior College. Spratt was also a member of the Florida Forestry Association, a director of the State Chamber of Commerce, vice president and director of the Water Users Association of Florida, and for 19 years was chairman of the Hendry County Water Conservation Committee.

The remaining three members of the 1972/73 Governing Board were Chairman Bob Clark, Vice Chairman "Mutt" Thomas and Bob Padrick. Chairman Clark in the Annual Report for 1972-73 noted that "the FCD has altered its organizational structure and broadened its horizons to meet new regional environmental responsibilities...under requirements of the Water Resources Act of 1972 and the Land and Water Management Act of 1972."

A PROGRESS REPORT ON WATER MANAGEMENT

A report by the U. S. Geological Survey documented the effectiveness of the FCD's efforts since 1949. The report showed that water conservation in South Florida has been significantly improved; that outflows of fresh water to the ocean from major east coast canals have been cut back as much as 25%; and salt water intrusion had been blocked and returned seaward. In addition, flows of fresh water to Everglades National Park had more than doubled on an average annual basis since 1962, compared to the period from 1941 to 1962; and major flood damages in urban areas had been prevented.

As FY 1971/72 drew to a close, the District awarded a \$2.8 million contract for construction of the first phase of a remote control communications and supervisory water control system. The first phase of this advanced telemetry system, to be linked to the FCD's computers, was expected to be operable in three years. The system, designed to use sensors as electronic eyes and ears to tell the District such things as water levels, wind velocities, amounts of rainfall, tidal changes, water temperature and salt content, would cover Palm Beach, Broward, Dade and a portion of Hendry Counties. During emergencies, control structures could be opened or closed at the command of an electronic impulse, so that water at any point in the system could be maintained at safe levels.

1973 -- PROBLEMS ARISE WITH C-51

In March 1973, the SFWMD asked the Division of State Planning (DSP) to designate an 89,000 acre area of the West Palm Beach Canal (C-51) as an Area of Critical State Concern. The area is west of Florida's Turnpike, in eastern Palm Beach County. The Board had already requested funds for purchase of equipment to backpump water from C-51 into WCA-1, rather than allow the water to be wasted to the ocean. The Florida Cabinet deferred decision on release of the funds until assurances could be given that uncontrolled growth and degradation of water quality would not result from the project.

The DSP, in a study report, cited dangers and potential problems in the C-51 basin: increased flooding problems; increased need for expenditure of state and federal funds for drainage; degraded water quality; and reduced potable groundwater. The report said these dangers could be alleviated or mitigated with proper planning and development controls in the study area. But the Division did not recommend the designation of an Area of Critical State Concern. Instead it proposed that state, regional and local officials collectively develop a planning and implementation program capable of achieving individual and mutual objectives in the study area. If that effort did not produce a workable plan, the DSP said it would reconsider the possibility of recommending critical concern designation.

The Corps built a new, large spillway and dam near U.S. 1 to replace the old, antiquated Everglades Drainage District structure, which dated from about 1917. Sections of the canal were excavated under free-digging contracts, and some of the material was used for city road beds. And the District built a temporary, intermediate water control structure near State Road 7. Those construction projects proved only temporary solutions. Over the years, the District has continuously wrestled with C-51 problems. On its 40th anniversary, the District would find itself still working to resolve the problems of C-51 canal and tributary areas.

WCA-2 DRAWDOWN CONDUCTED

A drawdown of Water Conservation Area 2A was conducted in fiscal year 1972-73 to restore the balance of nature. Everglades ecology in its natural state is based on alternate periods of flooding and drying. The drying process in WCA-2A, a 150-square-mile portion of Everglades, was virtually eliminated a decade earlier -- to conform to a water regulation schedule designed to provide for water supply and flood prevention. Consequently, the southern four-fifths of WCA-2A had been wet for approximately 10 years without substantial drying. As a result, bottom sediments from 10 to 14 inches deep developed. In times of low water, these sediments triggered fish kills and caused undesirable vegetative changes in the historic ecology. Beakrush and maidencane, which had been plentiful in the 1950s, disappeared, and there was a major reduction of spikerush. White water lily and bladderwort flourished.

During a drawdown, most of the thickly silted bottom would be exposed to air and sunlight for at least 60 days, in order to oxidize and compact the sludge into solid soil. This plan was supported at a public hearing by environmentally oriented federal and state agencies, private conservation and sportsmen's organizations. It was also approved by the State Cabinet, sitting as the Board of Trustees of the Internal Improvement Trust Fund, and the Florida Game and Fresh Water Fish Commission.

The drawdown was approved after District hydrologists and the U.S. Geological Survey said it would not conflict with the District's ability to meet the water demands of the urban east coast in the dry season. Of approximately 95,000 acre feet (AF) moved from WCA-2A, about 10,000 AF were placed in WCA-2B, and the balance in WCA-3. Biologists documented the sludge compaction, and analyzed samples for nutrient content before and after the drawdown. The drawdown ended in June 1973, and results appeared encouraging. Vegetation studies would continue, as would studies of the expansion rate of many species of small fish, and any repopulation of the marsh by game and food fishes. Another study would document the return of the apple snail, food of the Everglade kite. Algal studies were being pursued in 1973 to determine their function in water chemistry. With the success of this experimental drawdown, others would follow.

OTHER WATER QUALITY STUDIES

An experimental project set in the Boney Marsh served to answer questions about nutrient pollution sources, and the ability of marshes to cleanse nutrients. The Kissimmee Valley test site was established by the Environmental Sciences Division in FY 1973-74, to determine the role of the marsh in removing nutrients from surface water. To evaluate alternative management measures, water levels were artificially fluctuated. There were two separate study areas: one to show nutrient input provided primarily by rainfall, with little overland flow; and a second to check continuous nutrient input resulting from overland flow of pumped river water in addition to rainfall. The District built dikes around the marsh, and interior dikes to separate the two test areas at a cost of \$104,872.

In 1974, two 15,000 GPM pumping stations, and three sheet pile weirs with gated structures to control the water in the marsh were constructed. Inflow and outflow points were studied, where stages could be controlled and monitored. An annual fluctuating water regime, resembling average conditions before channelization, was maintained in each area. The annual fluctuations included drawdown and reflooding once a year.

DISTRICT TAX RATE CONTINUES TO DECLINE

In August 1973, the third consecutive reduction of the District's ad valorem tax millage was approved. The millage was set at .485, or 48-1/2 cents per \$1000 of assessed real property value, a reduction of 6.7% from the previous year's .52 mill. It meant that the owner of a \$20,000 home, with homestead exemption, paid less than \$7.28 or 60 cents a month, for the services of the FCD. The year's levy covered a period of 15 months instead of the normal 12, because an Act of the Legislature changed the start of the fiscal year from July 1 to October 1. In 1971 the millage was .59; and in 1972 the millage was .53.

Chairman Bob Clark was reappointed, and Dr. John DeGrove was named Vice-Chairman. During the fiscal year, one new member was named to the Board, and four others reappointed by Governor Askew.

Dr. Claude O. Godwin, a Titusville dentist, was named to the Board to replace Arthur Marshall, who resigned after moving out of the District. Board members called Godwin "The Tooth Fairy." Bob Clark, "Mutt" Thomas, Jack Spratt and Bob Padrick were reappointed for additional three-year terms. These were to be the last Board appointments to three-year terms. Beginning in 1975, all Board terms would be four years.

In anticipation of the District's 25th anniversary, the Board passed a resolution early in fiscal 1973-74 requesting the Congress to change the name of Pumping Station S-5A to the W. Turner Wallis Pumping Station, in honor of the District's first executive director. On May 6, 1974, Congress signed into law (Public Law 93-284) the bill that officially changed the name of the station.

On July 13, 1974, just one day past the 25th anniversary of the first Governing Board meeting, more than 700 people -- including Congressman Paul Rogers --gathered for a dedication ceremony at Twenty Mile Bend. The W. Turner Wallis Pumping Station was completed in May 1955 and is still the largest low-level pumping station in the world, with the ability to pump 2.1 million gallons of water per minute into WCA-1.

NEW PERMITTING REQUIREMENTS ADOPTED

Much of 1973-74 was spent drafting rules and regulations for consumptive water-use permit requirements. Frank E. Maloney, a professor of law and former Dean of the Holland Law Center at the University of Florida, was called on to help formulate regulations. Maloney was one of the outstanding authorities in the country on water law: his "Model Water Code" was used as a pattern for the rules put into effect by the District.

At the same time engineers, utility companies, local drainage districts, agricultural interests, municipalities and other major water-users were contacted and asked for input as to rules and regulations, forms and procedures to be used in issuing permits. Eight public hearings were held throughout the District, followed by more revisions. On March 1, 1974, the newly-drafted rules and regulations became effective.

Under these regulations, wells larger than two inches, canals, reservoirs, ponds, lakes, rivers, impoundments, dams, dikes and pumps were all covered by the permitting system. Anyone using more than 100,000 gallons of water per day would have to come to the District for permission to use that water. Permits would be issued or denied on the basis of "reasonable-beneficial use," which includes "water in such quantity as is necessary for economic and efficient utilization, for a purpose and in a manner which is both reasonable and consistent with the public interest," according to the 1972 Water Resources Act on which the rule revisions were based.

EXECUTIVE DIRECTOR DAIL "PASSES THE TORCH"

The SFWMD Board held detailed discussions all through the year about the District's goals and objectives. The Board reached a consensus that priority should be given to water conservation and water supply. Flood control would still be provided, but for remedial purposes, not to encourage development.

"When people realized the effects of growth that was unchecked and unrestrained, the agency toned down its drainage-for-development program," Executive Director Dail told The Palm Beach Post in 1974.

In September of that year, Ed Dail told the Board he would be going to Toronto and issued the following Memorandum on September 19, 1974, to Department Heads and District Counsel, "Subject: Appointment of Acting Executive Director:

"I will be leaving the office on Friday, September 20, 1974, to have a long awaited operation. Mr. Jack Maloy will serve as Acting Executive Director during my absence. Matters requiring the signature of the Secretary (rather than the Executive Director) will be given to Mr. Thomas Huser, Assistant Secretary, for Execution." It was signed G.E. Dail, Jr., Executive Director. Dail returned to the Board in November, and announced his resignation because of health problems -- effective January 1975.

In January 1975 the Board appointed John R. Maloy Executive Director. Maloy had worked for the District since 1965 and had been an engineer in the District's Hydraulics and Hydrology Division. He was past chairman of the Palm Beach County Area Planning Board and also served on the Governor's Land Use Planning Task Force, which drafted bills that later evolved into the Environmental Land and Water Management Act and the Water Resources Act, both passed in 1972.

On December 4, 1988, one day after Dail's death, the Palm Beach Post wrote:

"Mr. Dail had a key role in administering 1972 state laws that made the district the most powerful regional growth-control organization in the state. Working under five different governors, Dail was credited by many with taking the District from an obscure drainage agency to a major growth control agency with broad powers over flood control and water conservation projects. He was 56 when he resigned as executive director, but stayed on several years to manage development of the district's long-range water plan.

"When Mr. Dail was named to the job in 1959, the agency was known as the Central and Southern Florida Flood Control District and had only 140 employees. Mr. Dail and two secretaries made up the agency's entire administrative section. Today, (December 1988), with an annual budget of more than \$150 million, the district is considering a \$120 million series of projects to repair and upgrade South Florida's water system."

PUBLIC EDUCATION EFFORTS

"A Living Lake," a 14-minute documentary about Lake Okeechobee and the Kissimmee River was produced by the District in 1974. Prints of this and other District films were distributed to TV stations nationwide by the Department of Commerce in Tallahassee. The films were shown on 1,149 TV stations in the nation, to an estimated audience of 50,328,000. The State Film Library also provided copies of District films to 2,525 schools and civic groups with an audience of 298,000. It was estimated that in 1975 and 76, more than 54 million people saw the "FCD Story" through the District's public information program. While most people saw District films on television, more than 730,000 received their information from printed publications produced by the District and by films shown to schools, civic and environmental groups and public speaking engagements by District employees.

KISSIMMEE - OKEECHOBEE STUDIES RELEASED

In March 1975, the FCD released results of a three year intensive hydrologic and environmental study of Lake Okeechobee and the Kissimmee River. Many theories about Lake Okeechobee's reported eutrophication were misleading or false, the study report said. The report concluded there had been no basic change in the Lake's quality since the U.S. Geological Survey Study completed five years earlier. The scientific conclusions indicated the Lake was in an early eutrophic state, that is, rich in nutrients, principally phosphorus and nitrogen. Water flowing into the Lake carries these nutrients which promote the growth of microscopic organisms.

The report detailed the problems of the area and made definite recommendations to improve water quality. Immediate and affirmative water quality management action should take place, the report said, in three areas: the Chandler Slough and the south portion of the Kissimmee River; Taylor Creek and Nubbin Slough; and that portion of the Everglades Agricultural Area tributary to Pumping Stations 2 and 3.

The study indicated that man's activities in the Upper Basin, above the point where Lake Kissimmee enters the river, did not contribute to nutrient problems in the Lake -- in contrast to earlier statements. Instead, the report said, the primary source of phosphorus into the lake was from a 220 square mile area beginning at the south end of the river. For example, Taylor Creek and Nubbin Slough provide only 7% of the total runoff to the Lake, but in that 7% is about 40% of the Lake's phosphorus inflow -- close to twice the amount contributed by the Kissimmee River. The source of these nutrients is predominantly animal waste. In these two areas, the report recommended reworking existing farm drainage systems, to provide greater retention of nutrient-laden flows. Additional holding lagoons were recommended for dairy barns, and greater dispersal of dairy herds.

The report proposed that the lower 1,000 acres of Chandler Slough be maintained as a marsh system. It also recommended that water levels be raised upstream of several structures in the wet season, to provide an additional 10,000 acres of marshland. Raising and lowering marsh water-levels would benefit plants and wildlife, the report said.

At the south end of the Lake, the study focused on nitrogen inflows to the lake from agricultural areas in times of heavy rainfall. The report recommended reducing runoff from the mucklands. Constricted sections of the Miami and North New River Canals would have to be enlarged to allow much of the runoff to be moved south into the WCAs, rather than into the lake. Some portion of the runoff could also be stored in the Holey Land, a proposed 42-square-mile tract between the Miami and North New River Canals and eventually be recycled back into the mucklands for irrigation during the dry season.

"Thirty to forty percent of the entire agricultural area's average dry season supplemental water demands could be met from this storage, thus providing for an internal recycling of this enriched water," said W.V. Storch, then Director of Resource Planning.

1975 - 76 DISTRICT GROWTH ACCELERATES

In August 1975, Governor Askew appointed two new members to the Board to replace Buckner Pratt and R. Emmett McTigue, and reappointed three others to four-year terms. The new appointees were Hardy Matheson, a Miami attorney and former Dade County Commissioner, and Ben Shepard of Hialeah, an electrical contractor and a past Dade County Commissioner. Dr. John DeGrove, William Scarborough and Dr. Claude Godwin were reappointed.

As the District grew to meet increasing demands, it began to outgrow the original building on Gun Club Road, and staff were scattered in separate office sites. Construction of a new administrative headquarters began in 1974 and was completed in November 1975. This construction added 50,000 square feet of space to the existing building on Gun Club Road.

By December 1975 all offices were housed under one roof for the first time in years. The old and new sections of the headquarters building cover some 95,000 square feet, providing working space for more than 300 employees. The last Governing Board meeting at the old headquarters building, at 901 Evernia Street, West Palm Beach, was in November 1975. The first Board meeting in the new headquarters on Gun Club Road was in December 1975.

Two major goals dominated construction efforts in fiscal years 1975 and 1976: giving Lake Okeechobee the ability to hold two more feet of water, and securing Dade County's water supply -- while making more water available to Everglades National Park -- by making changes and improvements to existing

structures. Projects completed toward these ends in FY 1975/76 included: work on C-21, LD-1 and LD-3, connector canals, with S-169 and S-235, in the Clewiston-Moore Haven area; improvement on C-4 (Tamiami Canal); structures on C-5 (Comfort Canal); and an overall plan for Dade County salinity control.

With work at Moore Haven to prevent erosion along the city's waterfront and on the Port Mayaca Lock and Dam (S-308) -- a \$13.4 million project at the mouth of the St. Lucie Canal -- the last major project work necessary to raise levels in the lake was complete.

During this period, new construction starts included a \$2.9 million contract to enlarge the L-29 Borrow Canal; a \$2 million contract to enlarge L-31 Canal; and a \$688,000 contract for reconstruction of S-154, west of Okeechobee City. All these contracts were part of the overall Project and were financed with 80% federal money and a matching 20% paid by the State of Florida.

DISTRICT RECREATIONAL FACILITIES EXPAND

A number of recreation projects advanced in 1975-76. Southport Park, a 32-acre park at the south end of Lake Tohopekaliga, about 20 miles south of Kissimmee, was dedicated in 1975. Facilities at the Okee-Tantie Recreation Area were expanded, and 115 new campsites were added. This brought the number of sites available to 229. The Belle Glade Recreation Area on Torry Island was also improved. Total work on this project was expected to take three to five years. The rebuilding project was necessary due to the scheduled raising of Lake Okeechobee to provide more fresh water for the people of South Florida. Under the new schedule, the park marina would be under water at certain times of the year.

Other recreation programs included: the Snake Creek Bikeway, a bike path along Snake Creek Canal (C-9) which runs from Northeast 199th Street southeast, along the canal to West Dixie Highway, and north to Greynolds Park. The Clewiston Marina improvements included construction of a new boat basin, launching and parking areas, and a multi-lane launching ramp with loading piers -- to replace the launching area on the Industrial Canal, which was eliminated during construction of Canal 21. Hunter parking areas were built along Levee 6 to provide parking space for hunters utilizing the Brown's Farm Wildlife Management Area, following a formal request by the Everglades Coordinating Council, a coalition of South Florida sportsmen's clubs. The project was supported by the Florida GFC and the Everglades Recreational Planning Board, and was one of the recommended work items set forth in the Everglades Recreation Plan.

The Lake Harbor Lock and locktender's house, on the Miami Canal at Lake Harbor, were restored as part of the District's and the Florida Department of Natural Resources' Bicentennial efforts. Originally constructed in 1921 by the

Everglades Drainage District, the lock and the canals connected to it were -- for many years -- the only mode of transportation available until roads were built. Vegetables from the rich farmlands around Lake Okeechobee were loaded onto barges at the lock's loading dock and shipped to market. When the Miami Canal was widened in 1957, the lock was no longer used, and construction equipment damaged the concrete wall of the lock. It sat in disrepair until restoration began in 1976. The locktender's home was designated a historical museum.

DEVELOPING A PLAN FOR WATER USE & SUPPLY

During fiscal years 1975 / 76, the District began to implement rules and regulations to protect water supplies by controlling the consumptive uses of water. Early that year, new rules and regulations were adopted for two major water management problem areas: Lake Istokpoga-Indian Prairie; and the St. Lucie County Agricultural Area, including Canals 23, 24 and 25. The rules established a minimum level of 37' (MSL) for Lake Istokpoga and minimum levels for canals, an early drought warning system and water shortage plans.

In St. Lucie County, the rules established minimum flows for Canals 23, 24 and 25 that vary with the time of year. Whenever canal levels reach a designated minimum level, flow from a structure would be suspended until the canal rises above that level. Lower minimum levels for the three canals were established. When water stages reached minimum levels, irrigation withdrawals and downstream releases would be terminated until canals rose above the minimum. In April 1975, at the height of the dry season, the District reduced agricultural withdrawals by 25%. When wet season rains arrived early, the restrictions were lifted.

The Water Use and Supply Development Plan evolved from a broad, undefined concept to a full-scale program. In August 1975 the Board set forth a number of parameters to be considered in all work on the Plan. First, regardless of growth regulation controls imposed by local governments, the water demands of South Florida would increase. The Plan should provide for greater water availability without depending on advanced means, such as desalination and cloud seeding. The alternatives to be evaluated in the Plan included further development of shallow aquifers, forward pumping, backpumping, increased storage in Lake Okeechobee, and deep well injection of fresh water.

One of the highlights of FY 1976 / 77 was completion of the "first draft" of the District's Water Use and Supply Development Plan. Because of the manpower, time and money needed to prepare a detailed plan for all 16 counties simultaneously, the District approached the planning process in

stages, concentrating its efforts on individual planning areas. Dade, Broward, Palm Beach and parts of Hendry and Glades counties comprised the Lower East Coast and Lake Okeechobee Planning Areas, which were addressed in the "first draft." Other Planning Areas in the District would have similar documents as more information was compiled and evaluated.

In July 1976, the Board established a public participation program, so that the public could make comments and suggestions for the Water Use Plan. Fourteen water supply alternatives were developed for public review. They ranged from non-structural concepts, to conventional methods, to advanced technology. They were: Conservation, Regulation, Wellfield Development, Backpumping, Forward Pumping, Additional Water Storage in Lake Okeechobee, Desalination of Brackish Water, Deep Aquifer Storage, Reuse of Waste Water, Weather Modification, Desalination of Sea Water, Additional Water Conservation Areas, Thin Films, and Importation.

Accompanying the alternatives were parameters necessary for evaluating each alternative, such as the amounts of additional water which could be provided, costs and potential environmental impacts.

Ten public workshops on the Plan were held in the five-county area in May and June 1977. The District had delineated some areas where the publics had differing viewpoints. Some of the questions raised: Is the availability of existing and future water supplies to be used to control or accommodate growth? What is an acceptable degree of inconvenience the public is willing to live with, in the event of a drought, or if future water requirements outpace the ability to provide adequate supplies? How much of the existing environmental resources should be traded off to ensure that there are adequate water supplies in the future?

From the 23 hours of dialogue at the workshops and written comments and letters submitted, the District staff was able to discern trends in public preferences even in the earliest phases of the public participation process. At the end of the fiscal year, the letters were still flowing, and it became obvious the public participation program and subsequent Plan recommendations would have to be delayed until the next fiscal year.

LEGISLATION CALLS FOR CONTINUING ADAPTATION

New legislation continually reshaped the District. Laws passed by the state Legislature in 1972 made philosophical changes in the District's goals, and legislation in 1975 and 1976 made physical and practical changes. These changes included final definition of District boundaries, creation of basins within the districts, establishment of new funding authority, and creation of a new state agency -- the Department of Environmental Regulation -- to work with all five water management districts.

A major effort was put forth by the District in 1975 to settle water management district funding issues. The legislature had carefully drawn district boundaries along hydrologic lines, but by doing so had complicated the funding picture. The creation of the districts under the Water Resources Act of 1972 had not dealt with funding. The state had been giving the districts monies from general revenue since 1973, but with the transfer of territory from one district to another, complications began to arise.

The FCD and the Southwest Florida Water Management District had been formed, respectively, in 1949 and 1961. They were given ad valorem taxing powers as part of their enabling legislation. But in 1968 the State Constitution was changed to forbid the automatic authority to levy taxes. Now, a newly created district -- such as the water management districts -- must receive approval from the people they would be taxing, before that authority was given. The 1968 constitutional change did not eliminate the taxing powers of the FCD and SWFWMD, but new water management districts did not have such power. When land was transferred into or out of the older districts, problems arose.

The two older districts faced other questions: what is the propriety of the districts performing new functions, while collecting taxes under the authority of legislation which did not envision funding those uses? To solve the problem, voters were asked to decide if they would be willing to pay property taxes to fund the work of the water management districts. In a referendum on March 9, 1976, the people said they would be willing to pay higher property taxes to support the work of the water management district. That constitutional change re-established the District's authority to tax up to one mill. The legislature set limits on the amount to be taxed up to that one mill cap each fiscal year.

Another law which affected the District was the 1975 Florida Environmental Reorganization Act, passed to consolidate segmented efforts to protect the state's environment. The law abolished the Department of Pollution Control and created the Department of Environmental Regulation (DER).

The new agency took on the work of Pollution Control, and some of the environmental duties of the Department of Natural Resources. For example, the responsibility for conserving, protecting, managing and controlling the waters of the state was transferred from the DNR to DER. As a result, much of the work of the water management districts would come under the eye of the DER.

Although the DER's primary responsibility in water resources was water quality, and the District's responsibility was water quantity, there was a great deal of overlap which needed to be ironed out. Eliminating duplicate permitting was one of the major items the two agencies went to work on.

BASIN BOARD ESTABLISHED

In July 1976, Stanley W. Hole of Naples was sworn in as a 10th Governing Board member. This "tenth" position was to be temporary -- to offer the District assistance in making the transition from old boundaries to those established in Legislation. Hole would serve on the District Board, and as ex-officio chairman of the Big Cypress Basin Board -- which would come into being on January 1, 1977.

Hole was the president and founder of Suboceanic Consultants, Inc. and Stanley W. Hole and Associates - Consulting Engineer/Architects. He had served for 10 years on the Collier County Water Management Board. Hole was also a member of the Governing Board of the Ridge and Lower Gulf Coast Water Management District (which was later absorbed into the South Florida and Southwest Florida Water Management Districts). Hole would serve on the District's Board until 1987.

In September 1976, for the sixth consecutive year, the Governing Board reduced the District's millage. The Board approved a tax rate of .365 mill for fiscal 1976-77. The prior year's millage was .375. The new rate meant a tax bill for water management of \$5.47 per year on a home of \$20,000 assessed valuation, less Homestead exemption. This was about 45 cents per month. The District's 1976-77 budget totaled \$23.2 million. It included money from state and local government agencies as well as from ad valorem taxes. The Board's actions cut the millage 38 percent over the past six years.

The District's Annual Report for fiscal year 1976-77 was dedicated to the late William V. Storch, who served the District for more than 20 years, most of that time as Chief Engineer. He suffered an aneurysm while making a presentation to the Board in November 1976. He died a month later, at Mercy Hospital in Miami. He was 53. Storch's Department and responsibilities were subsequently divided into two new Departments: Resource Planning, under Peter B. Rhoads, and Resource Control, under Richard A. Rogers.

NAME CHANGED TO REFLECT CHANGING RESPONSIBILITIES

On January 1, 1977, the name of the FCD was changed -- to the South Florida Water Management District (SFWMD). The District's boundaries were also changed. The District had lost the Upper St. Johns territory to the St. Johns River WMD, when legislatively-mandated boundary changes were enacted that year. But despite that loss, the South Florida District was enlarged, because boundary changes added more than 1,000 square miles, with large parts of Lee and Monroe Counties, along with Collier County and a portion of Charlotte County. The SFWMD covered 17,400 square miles.

Indian River and Brevard Counties, and parts of Okeechobee, Osceola, Orange, Seminole and Volusia were removed from the District. Those were

transferred to the new St. Johns River Water Management District. Over 25 years, the District expended more than \$35 million on the Upper St. Johns Project and had a fully staffed field station in Melbourne. Now, all the reservoir lands and water control works built in the St. Johns were transferred.

The District had been planning for these changes for years, and most of the mechanical problems of the change had been resolved before the deadline established by the Legislature. Within 60 days, hundreds of identification signs on canals and structures were changed. The "Freddy the Friendly Alligator" FCD symbol on the signs on canals was kept, so the name change would be less confusing. In addition, all forms, stationery and other printed matter would carry both names for at least one year.

BASIN BOARD MEMBERS NAMED

The District was divided into two Basins, in accordance with the 1972 Water Resources Act and 1976 legislation. The Big Cypress Basin included all of Collier County and that portion of Monroe County south of Collier that was not part of the original Flood Control District. The remainder of the District made up the Okeechobee Basin.

Maurice L. Plummer of Fort Myers was appointed to the SFWMD Board in January 1977. He replaced Dr. Godwin of Titusville, who left the Board when the boundaries were changed and his area went into the St. Johns River WMD. Plummer had lived in Fort Myers since 1957, and served on the Fort Myers City Commission from 1964 to 1972. He was a member of the Ridge and Lower Gulf Coast Water Management District from its inception in 1975 to its disbandment at the end of December 1976. He was also a member and past director of the Citizens Advisory Board for the City of Fort Myers, and president of West Coast Insulation, Inc. Plummer would serve on the Board until 1979, when he was killed in an airplane crash.

In addition to ex-officio chairman Stanley Hole, Governor Askew named five members to the new Big Cypress Basin Board. They were: John Price, Jr., Immokalee; William Walters, Marco Island; William Barton, Naples; Bernie Yokel, Naples; and Russell Kiser, Immokalee. Sworn into office at the February District meeting in West Palm Beach, the Basin Board held its first meeting on March 4 at the Collier County Courthouse. Walters was named vice chairman and Yokel secretary. Fred Vidzes was named Basin Administrator; he had been the executive director of the Ridge and Lower Gulf Coast Water Management District.

On September 9, 1977, the new SFWMD Board adopted a budget of \$25.4 million for fiscal year 1977-78, and an overall District millage rate of .105, with an additional .292 mills for the Okeechobee Basin, and .270 mills for the Big Cypress Basin. For most residents of the District, that amounted to .397 mills, or 39.7 cents per \$1,000 of assessed valuation.

1977/78 -- WATER - USE REGULATIONS REFINED

In 1977 the District continued to refine and streamline its water use regulations. Several "general permit" rules were adopted to allow applicants to qualify for a permit without a detailed application being required. The District worked with DER to simplify permit procedures involving both agencies. By the end of the year an applicant could apply to either agency, and that agency would automatically contact the other to initiate the permit process.

With the addition of Florida's Lower West Coast to the District, the regulatory policies of the District became effective January 1, 1977 in that area. They had been in effect in the remainder of the District since 1974. Among other regulatory accomplishments was the development of a rule which dealt with surface water management projects in western Broward and Dade counties, and the western Snake Creek or C-9 Canal Basin.

1978 - REED, GALLAGHER AND HUNDLEY ADDED TO BOARD

On May 11, 1978, three newly appointed Board Members were sworn into office. Nathaniel P. Reed, J. Neil Gallagher and John L. Hundley joined sitting Board members Bob Clark and Bob Padrick, who were both reappointed by Governor Askew to full four-year terms. Clark was reelected Chairman, and Padrick became vice chairman, replacing Dr. DeGrove after his resignation. Other Board members at this time were W.J. Scarborough, Ben Shepard, R.Hardy Matheson, Stanley Hole, and Maurice Plummer.

Reed, of Jupiter Island, had a long career in government service and in environmental protection. He had been appointed Assistant Secretary of the U.S. Department of Interior by President Nixon; and was reappointed by President Ford. In 1977 he resigned, and served on the State of Florida's Constitutional Revision Commission, the Reclaimed Land Committee and was also Chairman of the Coastal Zone Committee. He had also been affiliated with Treasure Coast Planning, the Speaker's Task Forces, and the ELMS Committee. Reed resigned as a Jupiter Island Town Commissioner to take the District Board position. He replaced C.A. (Mutt) Thomas of Lake Harbor, whose term on the Board expired. Earlier, he was a special assistant to Governor Kirk, and founded Florida's Department of Air and Water Pollution Control.

Reed was born in New York City, but grew up in Florida and Connecticut. He graduated from Deerfield Academy and Trinity College, and served in the U.S. Air Force from 1955 to 1960, in Europe, North Africa and the Middle East -- and retired as a Captain in the Air Force. When Reed joined the Board, he was Executive Vice President of the Hobe Sound Company, involved in citrus, private investments and real estate. He was also a director of the National Audubon Society, the Florida Nature Conservancy, the Deerfield Academy, and the National Resource Defense Fund.

Gallagher, of Lake Buena Vista, was Director of Engineering and Construction at Walt Disney World. He replaced Jack Spratt of LaBelle, whose term had expired. Gallagher represented Central Florida interests, including the Kissimmee River Basin, Glades, Okeechobee, Highlands, Polk, Orange and Osceola Counties. He was a member of the American Institute of Plant Engineers. Both Gallagher and Reed were appointed to three-year terms on the Board.

John L. Hundley, of Loxahatchee, President of Hundley Farms, Inc., Pahokee, was appointed to a one-year term. He succeeded Dr. DeGrove, who resigned before the expiration of his term. A graduate of the University of Florida and a native Floridian, Hundley was the director of Pioneer Growers CO-OP in Belle Glade; a member of the Farm Credit Service (Miami), the Glades Agriculture Service Inc. (Belle Glade) and the Growers Container Cooperative (Leesburg).

WATER QUALITY AGAIN DOMINATES

Water quality was a primary focus of attention throughout 1978. As part of Environmental Protection Agency (EPA) mandated efforts, "208" water quality programs were set in motion. Those programs were designed to: eliminate discharges of pollutants into the country's water by 1985; and achieve water quality levels which would provide protection of fish, shellfish and wildlife in these waters by 1983.

The District supported work of the six local planning agencies designated in the District's 16 counties to handle the 208 program. The agency became involved with all the local 208 programs, except for the Central Florida Regional Planning Council, which took in only a small section of the District. Formal agreements were made with Palm Beach, Broward and Dade Counties and District staff regularly attended technical advisory meetings and offered comments on drafts of plans for projects like Fort Lauderdale's deep well test injection program for sewage effluent, and Lee County's well-plugging program.

The District's regulatory program provided an active means of controlling some sources of pollution. The District wrote requirements into its rules to provide for water quality before storm water enters District canals.

Water quality studies in the Everglades Agricultural Area and Lake Okeechobee fueled ongoing debate. Still, by September of 1978 a new Lake Okeechobee schedule went into effect which allowed seasonal variations from 15.5 to 17.5 feet (MSL). The Corps of Engineers tentatively approved the new schedule for the lake, and could halt regulatory releases if lake stages fell below the schedule. Formation of an Interdisciplinary Task Force to study

problems in Lake Okeechobee was endorsed in December of 1978. The Task Force would work during the two-year life of the DER's forthcoming Temporary Operating Permit (TOP).

The following month, a drawdown of Lake Tohopekaliga was approved, and would begin on December 1, 1978. The lake would be lowered to 49 feet (MSL) by March 1, 1979, be held there till June, and then returned to the regulation schedule of 52 to 55 feet (MSL). Resource Planning Director Pete Rhoads said drawdowns of East Lake Toho and Lakes Cypress, Hatchineha and Kissimmee would probably also be required.

In June of 1978, new Board members were briefed on the WCAs; their history, hydrology and water quality, vegetation, fish and wildlife. District Chief of Environmental Sciences Walt Dineen recommended a new regulatory schedule for WCA-2, to restore conditions to those of the 1950s. Dineen said holding pools of water had destroyed tree islands and changed the ecology to one of slough-aquatics; he wanted to return the WCA to a wet prairie. In October a three-year drawdown of WCA-2A was approved by the SFWMD Board.

But there was opposition to the WCA-2A drawdown. Armed sheriff's deputies stood by at a Special Workshop in October, as more than 100 persons filled the District's auditorium. Opponents successfully delayed it that year. In December, it was reported that the Fourth District Court of Appeal had not yet acted on the District's request to remove a "Stay" on the drawdown.

The Budget for fiscal 1978-79 was \$27,317,257. A tax levy of .397 was set for the District and Okeechobee Basin, the same as the prior year's. The Big Cypress Basin budget was \$581,299, and the combined millage for that basin was .422, which represented an increase from the previous year.

FY 1979 /80

The budget adopted for FY 1979 /80 was \$28 million, only slightly higher than the previous year's budget. The millage was changed from .143 to .160 for the District; from .254 to .262 for the Okeechobee Basin; the Big Cypress millage totaled .382.

For the first time in more than 20 years, layoffs -- a reduction in force (RIF), rather than growth in the number of SFWMD staff occurred. A Committee of the Board and Executive Director was established to consider personnel issues.

Three new Board Members were appointed: Jeanne Bellamy of Coral Gables; Charles L. Crumpton of Miami Shores; and Robert K. Butler of Okeechobee. John Hundley and Stanley Hole were reappointed to full four-year terms.

Jeanne Bellamy, a former Miami Herald editor, was the first woman ever appointed to the District's Board. Bellamy was the director and chairman of the audit committee for Sun Bank of Miami. She had been active in news reporting and editorial writing from 1935 until 1973. In November 1947, she wrote a booklet published by the Miami Herald called "Taming the Everglades" (see Chapter 1). In 1979, she was serving on the Miami-Dade Water and Sewer Authority, was chairman of the board of directors for the National Audubon Society and was the president and a trustee of the Fairchild Tropical Gardens. She had also been active with the Greater Miami Chamber of Commerce, the Florida Society of Editors and other professional and civic associations.

Charles Crumpton, an architect and urban planner, was the director of planning for Carr Smith and Associates of Coral Gables. From 1975 until early 1979, Crumpton was Assistant City Manager for the City of Miami. He was also a visiting lecturer for the University of Miami in Ohio, the University of Miami, Florida and for Miami-Dade Community College. Crumpton, a corporate member of the Board of Governors for the American Planning Association, had served as that association's president, treasurer and secretary. He was also active in the Economic Council for the Greater Miami Chamber of Commerce.

Robert K. Butler, a dairy farmer from Okeechobee County, had been involved in his family's dairy business since 1945 and was the president of Butler Dairy Inc. and Butler Operations Inc., the ranch division of the farm. Butler was also a director of the Independent Dairy Farmers Association, the Commercial Bank of Okeechobee, and the United Feed Co-op Inc. He was involved in a number of civic organizations and served on the Board of Trustees of Okeechobee General Hospital and the Board of Deacons of the Sheridan Hills Baptist Church.

Members who left the Board were W. J. Scarborough, Ben Shepard, R. Hardy Matheson and Maurice Plummer. The four members who would continue to serve on the Board were Chairman Bob Clark, Vice Chairman Bob Padrick, Nat Reed and Neil Gallagher. Executive Director Jack Maloy was appointed Board Secretary; and John Wodraska and Tom Huser were named Assistant Secretaries.

With these changes, the Board returned to its standard number of nine members. A tenth member had been on the Board to help in making the transition from old water management district boundaries to the current ones since 1977.

HEAVY RAINFALL AFFECTS MORE THAN WATER LEVELS

Almost every issue brought before the Board in the first half of FY 1979 /80 was somehow related to above average rainfall received throughout the District, and the problems with rising water levels.

High water stages in Water Conservation Area 3 were, once again, stressing deer herds, hunters said. The levels were actually below regulation, but pressures to lower WCA-3 further by increasing releases to Everglades National Park came from recreation groups, local officials and even the Federal government. The SFWMD resisted those pressures because the WCAs must serve several functions. Water is stored in the WCAs to protect property from flooding in wet seasons and to provide water supplies for the Lower East Coast and the National Park in dry times. The Board concluded that altering WCA-3's schedule without serious thought would not be in the public interest, especially since the schedule was a joint decision in the early 1960s by the Corps, ENP, Florida GFC, the District and others.

During the FY 1979/80 rainy season, Lake Okeechobee levels reached a high of 17.6 feet. Water levels in the lake jumped three feet in one month, from 14.25 to 17.31 feet (MSL). Since one foot of water on the Lake would supply Fort Lauderdale's water needs for a year, the District was in excellent shape going into the dry season. Before the dry season began, Lake Okeechobee regulatory releases were cut back.

Because of the need for regulatory releases from the lake, estuarine studies on the Caloosahatchee River and St. Lucie Canal began. Corps of Engineers studies at the Waterways Experiment Station at Vicksburg on modifications for the Kissimmee River were discussed, as were Upper Kissimmee stages. Osceola and Orange County residents protested high water levels in the Upper Chain of Lakes. The Biscayne Aquifer was declared a "sole source aquifer" by the EPA. At this point, the District was unsure how its water management programs would be impacted by this designation.

FP & L RESERVOIR FAILS

Late on October 30, 1979 the embankment around the Florida Power and Light Company reservoir at Indiantown, in western Martin County, failed. A 15-foot high head of water poured through the broken dike, and 80,000 acre feet of water washed onto and flooded the low-lying farmlands to the west. The District sent men and machines to the scene before daylight, to begin removing the floodwaters. It took several weeks because the land flooded was surrounded by dikes built to keep water from flowing and ponding in the already flooded area. The reservoir water overtopped the eastern levee of this system, causing flooding within the protected area.

Former State Senator Phil Lewis said the first word he heard of the failure came from a railroad engineer, who radioed from his locomotive on the tracks near the scene, and said, "You're not going to believe this, but the train was just flooded off the tracks." Lewis said some people initially wondered if the engineer had been drinking.

This failure began a chain of events which would span several years. Once the initial problem of flood water removal was dealt with, the District had to consider whether or not to allow the reservoir to be rebuilt and refilled. District engineers and consultants worked to discover why the embankment had failed, and how to prevent future failures if the reservoir was allowed to be rebuilt. FPL conducted its own investigation. Two months later, both investigative teams announced the probable cause of the break was most likely underground movement of sand and water or "piping" in the foundation materials of the embankment. FP&L agreed to take every measure feasible to eliminate the possibility of allowing underground materials to shift in any part of the foundation -- by adding drains and other safeguards both inside and outside the reservoir.

The District monitored the reconstruction; inspection crews watched the construction 24 hours a day. It was estimated that nine man-years of District manpower, some of which were charged to FP & L, were devoted to the project. By October of 1980, construction work was almost completed. The Governing Board was trying to determine the best and safest way to refill the reservoir.

FUTURE CHALLENGES FORESHADOWED

In 1979, a Circuit Court dismissed a lawsuit brought by Half-Track Clubs concerning Water Conservation Area 3 and releases into Everglades National Park. The court said that too much water did not constitute pollution. That ruling would be applied to another case concerning C-18 (Hungryland Slough Canal) in the Jupiter area, and Florida Statute 403.412 was ruled unconstitutional.

A "Modified Plan C" for Nicodemus Slough was approved in 1979. This was the last area adjacent to Lake Okeechobee that was still unprotected from the higher lake stages then in effect.

SFWMD Chairman Bob Clark, in the District's Annual Report reiterated the SFWMD's growing commitment to every water-user within its boundaries.

"The South Florida Water Management District remains pledged to a policy of total water management, to insure an adequate supply of good quality water for both man's use and the needs of the natural environment of our 16 county area," he said. That mission would in the next decade become more and more challenging.

CHAPTER 5 - THE 1980s: RESOURCE PROTECTION REQUIRES TOUGH DECISIONS

The 1980s would be an era of expanding responsibilities for the SFWMD; most notably into the protection of estuarine and saltwater systems, and into comprehensive land acquisition programs -- where wetlands, wilderness and water storage lands are taken into "protective custody" -- to preserve the resource for future generations. Other notable District undertakings would embrace these new responsibilities from a perspective of restoration. Those projects would include efforts to restore the Kissimmee River, and to save Lake Okeechobee and the Everglades by reversing processes of the past which had proven destructive.

Shouldering these new responsibilities would require the District to "get tough" -- to use new regulatory and enforcement powers effectively and efficiently to stem the tide of degradation and pollution; to encourage local governments to adopt growth management policies to prevent future degradation or pollution, and improve water quality by using the expertise and knowledge accumulated over the District's first three decades.

The Mission Statement adopted by the SFWMD in the early 1980s embodies the philosophic change which underlies the expanded responsibilities with which water management districts would be entrusted. It realigns the environmental and water quality objectives with the District's traditional responsibilities of water supply and flood control. That statement would become the agency's guidepost and beacon for the 1980s. It says:

The Mission of the South Florida Water Management District is to manage water and related resources for the benefit of the public and in keeping with the needs of the region. The key elements of the Mission are: Environmental protection and enhancement, Water supply, Flood protection and Water quality protection.

The Mission is accomplished through the combined efforts of planning and research, operations and maintenance, community and government relations, land management, regulation and construction. Inherent in the Mission is the responsibility to assist the Public and Government Officials by protecting water resources and by identifying and recommending options for incorporating water resource considerations into land use decisions.

1980 - ISSUES OF THE LATE 1970s "SPILL OVER"

At the start of the decade, the FPL dike repairs received a great deal of attention. On January 11, 1980, the Board approved Phases I and II of the repairs. Work on the dike took 14 months. Both the District and its consultants, Woodward-Clyde Inc. of California, added new safeguards to the reconstruction design. Once it was completed, the District authorized FPL to raise the water level in the rebuilt company reservoir from 28 to 31 feet (MSL), with provisos, and after invoices were paid and sumps calibrated.

The East Everglades, a 242-square mile area bordering Everglades National Park in Dade County -- where a handful of people had chosen to live or farm -- sparked controversy. In the 1980s, the area would repeatedly be under intense development pressure. Land use and water management issues here were complex, and difficult to resolve. The East Everglades Resource Planning Project (EERP) attempted to resolve some of those issues. EERP was a "208" study headed by the Dade County Planning Department and supported by the National Park, the DER, USGS, Dade County's Department of Environmental Resource Management (DERM), and the SFWMD. District concerns about the East Everglades included the impact of development on the Park and the Biscayne Aquifer, and the District's responsibilities at a later date when called on to provide drainage. District staff maintained that this was a wetland area, and drainage projects should be discouraged.

Concerned for the future health of Lake Okeechobee, the District formally instituted a management plan for reducing nutrient flow into the Lake in 1980, as part of the Temporary Operating Permit (TOP) granted to the District by the DER for operation of water control structures around the lake. Known as the Interim Action Plan, it detailed specific criteria for reducing the backpumping of nutrients into the lake from the Everglades Agricultural Area (EAA). The plan called for sampling, monitoring and evaluation of the lake and a broad range of management alternatives.

The EPA's designation of the Biscayne Aquifer as a "sole source water supply" (in October 1979) raised District concerns because the aquifer's recharge area was designated by EPA as the entire South Florida area of the District, and therefore subject to the same controls and possible federal intervention as the aquifer itself. The designation was also opposed by County Commissions within the District, the DER and the Governor's Office.

In February of 1980, the St. Lucie Chamber of Commerce urged support for C-131, a canal authorized by Congress to connect Lake Okeechobee to canals C-23, C-24 and C-25 -- in St. Lucie County. Those canals had no backup water source and regularly ran out of water in dry seasons. This had been a long standing concern and a controversial issue. At that time, St. Lucie County spokesmen wanted all the phosphorus-enriched water they could get, via the proposed C-131, to irrigate citrus groves. In turn, they promised to return more water to Lake Okeechobee on an annual basis than they would draw

from it. But the canal remained only an issue for discussion up to the end of the decade.

Early in 1980, a bill was submitted to the Legislature that would create a "super board" -- with the authority to veto water management districts' decisions, approve budgets, etc. The "super board" would include the five water management district chairmen, the DER Secretary, and Regional Planning Council chairmen. The board was opposed by the SFWMD, based on its belief that yet another layer of government would be detrimental to the progress of water management in Florida. At about the same time, more than 925 acres of District-owned land was donated to the National Park Service for the Big Cypress National Preserve.

C&SF Project construction continued in 1980. A request for federal funding was also approved, and would be submitted at the annual Water Resources Conference in Tallahassee. The request: Federal \$12.5 million; State \$6,417,000; and local \$1,768,000. That year, a navigation lock at Clewiston (S-310) was completed and accepted by the District from the Corps.

After 30 months of intensive in-house study and recommendations by outside consultants about what equipment would best benefit the District's water management operations, a seven-year lease-purchase contract for a \$1 million Control Data Corporation computer system was executed in March of 1980.

In an effort to augment the District's energy conservation program, the District announced that 50% of its fleet of vehicles would be converted to use LP gas; 183 vehicles would be converted in 1980-81; models older than 1978 with more than 50,000 miles would not be converted. The purchase of nine 3,000 gallon tanks, and one 3,000 gallon transport truck -- to refuel field equipment with LP gas -- was also approved. Total cost for this project: \$199,405.

In August of 1980, a Rule on Public Water Supply was adopted. It was one of many Rules adopted and amended month after month by the Board, in carrying out its duties under Chapter 373. This same month the District would also be given more responsibility for aquatic weed control. The District would carry out weed control operations under a contract with the Department of Natural Resources (DNR) -- and its program would be funded 100% by state and Federal funds. Eight employees would be added to carry out this new responsibility.

FKAA ABSORBED BY THE SFWMD

Water shortages had become a way of life in the Florida Keys as growth and development overtook the Florida Keys Aqueduct Authority (FKAA) 's ability to provide water. The FKAA had been established to provide water to residents of the Florida Keys. In March of 1980, Florida Governor Bob Graham

had asked the SFWMD if it could change that fact. The Governor asked the District to look into the recurrent water shortages in the Keys and make recommendations to alleviate the problem. After about six weeks study by District staff, recommendations were made. By the close of the 1980 legislative session, legislators put those recommendations into practice in Senate Bill 1382, assigning the nine members of the Board as the FKAA Board. A tenth member, Joseph Pinder of Key West, was also appointed to serve on the FKAA Board.

On June 12, 1980, at an Emergency Governing Board Meeting in Coral Gables, the SFWMD Board took on the duties of the FKAA Board of Directors. Stanley Hole was elected Interim Chairman of the FKAA, Bob Padrick Interim Vice Chairman, and Executive Director Jack Maloy Interim Secretary Treasurer.

The appointment of the District Board to the FKAA was to last for five years -- enough time to give the District a chance to oversee financing, construction and start-up operations for a new pipeline to bring water to the Keys, from Florida City on the mainland in Dade County. By the fall of 1980, the District secured pipeline construction financing, and let bids for the materials and most of the pipeline's construction.

Ground was broken on the pipeline project on September 6, 1980 -- and Governor Graham, several state legislators and other members of federal, state and Monroe County governments attended the ground-breaking ceremony. The District introduced a new mascot for the Keys project at that ceremony -- an "Aqua Duck", characterized as a "friendly, confident and determined duck."

PADRICK / MALOY HONORED FOR 15 YEARS OF SERVICE

Bob Padrick, a Governing Board member since 1965, was honored with a surprise testimonial in August of 1980. Padrick at that point had served longer on a water management board than anyone else in Florida. In a "This is Your Life" style program, former and current Board members and other associates related stories about Padrick's 15 years. Many of the tales were humorous, giving the testimonial the tone of a "roast." He received an award for "Almost Perfect Attendance." Padrick had missed only nine of 238 meetings in 15 years.

Executive Director Jack Maloy was honored in a similar ceremony in November -- where a slide show, "Fifteen Years with Jack Maloy" was presented. The show's theme song: "It's Hard to be Humble."

OTHER FY 1980/81 HIGHLIGHTS

An \$32,880,121 FY 1980/81 budget was adopted in September of 1980. The millage was set at .402 for the District and Okeechobee Basin; and a repayment agreement with the FCAA was approved.

Aubrey L. Burnham of Okeechobee became a member of the Governing Board in November of 1980. He was appointed by Governor Graham to replace Bob Butler, who had resigned in July. Burnham owned and managed Boynton Beach Dairies, Inc., working from Okeechobee. A native of Texas, Burnham had a degree in mechanical engineering from Texas A & M University. Before moving to Florida in 1964, he'd worked as a mechanical engineer for several Texas firms.

The District's first "Shirt-Sleeve Symposium" was held at the Secret Woods Nature Center in Fort Lauderdale in November of 1980. The Symposium brought together federal, state and regional agencies to discuss current studies affecting water resources of the District. Attendees were asked to rate the symposium. Most said it was worthwhile. The District's "Water Management Bulletin" for Winter 1980-81 included pictures from the Symposium, one of which showed Vice Chairman Padrick chatting with noted author and environmentalist Marjory Stoneman Douglas.

In the first phase of a three-part development project, 100 campsites on 25 acres of the proposed 70 acre park were added to the Belle Glade Marina in early 1981. Eventually the excavated area would become a 35 acre lake, suitable for fishing and boating. The project came about when the District raised Lake Okeechobee's storage potential from 15.5 to 17.5 feet (MSL). An agreement between the District and the City of Belle Glade gave the District fee title to the property at no cost, in return for the District's investment in a \$3 million development project. As phases were completed, the recreation area would be leased back to the city for operation.

MICCOSUKEE AGREEMENT REACHED

In a split Governing Board vote, the District became the first state agency to approve a proposed agreement with the Miccosukee Indian Tribe to settle a pending lawsuit involving a long-standing dispute over ownership of a large area of Everglades. Under the proposed agreement, the Tribe would receive \$975,000 in cash, and a perpetual lease on 150,000 acres in WCA-3. They would also receive a 50% claim on any royalties from development of mineral rights owned by the State in those 150,000 acres.

In return, the Tribe accepted the legality of a 1950 Flood Control District easement on 49,200 acres of land within the Miccosukee Reservation, and a right-of-way across their land for construction and maintenance of Alligator

Alley. The Tribe would also drop all further claims to lands held by the State. Fishing, hunting, subsistence agriculture and other traditional Indian activities would be allowed on the 150,000 acres.

But before the final settlement could become a reality, it also had to be approved by the State Department Of Transportation, the Game and Fish Commission, the Governor and Cabinet and the Tribe. Enactment of state and federal laws would also be required to implement the settlement. As a condition of accepting the lease, the District said that the funds for implementation must come from the State's General Fund, and not be the responsibility of the District. By April of 1981, the Cabinet had approved the Miccosukee settlement.

1981 /82 THE DROUGHT - FLOOD CYCLE AT ITS WORST

Lack of rainfall in 1981 brought the worst drought in South Florida's history. Lake Okeechobee water levels fell below 12 feet (MSL) early in the dry season, and continued to fall. In April of 1981, the District requested all South Floridians to voluntarily conserve water. As conditions worsened, mandatory restrictions were put into effect. On May 14, 1981 a Water Shortage was declared, and cutbacks were increased from 10% to 25%. Almost all requests for exemptions to the cutback were denied.

South Floridians looked forward to the coming rainy season for relief. But June, the traditional beginning of the rainy season, failed to live up to expectations. As the month ended, the rainy season still had not begun. The lake continued to drop, and reserves also dwindled in the water conservation areas. In Central Florida, groundwater levels fell and sinkholes developed.

By July 27, Lake Okeechobee levels reached a record low of 9.78 feet (MSL), and were still dropping! Only two days later, it would fall to an all time low of 9.75 feet (MSL). The WCAs had become huge expanses of cracked earth. Lake Istokpoga and the Kissimmee River water levels were far below normal. All of the lakes in the Kissimmee Basin experienced extremely low stages. One statistical analysis showed the severity of the drought was a one-in-400 year event. Although the drought was not as severe in the southern end of the District as in the north, the number of people relying on the limited amount of water exaggerated the condition in the south.

That month, Governor Graham declared the entire southern end of the state to be in a drought disaster, and agreed to furnish some funds for cloud seeding. The cloud seeding project was approved by the District at an Emergency meeting on July 27, 1981. A contract was awarded to Weather Consultants, Inc. Stanley Winn, director of Technical Services, was the District's project director. The first planes were ready to fly on August 4. Costs: District \$264,432, State (25%) \$88,144. Two airplanes made a number of flights over 39 days, and used 4,323 flares according to a report on the cloud seeding

project. It succeeded in bringing some rain to the Kissimmee Valley. This was the second time the District had tried cloud seeding. The first was during the drought of 1971. (See Chapter Four).

Some rain fell in August and September, and gave some respite. But water levels remained precariously low as the 1981-82 dry season approached. Although mandatory restrictions were lifted in September, South Florida was put on notice that they could be reimposed at any moment.

CALL FOR UNIFORM WATER SHORTAGE PLANNING

During the drought, the District encouraged local governments to adopt local ordinances to restrict water use. Unfortunately, different cities had varied the hours when lawn watering was permitted, and many residents were confused. By the time restrictions were lifted, local governments, the media and the public asked the District to set a standard rule for all municipalities, and require everyone to abide by it.

The District developed a Water Shortage Plan which closely followed the State Water Resources Act. Uses are categorized and sources identified, and restrictions were applied only to those uses and sources which were impacted by severe conditions. Desalinized water, recycled water and other water not actually affected by drought would not be restricted. Varying degrees of drought severity were distinguished, and colors were assigned to each stage of drought restriction so they could be readily identified by the public. Industrial user groups such as the nurseries, car washes, utility companies and golf courses were contacted and involved in the development of the Plan.

The District's Water Shortage Plan development process began in October 1981. By November, the District was contemplating renewing restrictions, but some rain fell in November, and gave some breathing room to work on the Plan. For months, South Florida would remain poised on the edge of drought. Meanwhile, farmers around Lake Okeechobee wanted assurances that they would be able to harvest their crops in the spring. Sugarcane, especially, requires a high water table, a requirement no one could guarantee. So the District devised a "supply side water management" program, to mete out water from Lake Okeechobee to farmers. This meant the District could "ration" the supply the lake held, for the Caloosahatchee and St. Lucie Basins and the Everglades Agricultural Area. A formula was devised to provide for fluctuations in irrigation needs.

Each time the District was ready to impose restrictions, rains would come and postpone implementation of the "supply-side program." By April 1982 the Water Shortage Plan was finished, and the District was ready to put it into operation. But by June of 1982 the drought was over, forgotten in a deluge of rain that quickly brought water storage areas up to capacity, and even caused flooding in some places.

DADE COUNTY FLOODING IN THE MIDST OF DROUGHT

There was also flooding in this immoderate time, even in the midst of drought. Less than a month after Lake Okeechobee hit its all time low of 9.75 feet in July of 1981, Tropical Storm Dennis emptied nearly 20 inches of rain on southern Dade County -- yet almost entirely missed the drought stricken Lake Okeechobee basin. The same area received another 24 inches in September. The District found itself dealing with two extremes of nature at the same time: a record drought in the northern and central regions of its jurisdiction; and a record flood in the extreme southern reaches.

So while farmers and homeowners in Palm Beach and Broward Counties were practicing water conservation, their neighbors in southern Dade County were bailing out their homes and watching their avocado groves suffocate under a foot or more of floodwaters. The District was forced to respond to this flooding by opening all water control structures in the South Miami and Homestead area to full discharge capacity. Flooding was so critical that the earthen plug in C-111 near U.S. 1 was removed for only the second time in 12 years -- to allow maximum releases to tidewater.

FLOODS IN EAST EVERGLADES

Dade County's East Everglades -- located south of the Tamiami Trail and west of Levee 31 (the east coast protective levee) -- did not receive the benefits of District flood control because that area was outside the reach of District facilities. Local planners had in the past said the area should be preserved as a wetland and used for aquifer recharge. Nevertheless, about 200 people lived there, and they began calling for flood relief. The Governor declared the East Everglades area to be in a state of emergency.

In October of 1981, the SFWMD Board discussed the Governor's Task Force Recommendations for the East Everglades, and opposed fill for roads and requests for drainage. But on October 19, at an Emergency Meeting at Tavernier, the Board did an about-face and voted to make fill material available to Dade County from spoil banks for road repairs in the East Everglades. The Board's concession was conditioned on the repaired condition not being better than the condition before flooding.

As the 1981-82 dry season dragged on in most parts of the District, the level of Lake Okeechobee continued to hover at the bottom of the charts. Then, within a month's time, the lake level climbed from 10.5 to 13.5 feet (MSL). After 18 months of lower than average rainfall in much of the District, the 1982 rainy season quickly changed everything. From May 23 - June 26, 1982, 22.37 inches -- twice the amount of rain normally received in May and June -- was recorded in LaBelle. The pattern repeated itself in WCA-3.

FLOODING REQUIRES EMERGENCY ACTION

Severe flooding occurred in several parts of the District. One county especially hard hit was Hendry. The Red Cross opened emergency shelters at Clewiston. Many evacuees were residents of the Montura Ranch Estates subdivision, a community southwest of Clewiston. Flooding there was severe because of an inadequate drainage and floodwater reservoir system. A federal emergency task force declared a state of emergency for the area on June 18, 1982, and requested President Reagan to declare a major disaster in the area. Governor Graham also declared Hendry County, and several other counties outside the SFWMD boundaries, flood disaster areas in June.

The Governor also issued an Executive Order empowering the District to "take those limited measures necessary to alleviate the flooding conditions in Hendry County." Almost immediately, crews from all seven District field stations converged on the flood stricken area, and worked day and night to complete changes which would move floodwaters from Hendry County to the Caloosahatchee River, Lake Okeechobee and WCA-3. Local drainage districts and private business concerns cooperated and greatly helped the District with this work. Although some of the work completed from early July to October was intended to be temporary, much of the work remained to create a permanent solution to the perennial flooding problems of this area.

While flood relief work progressed in Hendry County, another area began to draw attention because of high water. On May 1, 1982, the level of Water Conservation Area 3A was two feet below regulation. Then the rains came, and the WCA jumped from 7.7 feet - 11.04 feet by July 19. Roughly 55% of the increase was due to direct rainfall, with the remainder due to inflows from pumping (20%) and gravity flow from the north (25%). Although the water for recharge of South Florida's water supply was welcome, there were also problems associated with these high levels.

There was increased competition by deer and other upland animals for food and dry habitat. On July 8, the Florida Game and Fish Commission announced plans for a special deer hunt to thin the herd. Anti-hunting groups, claiming that the animals should be rescued from the area or left to die a "natural" death, challenged the hunt in court.

In response to this controversy, which received much publicity, Governor Graham appointed an Everglades Wildlife Management Committee. Members included representatives of state and regional agencies, the GFC and the SFWMD. The committee was charged with considering ways to better manage Everglades wildlife in concert with basic water management goals in South Florida. Its findings and recommendations were to be presented to the Governor in 1983.

OTHER HIGHLIGHTS IN 1981/82

The years 1981 and 1982 demonstrated how quickly and unpredictably South Florida can shift from extreme drought to flood, and how well the District was able to respond to the extremes of Nature. Despite the challenge provided by Nature, the District kept on an even keel, responding to the needs generated by both extremes while following a steady course towards its main goal -- the protection of South Florida's fresh water resources.

Interim schedules for the Upper Kissimmee were established in December, after public hearings were held. That month, the District would assume responsibility for storm water quality permitting. Another issue debated and discussed as a result of the uncommon stresses of severe drought and flood was the controversial farming in South Dade County's Frog Pond.

In June of 1981, Art Marshall and the Everglades Coalition called for the District and other agencies to restore sheet flow, dechannelize C-38 (Kissimmee River), and re-distribute population to protect South Florida's environment. In December of 1981, the District reiterated its strong opposition to Jetport Site 14 in Dade County, and began work on a Lake Okeechobee water quality management strategy.

The Board was reorganized in September of 1981. Bob Clark was re-elected Chairman, and Bob Padrick Vice Chairman. Executive Director Jack Maloy was appointed Board Secretary, and John Wodraska and Tom Huser Assistant Secretaries. A 1981/82 budget of \$39,892,000 was adopted, and millages were set: District-wide .115; Okeechobee Basin .243; Big Cypress Basin .108.

SAVE OUR RIVERS LEGISLATION PROVIDES FUNDS FOR PROTECTION THROUGH ACQUISITION

In 1981, the state enacted legislation which would make the large-scale acquisition of lands needed for water storage, flood control, and environmental protection possible. Called the Save Our Rivers (SOR) Act, it would provide funds from the documentary stamp tax on real estate transactions to the state's Water Management Districts through a Trust Fund established to disburse those funds. Thanks to that legislation, the South Florida District was able to make giant strides in acquiring important natural areas. By the time the end of the decade approached, the SFWMD would acquire close to 130,000 acres of land, and have plans to acquire even more acreage for safekeeping in the future.

In that first year, District SOR acquisitions were limited to lands in the Water Conservation Areas. It was estimated in 1981 that \$40 million would be available over the next five years from the state. With the District's \$7.5 million share, a total of \$47.5 million would be available for SOR acquisitions. In November of 1981, District Counsel Bob Grafton outlined a five-year plan for

acquisition. The Plan included: 13 major purchases in the WCAs, which would leave 51,000 acres remaining to be acquired, but in smaller parcels; Lands affected by raising Lake Okeechobee -- the Nicodemus Slough (2,000 acres); Land north of L-59, and west of the Kissimmee River (1200 acres); the Savannahs (34 parcels comprising 850 acres); 18,000 acres behind structures along the Kissimmee River; 17,200 acres in the East Everglades, from the Trust for Public Lands; and the headwaters of the Loxahatchee River in Palm Beach County. The plan was adopted the following month.

WEST COAST CONCERNS

By 1981, Fort Myers had become the fourth largest water user in the 16-county District. To keep pace with that growth, the District opened an area office in the fall of 1981.

The West Coast was dotted with uncontrolled flowing artesian wells. Many of those wells had either deteriorated over time, been improperly constructed or poorly maintained -- degrading fresh water supplies by upward leakage of poor quality water into water table aquifers. District investigations of the problem in Lee County began in 1977. Data on well depths, diameter, casing depth, aquifer zones and the exact point where water was entering wells was collected over several years. It was discovered that more than 5,000 polluted wells needed to be capped. By October 1982, the District and local governments together plugged more than 1,000 wells in Cape Coral, and 150 in Fort Myers and Lee County.

TECHNOLOGY

Time magazine's 1982 "Man of the Year" was not a man at all, but a machine: the computer. This mechanical mind was cited for "having had the most impact on the course of events over the past 12 months." And just as the computer revolutionized business and even the home, it would fuel a revolution of sorts in water and resource management. Every District department and division expanded or initiated its use of computers by 1982.

The primary computer system used by the District at this time was the CDC Cyber 170-720. "Until we got the Cyber we were running on equipment that was 16 years old," said John Lynch, Data Processing Division Director. "Now we're contemporary. This machine can handle everything from printing mailing labels to something as complex as generating a water supply computer model for South Florida."

The Cyber 170-720 system would be upgraded to a Cyber 170-730, and that change would increase the speed of the system from 1.5 million instructions per second to 2.2 million - making the system more practical and usable

throughout the District. A separate computer system would be used for District administration activities, such as payroll, budget and personnel.

The District was moving into the computer age. Use of the Computervision system -- which converted written and numerical information into graphic forms -- made it possible to complete land-use maps for 75% of the land in the District.

In mid 1983, proposed computer and communications systems would include a network of computer terminals, communications systems between terminals and around the U.S.A.; and hardware and software from IBM and MSA. To date, the investment in computer technology would total \$1,265,412. In future years, computers would become an even more vital part of the District's water resource protection ability.

PROFILING SOUTH FLORIDA'S "ARCH PLUMBER"

SFWMD Executive Director Jack Maloy, easily one of the District's most "colorful" representatives, in 1982 made the cover of "Tropic," The Miami Herald's Sunday Supplement. Maloy was pictured standing almost knee deep in Lake Okeechobee, clad in rolled-up green trousers and a loose fitting blue sport shirt with a "Freddy" emblem on it. Blazed across this picture were the words, "THE WATER MAN -- If he stood on this spot two years ago, Jack Maloy would have drowned. But now we are running out of water. And Jack Maloy may have to kill every blade of grass in South Florida to save us."

Inside, the headline read: "THE ARCH PLUMBER OF FLORIDA -- If the gods don't bring us water, this man will -- maybe." The feature was written by Ken Wells, and is excerpted below:

"Moses, by comparison, merely parted the sea. Jack Maloy, an energetic, articulate, irascible Irishman controls the tap to South Florida's water. He presides over 1,400 miles of canals, over pumps so huge they could suck up elephants, over a water control system so vast and expensive it rivals the Tennessee Valley Authority. More than 800 people work for Maloy, from ditch-diggers to machinists to lab-coat Ph.D's with degrees in rare and difficult sciences. They'll collectively spend about \$40 million of your money this year tending the Central and Southern Flood Control Project, moving water around, warding off floods and, nature willing, keeping the great drought at bay.

"So why, you might ask, is Jack Maloy's lawn brown and dying? 'Too damn much to do,' says Maloy, the 48-year-old, \$55,000 a year director of the South Florida Water Management District, an agency known -- not always

affectionately -- as 'Flood Control' to South Florida's old timers.

"For starters, there was a little project to pipe water to the Florida Keys and finance and build a desalination plant in Key West. Then up popped the drought, and \$700 million in public works tottered defenselessly against a predictable lapse of nature.

"Suddenly, Maloy the technocrat had to become Maloy the politician. He never flinched. Last spring he quickly ordered curbs on lawn sprinkling, forced farmers to use less water, compelled utilities to lower their water pressure. Better, he said, to live with dead grass than to suck salt water ineradicably into the well fields.

"But that was last year. This year, after 18 months of perversely dry weather, Lake Okeechobee's giant bucket is threatening to go dry. A catastrophic drought waits in the shadows. And Maloy, this year, could become the most important man in your life.

"He is paid to think the unthinkable: What if it doesn't rain? If it doesn't, Maloy has the power to declare 'Condition Purple,' a mandatory 60% cut in water use. Lawns and crops might survive. If Maloy went beyond that -- and he could -- he'd be ordering the desertification of South Florida: dead lawns, golf courses, gardens, citrus and vegetable crops, a wrecked economy. Part of his job is to make sure that doesn't ever happen. You'd think, with that sort of scenario, Maloy would be a bit pessimistic these days. Nope.

"South Florida gets an annual average of 60 inches of rain a year. That's a lot of water. Those rains did not come last year, but they will come again. We have a saying: 'The difference between drought and flood in South Florida is 24 hours.'

"Jack Maloy walks the wide, pleasant, pastel halls of the district's offices toward the snack bar in search of a recently-acquired passion mandated by diet: Pepsi Light. He rounds a corner and meets a visiting engineer who happens to be an old friend. The friend reaches down and pulls up Maloy's pant cuff. 'Still no socks, huh.' Maloy just grins. Bob Graham, governor, came to town recently and got Maloy's standard, animated lecture on how South Florida's water system works. When Maloy reached to make a point, a naked ankle showed itself between trouser and shoe.

"Hell, we were at some big important meeting in Fort Lauderdale with the district's governing board and all these people, and there was Maloy up on the podium dressed fit to kill -- coat, tie, everything -- and not a damned sign of a sock," says Bill Brannen, the District's field services director who helped put Maloy to work as a district field hand more than 17 years ago. Maloy's socklessness (inevitably, employees give him socks for Christmas; inevitably, he thanks them and never wears them) is legend around the District, as is his penchant for blue jeans and Jimmy Buffett shirts. He's been known to show up for work in a Mickey Mouse T-shirt, occasionally sporting white trousers flecked with hundreds of little green alligators (the alligator is the District's symbol). Above the alligators, tiny print proclaims, perhaps symbolically: 'It's a kroc.'

"Maloy's idea of dressing up is a tropical plaid coat, screaming green polyester trousers and penny loafers -- sans socks, of course. Once, dressed like that, he got to Tallahassee for an important meeting with Department of Environmental Regulation (DER) officials, defending the way he was dressed by complaining that the airlines had lost his suitcase...

"The same October day he stared down angry East Everglades residents and told them South Florida could not waste its valuable water to drain them, he rode out to the rim of Lake Okeechobee to tell sugar cane farmers to live with a lot less water from the grand old lake. Maloy, as he is prone to do, left the gory details to his dutiful staff. But when the questions got ticklish, he moved from the anonymity of an aluminum folding chair on the edge of the crowd to the podium.

"He not only told farmers how bad it was, how bad it might be and how little water they would get; but he also said, 'I'm now having to stand up here and say to you that if you don't cooperate, I'll put you in jail. It's ridiculous and I feel like Big Brother in this situation, but we have to ensure some equity into this situation.' Not a cowboy boot shuffled. It was as if the preacher had spoken and said pain and death were inevitable, and all anybody could think to say was: amen, brother, amen. "Maloy would not leave, however, without administering a little comfort. The East Coast, generally regarded by the farmlands as the center of waste, profligate growth and ungodly notions, would be under its own water restrictions by November, he assured the growers. That hasn't happened yet -- but then it would have been hard to

sell the idea anyway with half of South Dade County under water. But it helped Maloy stroll from the meeting, mission quite accomplished. 'He sure is a sharp ole boy,' twanged one farmer, paying Clewiston's highest compliment.

"Maloy's casualness spills over into the District's monthly governing board meetings, two day affairs that have grown increasingly long, contentious and interesting as South Florida's water supply and growth begin to collide. Years ago, he sat with his staff, down at the low tables below the board's raised dais. Nobody can quite remember when, but gradually Maloy has moved from the low ground to the dais, symbolic center of power. Perched above with the board, he is not oblivious to the political nature of a job to which he was appointed, not elected, by a board itself appointed by the governor. Still, Maloy's demeanor is loose and comfortable. He sits back casually, Styrofoam coffee cup in hand, bifocals perched on his nose, stroking a beard more gray than sandy. Only the most intense debate can keep him from incessant wanderings to the coffee pot. Questions can wait until he gets back to his roost. Answers sometimes get interrupted by puffs on a foot-long cigar.

"He's perfectly content to let his staff run the meeting and do most or all of the talking. John (Woody) Wodraska, his chief assistant, is more standard-issue bureaucrat. A pleasant, soft-spoken Ivy Leaguer, he wears the dark three-piece suits, introduces the agenda items, answers most of the questions. Maloy sits and watches, waiting for trouble. Trouble may mean a staff program suddenly in jeopardy with the board, a notion on Maloy's part that the board is meddling in staff business, or an attack from the outside -- usually some hapless environmentalist or hunter or outside agency bureaucrat come to question the district's wisdom. Outsiders who come to argue unprepared can find Maloy a fierce and withering adversary.

"'The guy is as aggressive as hell,' says one senior official whose agency has clashed frequently with Maloy. 'He's extremely territorial and believes that nobody is qualified to discuss water management issues but his agency. But he's quick and extremely good under pressure. And on top of that, he keeps it on this down-home, folksy level. You almost feel like eating grits.' 'He can talk alright,' says Brannen. 'Jack Maloy didn't just kiss the Blarney Stone. He swallowed it.'

"Employees who are not fiercely loyal to Maloy are as rare as Everglades Kites. They are better paid than most government workers. Benefits have increased dramatically since he took over as executive director in 1975... He attends employee picnics, affably commandeering hamburger grills, plays in employee softball games, affably commanding the pitcher's mound. The District's women employees hold an annual Christmas luncheon, and who should turn up as Santa Claus? Ho, ho, ho, Jack Maloy... 'He's not an autocratic manager in any sense of the imagination,' says the district's Wodraska. 'He subscribes to the philosophy that you get as much rope as you want. You either hang yourself with it, or you build a ladder and get yourself out.' When Jack Maloy was a debate team member at an all-boys Catholic high school on Long Island, the good brothers laid down the law. Prepare both sides of the debate, they admonished, and be prepared to argue either at a moment's notice. Maloy, say his critics, learned all too well.

"But he's a long way these days from Long Island, 23 years beyond Manhattan where, as the dutiful son of a stock broker, he went to work for Bache and Co. at 40 Wall Street. The job and the three-piece suits never took and Maloy, former University of Kentucky football player, ex-Army draftee, had taken on a wife and night school. Responsibility was pressing and opportunity came knocking. Maloy and wife Gladys, a native of West Palm Beach, were invited to the Bahamas to become operators and part owners of a resort. Maloy's New York University engineering degree, 30 hours from completion, would have to wait. It still does.

"The Bahamas proved idyllic, but unprofitable. The Maloys moved to West Palm Beach where a job as a land surveyor for a local developer lasted five years. Maloy rapidly climbed the ladder, but the ladder proved shaky. In 1965, after years of boom, the housing industry went bust. Maloy visited the offices of an obscure agency known as the Central and Southern Florida Flood Control District. He was looking for a dredge and fill permit. He got a job instead.

"'Engineer I: first desk from the beginning of the alley,' Maloy remembers, '\$6,300 a year and I was glad to get it.' Maloy quickly learned that the agency he considered obscure was a sleeping giant. Its de facto leader was an engineering wizard named William V. Storch, who almost singlehandedly was designing the major works of the burgeoning flood control project. On any given day, \$15 million in construction

was underway. The Kissimmee River was being straightened, levees around Lake Okeechobee raised and extended.

"At the same time, the tide imperceptibly was beginning to turn toward environmentalism. The '50s consensus of agricultural barons and the coastal prosperity boosters that had made the project possible had begun to erode. Critics already were springing up here and there to decry all the ditching and draining. Maloy waded into the fray, literally waded the marshes of Lake Okeechobee, the Kissimmee and St. Johns rivers for a few years. He got to know the project from the waterline up, listened intently to Bill Storch, eavesdropped on the politics of water management. Eventually the two formed a team that often awed friend and foe alike.

"The board is chaired by Robert Clark Jr., an outgoing Fort Lauderdale rancher who looks like Clint Eastwood playing Ben Cartwright. Clark, an 11-year district veteran, says Maloy, with his knowledge of the project, has the ability to translate that to plain terms and his sometimes awesome persuasive powers may be the district's greatest current asset. What people forget, he says, is that the district must operate a system for the often contradictory goals of flood protection and water supply, and still not run rough-shod over the environment. That means satisfying a lot of competing interests. 'I don't know where I'd go to replace him,' says Clark.

"Bob Padrick, a Fort Pierce resident and the District's longtime vice-chairman, agrees and dismisses notions that Maloy runs the board. 'A lot of people claim he's too strong and leads the board around,' says Padrick, who's been known to take Maloy publicly to task a time or two. 'I don't subscribe to that. If you've got a good man, he'll be a little bullheaded and strong at times. But if he wasn't, he wouldn't get done what we want done.'

"Padrick remembers when Florida Power and Light's Indiantown reservoir collapsed two years ago, sending 5 feet of water over farms and homes on the eastern edge of Lake Okeechobee. While others fidgeted, Maloy ignored red tape, brought out the draglines and sliced through a federal Corps of Engineers levee to relieve flooding. 'If we had more Jack Maloys in state and federal government, we'd have a heck of a lot more efficient system. We need people like him who are willing to bite the bullet and do the things that have to be done,' Padrick says.

"No doubt about it," adds board member Nat Reed, a former undersecretary of Interior and a wealthy environmentalist who lives in Hobe Sound. 'If you want to get something done and you want it done quickly, Maloy is one of those rare birds in government who can chop through the red tape, make love to a tiger and complete the assignment on time.' But Reed adds a few qualifiers. 'Like all great men, he has faults, some of them serious. He bears a grudge. He's got a memory as long as any Republican elephant. He can be argumentative for the sake of being argumentative. Sometimes he colors the truth. Sometimes even the board feels very frustrated when he takes his own sweet time implementing board policy. But if you can direct Jack, he can slay dragons. I always would like to have him as an ally because he's a potent enemy'..."

STORING STORMWATER THROUGH BACKPUMPING

With the drought of 1981 still a fresh memory, efforts the next year focused on controlled conservation of available water supplies. Early in 1982 construction of a temporary dam on the West Palm Beach Canal was completed. The temporary dam was installed so that higher water tables could be maintained in western Palm Beach County to conserve water. That month, backpumping provided sorely needed water supplies for South Florida's east coast.

Modifications were made to pumping operations at S-5A to allow storm drainage from the basin immediately east of Twenty Mile Bend to be pumped into WCA-1, where the excess waters could be stored. In the North New River Canal basin west of Fort Lauderdale, a \$370,000 construction project with a four-pump operation was implemented to allow backpumping of stormwater to water storage areas." Operation of these two backpumping facilities -- based on 1981 rainy season precipitation -- would result in an addition of from 60,000 to 90,000 acre feet of water to coastal supply reserves," the District reported in 1982. "This additional water supply would satisfy the water needs of Dade County for about two to three months of dry season. An additional benefit will be an increase in rainy season water supplies to Everglades National Park and Florida Bay."

The District also requested Corps participation in the construction of backpumping facilities on the Tamiami Canal and Snake Creek Canal, both in Dade County. Those two projects were expected to cost \$1.5 million. These backpumping operations were not designed to ease flood control problems, but to allow the District to pump excess stormwater into storage to be used to replenish coastal wellfields, raise groundwater stages and deter salt water intrusion.

PROJECT CONSTRUCTION CONTINUES

In the Everglades Agricultural Area, earthen humps were removed from the Miami and North New River canals, giving the District in 1982 the added option of pulling water either north or south, depending on where the greatest need existed. One reason that water can flow north or south is the flatness of the land. From Lake Okeechobee to the southern end of the peninsula, the ground elevation declines only a bit more than one inch per mile. Under natural conditions, sometimes the way that water flows depends on the way the wind blows.

Other construction included a culvert (G-69) in the southwest corner of WCA-3A. When excessive rains in the summer of 1982 pushed stages above an acceptable level, G-69 helped to speed flood discharges. The long-awaited replacement of the Palm Beach Lock (S-155), located at the east end of the West Palm Beach Canal, began in July 1982. The automatic structure has three gates, each 25 by 7.7 feet in size, linked to the District's telemetry system so gates could be opened and closed from District headquarters. The original structure, built in 1917, required the manual removal of flashboards to allow discharge of water. The new structure would let the District respond promptly and effectively to weather conditions. The Corps expected to complete construction of S-155 by December 1984.

FINE-TUNING WATER MANAGEMENT

The 1980s would be marked by refinements of the flood control project already largely in place in South Florida. Structures would be modified or upgraded to meet modern needs. More effective, efficient operational methods would be constantly evolving. As water managers learned more about how the natural system had probably worked, and correlated that knowledge with the structural system set in place in the 1950s, 60s and 70s - they would become better able to integrate the man-made and the natural system. But neither knowledge nor integration came easily. As demands on water managers became greater and systems more complex, more dissenting voices would be raised.

Governor Graham attended a Governing Board Workshop in April of 1982 where three expert witnesses presented evidence concerning the Kissimmee, to refute a Sports Illustrated article, "The Rain Machine," which quoted Dr. Patrick Gannon as saying drainage caused drought. In June, a plan was approved to raise stages in the Kissimmee River Pool 2 feet above optimum, and lower them 1 foot below optimum, seasonally.

In the 1980s, the District would formally cease routine backpumping of floodwater into Lake Okeechobee. A backpumping "Interim Action Plan" was approved in June of 1982, to meet DER requirements for Lake Okeechobee under the Temporary Operating Permit. According to that plan, most of the

rainwater runoff generated in the EAA would be diverted south, to the Water Conservation Area system instead of backpumping it north into Lake Okeechobee. In July, the District's Lake Okeechobee Temporary Operating Permit was extended by the DER until January 10, 1983. An Operating Permit --incorporating the Interim Action Plan already in force--was granted in 1983.

The following month the "South Florida Water Supply Model" -- a computerized digital simulation of 5,600 square miles of the District's water management system -- was completed. "Modeling is the future of water management in South Florida. The model can predict that with normal rainfall Lake Okeechobee will be at such-and-such a point in the future," said Assistant to the Executive Director John Wodraska.

In the midst of the 1982 hurricane season, Dr. Neil Frank of the National Oceanic and Atmospheric Administration (NOAA) stressed the need for working and living in harmony with nature and with current technology. "If you want a 48-hour forecast before landfall, considering average error, it would be somewhere between Key West and Wilmington, Delaware." Frank showed photographs of huge waves and a "storm surge" which he described as "a dome of water with waves on top" from Hurricane Frederic, which struck in 1979.

He showed photos of waves breaking over the tops of trees, and before and after pictures of the destruction of a beach house apartment project, "steps to nowhere," a six story condo which was demolished, and new structures built to replace those that were destroyed. Frank said damage from Hurricane Frederic totalled \$2.3 billion, but was "the cheapest urban renewal project in the country: all the old buildings were swept away at no cost to the taxpayers." He argued that hurricanes perform a useful function: they remove heat from the tropics. "The problem is that man is not living in harmony with nature."

FY 1982 /83 - HIGH WATER REVIVES DORMANT CONTROVERSIES

In September of 1982, the FY 1982/83 budget was adopted: \$44,901,006, and millages set: for the District .134, for the Okeechobee Basin .250, and .085 for the Big Cypress Basin.

The "Lake Okeechobee Water Quality Management Plan" was approved in November of 1982. Included in this plan were the Holeyland and Rotenberger areas in south Palm Beach County, tracts proposed for use as flow-through marshes to cleanse nutrient-rich water. The Holeyland would cover 49.3 square miles and cost \$14,743,000, according to the Corps estimate. Rotenberger, the least costly with a flow-through concept, would cost \$3 million.

By February of 1983, high water conditions prevailed throughout the District. Consequently, the need for and impact of flood discharges to Everglades National Park and the St. Lucie Inlet were heavily debated at that month's Board meeting. Critics of the District's flood relief actions abounded, and champions were scarce.

The complaints were numerous: East Everglades residents were once again flooded; fishery resources in estuaries which had been receiving excess water were in danger; Everglades National Park's environment was being compromised by District actions; the District should adopt a tougher regulatory program. Studies, often with contradictory findings, were presented to push the District in one direction or another.

In its defense Board Chairman Bob Clark said that the South Florida WMD might have its faults but shouldn't be "painted all black." Executive Director Jack Maloy said the District has done a great job in flood control; not so good for fish and wildlife. Board member Nat Reed called for a complete revision of the flood control system even if it costs \$500 million or more.

The following month, Dr. Gary Hendrix of Everglades National Park came to the Board with a list of seven recommended actions to help the Park. They were: fill in the L-28 canal, and remove substantial segments of the levee; fill the L-67 Extension canal and completely remove its levee; divert as much flood water as environmentally acceptable into WCA-3B, immediately north and east of the park; distribute water deliveries from WCA-3 along the full length of the Tamiami Canal, from L-28 to L-30; establish rigorous water quality monitoring; defer any implementation of new drainage districts, such as that proposed in the East Everglades; and field-test a new delivery schedule for ENP, one based on current rainfall and normal runoff, not on upstream water management.

Hendrix termed these "emergency actions" and said the the Park "needed marsh deliveries rather than canal deliveries." He also suggested moving water south to the Park Panhandle, to reduce water released into the Park unseasonally.

At an Emergency Board Meeting in April, after review of the Park's recommendations, an Emergency Order authorized the Executive Director to take immediate action to alleviate current high water conditions in the Park, and order structural modifications to facilitate "a drying out period for ENP during the 1983-84 dry season." Gaps and plugs were placed in L-28, on the west side of WCA-3, to improve flow but retard over-drainage.

In August of 1983, the Relief Program for Everglades National Park was reviewed, and Park Superintendent Jack Morehead termed it "excellent." Jim Garland, of the Corps of Engineers, said work on the project should be completed by the following next spring, before the rainy season.

GOVERNING BOARD SHIFTS

Three new Board members joined the District in August of 1983: Dr. Kathleen Shea Abrams, John Flanigan and Timer Powers.

Dr. Abrams, of Miami Shores, was the associate director of the FAU/FIU Joint Center for Environmental and Urban Problems at Florida International University, and an Associate Research Scholar. Abrams earned her Ph.D. at the University of Florida in 1980. She had been a board member and chairman of the South Florida Regional Planning Council; a member of Governor Graham's Resource Management Task Force (1979-80); a former member of the National Parks Advisory Board. Abrams was also a member of Florida Audubon Society and the Environmental Service Center in Tallahassee. She replaced Jeanne Bellamy, the former Miami Herald editorial writer from Coral Gables, on the Board. Abrams would serve until July 1987.

John Flanigan, of North Palm Beach, was a partner in the West Palm Beach law firm of Moyle, Jones and Flanigan. Flanigan had been a member of the State Hospital Advisory Board (1977-81) and the State Health Coordinating Council (1977-81). He attended Notre Dame University, and earned his law degree from Duke University in 1964. Flanigan replaced Loxahatchee farmer John Hundley. His term would expire in July of 1987.

Timer Powers, of Indiantown, was a former Martin County Commissioner (1964-76). He was instrumental as a commissioner in establishing the Martin County Water Board, architect of environmental protection measures. Powers had been President of the Indiantown Gas Company since 1960. He was a member of the state study commission on water management issues in the 1960s. Powers attended the University of Florida, and earned a Bachelor's degree in agriculture in 1958. He replaced Fort Pierce real estate man Bob Padrick. His term would expire in July 1986.

Two Board members were reappointed: Stanley Hole of Naples and Aubrey Burnham of Okeechobee. Remaining on the Board were Charles Crumpton of Miami Shores, Robert Clark of Fort Lauderdale, Nathaniel P. Reed of Hobe Sound, and Neil Gallagher of Lake Buena Vista. Bob Clark was re-elected as Chairman, Stanley Hole Vice Chairman, and Jack Maloy as Board Secretary. John Wodraska and Tom Huser were re-appointed Assistant Secretaries by the Board.

SAVE OUR EVERGLADES PROGRAM ANNOUNCED

In August of 1983, Florida Governor Bob Graham came to a SFWMD Board meeting to announce a program he called "Save Our Everglades." The Governor's program goal was -- by the year 2000 -- to have the Everglades look more like it did in 1900 than it did in 1982. He came to the right agency. The agency's slogan since 1963 had been "Protector of the Everglades."

The Governor's program called for extensive wetlands restoration and land acquisition, including: Kissimmee River restoration; restoration of the Holey Land and Rotenberger Tracts; and the purchase and restoration of lands in the C-111 Basin. Assistance to Everglades National Park and protection of Lake Okeechobee were also in the plan, as were design improvements to Alligator Alley and Tamiami Trail -- to improve sheet flow. Protection of the Florida panther, through programs in the Big Cypress National Preserve and the Fakahatchee Strand, were also in the plan.

SFWMD plans for restoration of some of the areas in Graham's plan had already begun. In September of 1983, a Test Demonstration Project to restore the Kissimmee River, between S-65B and S-65A, was proposed and approved. Board Vice-Chairman Stanley Hole identified two issues likely to arouse concern about the project: sediment transport and impacts on property owners.

ETHICS QUESTIONED

The ethics of three top District officials received intense scrutiny in 1983 after Frank Caluwe, a former employee of the District, filed complaints against the District with the State Ethics Commission. Caluwe accused Executive Director Jack Maloy, Deputy Director John Wodraska and District Counsel Bob Grafton of unethical conduct.

In a June 16, 1983 article in The Palm Beach Post, Jeffery Kahn reported that:

"South Florida Water Management District Board Atty. Robert Grafton has agreed to return \$12,414 for the 75 days he was paid a state salary in 1979-80 while traveling around the country as the grand exalted ruler of the Elks. Grafton was charged with violating state law by improperly using state property. His case is to be heard today by the Florida Ethics Commission. Commission prosecutor Joseph Lawrence has recommended that the commission accept Grafton's restitution, made in a signed stipulation.

"Also to be heard today are the cases against WMD Executive Director Jack Maloy and Deputy Director John Wodraska. Maloy and Wodraska have been accused of allowing Grafton, then the WMD's chief counsel, to be paid for his Elks' travel time.

"No penalties were recommended against either Maloy or Wodraska. In the stipulation signed by Grafton, Maloy, Wodraska and Lawrence -- Maloy admitted that he should

not have authorized payment for the 75 days that Grafton spent on the road with the Elks. Lawrence recommended that the charges against Wodraska be dismissed. He said Maloy told Wodraska to pay Grafton and that Wodraska's sole involvement was signing Grafton's time sheet.'

"Grafton and Maloy admit they failed to use good judgment and to follow proper procedures in addressing the travels' of Grafton, the stipulation said. "Grafton agreed to make restitution to the WMD within 60 days of the time that the commission agrees to the stipulation. 'Public monies were spent for something of questionable value to the public,' the stipulation said.

"There is no evidence however to support a finding of wrongful intent on the part of the respondents to corruptly use an official position, property or resource or to secure a special privilege or benefit,' the parties said. Grafton said he would not comment on the stipulation until after today's hearing.

"Frank Caluwe, a WMD engineer who was fired July 30, filed the complaint against the three WMD officials. The agency said Caluwe was a malcontent who improperly made accusations against WMD officials. Caluwe said he was fired because he was a whistleblower. A state administrative hearing officer has recommended that the WMD reinstate him with back pay. The WMD is not bound by the recommendation."

In the case of Caluwe vs. SFWMD, co-counsel (Jones and Foster) was selected. The lawsuit named Board members, present and past, six staff members and members of a law firm. The Caluwe case was eventually settled out of court.

FY 1983/84

South Dade farmers in October of 1983 asked the District to lower water levels in the East Glades area and the Frog Pond -- to protect the vegetables, avocados, limes and tomatoes grown there. William G. Earle, a Miami attorney, representing the Dade Farm Bureau, stressed that 50% of U.S. tomatoes come from the Frog Pond seasonally. Earle argued that Congressional authorizations of 1954 and 1965 contemplated farming in the Frog Pond. Executive Director Jack Maloy disagreed. Other farmers spoke. Jack Morehead, Superintendent of Everglades National Park and others appeared before the Board to oppose the farmers' request. "Grow crops somewhere else. Save the Park," Johnny Jones of the Florida Wildlife

Federation said. After much discussion, the request was denied. But this was not the end of clashes between agricultural interests and environmentalists about whose needs should take priority. The disagreement between South Dade farmers and the Park had deep roots in the history of water management, and would be replayed before the Board often in future years.

Two months later, plans for the Kissimmee River Restoration Phase I project -- which would include steel sheet pile weirs with "notches" for navigation, fluctuation of water levels in pools, a tieback at S-65A, and the degradation of an earthen dike to move water from the Boney Marsh onto U.S. Air Force property -- were authorized.

District projects to begin this year, and the funding to implement them included: C-18 (\$500,000); Kissimmee River Demonstration Project (\$2.5 to \$4.5 million); S-10E (\$100,000); Holeyland and Rotenberger tracts (\$7 million -- 75% state 25% WMD); Lake Toho Demonstration (\$50,000); and Hendry County flood relief (\$2 million). Projects to be funded jointly by the Corps of Engineers and the District included: Lake Okeechobee Revetment (\$40 million); Hurricane Gate Replacements (\$12 to \$15 million); ENP Restoration, including the East Everglades (\$5 to \$10 million); Pumping Station S-9 (\$4.5 million); and C-111 (\$25 million).

In September of 1983 the budget and millage for fiscal year 1983-84 was adopted. The budget: \$49,398,863. Millage: District-wide .139, Okeechobee Basin .260, Big Cypress Basin .075. Thus the total for most people in the District (that is, in the Okeechobee Basin) was .399. The levy for the Big Cypress Basin, Collier County, was .209.

MALOY DEPARTURE MARKS THE END OF AN ERA

On December 16, 1983, with little forewarning, Executive Director Jack Maloy resigned his position, effective April 1, 1984.

At a regular, monthly Governing Board Meeting, held out of town at the Flamingo Lodge, at the southern tip of the mainland in Everglades National Park, it seemed to be business as usual. The meeting had begun, and Board Chairman Bob Clark asked: "Are there any additions or deletions to the agenda?"

Maloy jumped up and said, "Mr. Chairman, I have one deletion -- me."

Maloy read a written statement, and cited personal reasons for leaving. He got about half-way through the text, saying he'd worked for the District for 18 years "and it's been like a family to me." Then Maloy paused. "I can't go on," he said. There was a tear in each eye. His footsteps echoed as he walked to the head table and turned in his statement -- there was total silence in the room. Maloy turned and walked down the center aisle, to the back of the

room. Still, no one spoke. He stopped at the exit, turned and said: "I'll be all right in a few minutes." Maloy went out, and the door closed behind him. The silence continued. Everyone seemed to sense that the District had come to the end of a chapter.

Bob Clark broke the silence, and with a heavy voice said: "Well, I guess we'd better proceed with the agenda." Board members took the agenda items one by one, handling them efficiently but with minimal discussion. The meeting started at 1:09 p.m. and was adjourned at 2:40 p.m.

Board member Aubrey Burnham also resigned at this meeting.

The following month, Jack Maloy's resignation was accepted by the Board, and a selection committee to seek a successor to Maloy was named by Board Chairman Bob Clark. Vice-Chairman Stanley Hole was appointed the committee's chairman. Other members were: Neil Gallagher, Timer Powers, John Flanigan and Jack Maloy, with Dr. Abrams as an alternate for Powers. John Wodraska and Tom Huser were appointed Assistant Secretaries. Starting salary for the Executive Director position would be from \$50,000 to \$70,000. Deputy Director John Wodraska was named Acting Executive Director in March.

The following month, Jack Maloy went to work for private industry. On May 26, 1984, The Palm Beach Post ran a story under the headline: "Ex-WMD Chief Joins Agricultural Firm." The next day, May 27, The Miami Herald headlined a story: "Long-time water chief takes job with company with large land holdings."

The Herald story, by staff writers Jill Pollack and Ellyn Ferguson, said in part:

"Jack Maloy, who guided the South Florida Water Management District for 10 years, has traded in retirement plans of bartending and Colorado living for a vice presidency with land magnate A. Duda and Sons Inc., a company whose extensive Florida farm holdings frequently have been irrigated by water controlled by the water district. Maloy, who resigned as the district's executive director April 1, will serve as vice president of A. Duda and Sons' new real estate division. Maloy, who was said to be in Oviedo to look for a home, could not be reached for comment Saturday..."

The Post story, by staff writer Jeffery Kahn, began:

"A. Duda and Sons Inc., a \$200 million Florida agribusiness whose farms often are irrigated by water provided by the South Florida Water Management District, has hired former WMD executive director Jack Maloy as vice president of its real estate division. Duda owns 130,000 acres of Florida real estate, much of it in the state's fastest-growing counties. In

hiring Maloy, the company has landed a man considered to have been among the state's most powerful and persuasive executives..."

SADOWSKI & PRICE JOIN GOVERNING BOARD - CLARK RESIGNS

On March 15, 1984, two new Board members took the oath of office: William E. Sadowski of Miami, and Kent Price of Okeechobee. Sadowski replaced Crumpton, and Price replaced Burnham.

Sadowski, one of two Board members representing Dade County, was a partner in the legal firm of Akerman, Senterfitt and Eidson of Miami. He had served in the Florida House of Representatives from 1976 until 1982, when he left to return to private practice. Still, Sadowski maintained an active interest in state legislative matters in general, and water issues in particular. He served as current chairman of the Speaker's Task Force on Water Resource Issues. Sadowski was also the attorney of counsel to the firm of Steel, Hector and Davis; counsel to the Insurance Exchange of the Americas, Inc.; and special counsel to the Florida House of Representatives. His term on the WMD Board would expire in 1987.

R. Kenneth (Kent) Price was appointed to the Board as an at-large member from the area of Collier, Lee, Charlotte, Hendry, Glades, Osceola, Okeechobee, Polk, Highlands and Orange Counties. Born in Alabama, Price received his formal education in agriculture at Auburn University and the University of Florida. He had been an agricultural extension agent in South Florida for 30 years, including a 10-year stint as Okeechobee County's Extension Director. Price lived in Okeechobee, and was a partner in Boyd Dairy Farm. Although his term on the Board would officially expire in 1987, he resigned in June of 1985.

Sadowski and Price joined Chairman Bob Clark, Vice Chairman Stanley Hole, Nat Reed, Neil Gallagher, Kathy Abrams, John Flanigan and Timer Powers. Acting Executive Director John Wodraska was appointed Board Secretary and Assistant Treasurer. The Board's composition would in only two months change unexpectedly.

In a surprise move, Chairman Bob Clark resigned. Near the end of the Board's Regulatory meeting on May 10, 1984, Clark made an announcement. "The duties I used to find a challenge, I now find a chore," Clark said. "Things have happened in the past two years that were beyond the control of some of the present and former Board members...Some Board members have been fussed at in the recent past, but they are fine gentlemen." Clark mentioned Bob Padrick and John Hundley, who were not reappointed to the Board, and the controversy over deer islands in the Water Conservation Areas. The next day, Stanley Hole was elected Chairman, and Bill Sadowski Vice

Chairman. This new Board would be facing controversies as difficult to resolve as those cited by Clark.

LAND ACQUISITION, USE, GROWTH MANAGEMENT RESTORATION

The C-51 (West Palm Beach Canal) Western Basin sparked debates on land-use and growth management issues at the Board's workshops March 15, 1984. Plans to control growth in that basin were explained. At stake was a \$15 million drainage plan. Nat Reed called for "iron clad guarantees" that would stand up in court from local entities. At this same meeting, Lt. Col. Alfred B. Devereaux, Jr., of the Corps of Engineers, Jacksonville, made a presentation on relationships between the COE and the District.

A ban on residential development below the 100 year flood line in Montura Ranch Estates in Hendry County was reaffirmed -- until the Central County Drainage District completed its internal drainage works and the South Florida WMD completed the approved Hendry County Plan.

A floodplain strategy for the Kissimmee River (C-38) which included restricted discharges so that post and pre-development flows are equal; no net encroachment in the floodplain; restrictions on the use of WMD rights of way and no approvals of new permits was adopted. Rules for C-38 would be revised, and no General Permits would be approved. After these changes were implemented, land acquisitions would begin. The District would begin to acquire spoil areas, concentrating on Pools B and A, in order to acquire the balance of the undeveloped floodplain. The District would also target some developed lands for acquisition, working closely with local governments.

Land acquisition committed under the Five Year SOR Plan included: Senior Corp. lands, in Dade County; land in the Nicodemus Slough, in Glades County; acreage on the Loxahatchee River in Palm Beach and Martin counties; and lands around Canal-111 in Dade County. Tentatively planned for acquisition were various small parcels in the Water Conservation Areas and land in Okeechobee and Osceola counties around the Kissimmee River. The acquisitions were all to some degree dependent on state funding.

THE SEARCH FOR AN EXECUTIVE DIRECTOR ENDS

The Executive Director Search Committee presented a report to the Board in May of 1984. Personnel Director Mark Chapman said the position had been advertised in 14 newspapers and technical journals, at a cost of \$20,000. This wide-ranging search brought in 431 candidates. The Selection Committee would meet that day to evaluate qualified finalists.

Within two months, three finalists would be interviewed for Executive Director. They were: Tilford Creel, Director of the Waterways Experiment Station for the Army Corps of Engineers at Vicksburg, Mississippi; Thomas Buchanan, Director of the U.S. Geological Survey at Vienna, Virginia; and John R. Wodraska, Acting Executive Director. The Board chose Wodraska as Executive Director, in part because of what he told the Board that day.

Wodraska spoke extemporaneously, without notes, to the Board. His comments are excerpted below:

"Eight months ago, down in Flamingo, this agency learned we were going to get a new director for the South Florida Water Management District. I've been going through my calendar seeing what's happened in the last eight months. We had a drought in Cape Coral, and really all of South Florida; flooding over the Memorial Day weekend; Kissimmee River floodplain planned land purchases; an expedition to Florida Bay; steps to save the Florida panther and the District's pivotal role in those efforts; and participation in the Governor's Save the Everglades program.

"This agency is in the forefront of growth management, certainly in Florida and maybe in the nation. Our program in wetlands protection has been identified as a model program in the State of Florida and perhaps the nation...

"I have held many positions, coming up through the ranks in this agency. I continue to learn. I am 35 years old. I will be 36 in October. I look forward to the opportunity to really establish myself in a key position with the opportunity to make a difference for the future of Florida. That's what I view the directorship of this agency being. My background I described Saturday as a 'generalist.' Actually my discipline was geography. I got my Master's degree from Columbia University. Geography is the study of man and his relationship with the environment. I cannot think of a better background or discipline to prepare you for running and dealing with all the issues the South Florida Water Management District faces...

"My real experience has come from the 12 years working in this agency. I like to think that I've been part of the transformation... -- from a single-purpose agency to a multi-purpose agency.

Since I've been Acting Director, I feel pretty confident or proud that things have gone smoothly. There's a basic check list or formula I use. It's important for you to understand how I view running this agency. I believe I've had enough opportunities to show you that I do have the courage to make the decisions and act

on them appropriately, to know when compromise is appropriate, but also to know when to take the hard line. I think I have an excellent track record in dealing with all the publics that we deal with, whether it be the environmental community, development, the agricultural community. I listen to what they say. Listen. The process that we work under, with administrative hearings and everything else, you have to develop that coordination and that relationship." Wodraska emphasized the need to look for new innovative solutions.

"We can not rely on what people in the rest of the country have used in the past for water management practices... We have more change occurring down here than perhaps any other place in the nation. We have to come up with new, innovative solutions. Also, we have been able to maintain and attract a high caliber professional staff. That's what makes this agency -- the people in it, the staff -- to provide you with the advice to make the decisions. Also, realizing all the success stories we've had, there's a demand or some people are interested in expanding our responsibilities. I honestly believe our strength lies in managing water and related resources...

"I have developed and implemented an organizational strategy in this agency. It began in 1982-83. It represents my management philosophy -- team commitment, participative management, spreading accomplishments throughout the whole organization. I am also convinced that this is the only organizational structure that is going to deal effectively with the issues that we face today and that are going to be coming in the future. We have also developed relationships with all the different publics we deal with. I am proud of it.

"One of the environmentalists who was at yesterday's meeting came up and wished me luck today and indicated that while there might be candidates or people who they felt had more of a point of view toward environmental enhancement or protection, that my track record, my relationship with that group -- I've always been fair, honest, and understand where I'm coming from -- I've always given them an opportunity to accomplish their goals and to sit down across the table and discuss where we are going, what we can accomplish, how far we can go.

"I have seen some of the letters of support from people from the agricultural community, and they represent the same thing: Wodraska might not give us everything we've always asked for, but he's been fair, he's been honest, and that's where I want to be... I've worked hard in the past 12 years and have support from a broad sector of everybody in South Florida. I think I've

accomplished that, including the media, the legislative branch, the executive branch.

"The third point: I've worked with 27 out of the 64 Governing Board members of this agency. Every month I have a chance to stand up before you, to present an agenda and give you my feelings on how we should deal with these issues. I've solicited your input. I've accepted your contribution in improving the decision making process. I think you know me well enough that I will not do anything that will be a surprise to you or keep information from you. I have developed that relationship with you and with previous boards, over a long period of time.

"Fourth, the job itself has provided me with unique opportunity. There simply are not that many jobs in the United States in resource management that give you an opportunity to deal with the operations of a complex public works project, to deal with the planning issues that we're involved in, public involvement, dealing with the vast number of interest groups and publics that we have to deal with, the regulatory program that we have here at the District. All that has given me unusual opportunity to balance all those factors, turning problems into opportunities. Not too many other places have that.

"And finally, I started off my presentation by telling you where we have been in the last eight months. I'm more excited about the future. The Governor has indicated his goal is to make the State of Florida by the year 2000 resemble from an environmental standpoint and have the values that we had in the year 1900. That's quite a challenge directed toward this agency. We have 4-1/2 million people. By the year 2000 we'll be the fourth largest state in the country. To deal with a major hurricane or major rainfall event, living in the sub-tropics with our vast extremes, whether too much water or not enough water, dealing with the water quality problems that we have, representing from an agricultural standpoint, the citrus industry, the fact that winter vegetables come from this area, to support the rest of the nation -- that's quite a balancing act that this agency is going to have to be in charge of. I look forward to the opportunity to be the man running this agency."

Following his appointment, Wodraska selected co-finalist Tilford Creel to be his Deputy Executive Director. In September, Wodraska was named Secretary to the Board; Tilford Creel and Tom Huser, Assistant Secretaries; James R. Stokes, District Treasurer; and Wodraska and Joseph M. Moore, Assistant District Treasurers.

The FY 1984-85 budget -- \$58,089,681, a 17.59% increase over the budget for 1983-84 and a District millages of 0.143; an Okeechobee Basin millage of 0.284; and a Big Cypress Basin millage 0.088 was approved later in September of 1984.

ROEN APPOINTED TO REPLACE BOB CLARK

Nancy H. Roen, an attorney from Plantation, took the oath of office and joined the Board in November. She took over as Broward County's representative on the Board to complete Clark's current term, which would expire in July 1985. Roen was Corporate Counsel for Miami-based General Development Corporation since 1979. She attended Smith College at Northampton, Mass. and the University of Maryland, European Division, in Heidelberg, Germany. Roen earned her B.A. and M.A. degrees at the University of Denver in 1967 and 1971; and a law degree from the University of Miami School of Law, J.D. in 1974.

At General Development, Roen advised and represented the company in all matters relating to real estate transactions, environmental permitting, land registration, planning and zoning as well as sales, marketing, customer relations and advertising. She was responsible for the preparation and submission of applications for development approval of large scale developments and for the handling of hearings, negotiated settlements and appeals. Roen appeared on behalf of the company before local governing bodies, regional agencies and state agencies. She also represented a subsidiary water, sewer and gas utility company before local regulatory bodies and the State Public Service Commission. Roen prepared documents, pleadings and memoranda necessary for rate case approvals and industrial revenue bond financing of major capital improvements. She was also responsible for review of proposed legislation and drafting of bills affecting the land development and utility industry. Roen was a registered lobbyist and represented the company in all facets of administrative law, including rule adoption, rule challenges and formal hearings.

Commenting on his latest appointment to the SFWMD Board, Governor Graham said: "Nancy Roen's intelligence and experience in water and land use issues will enable her to make a strong contribution to the water management district's governing board."

ENVIRONMENTAL PROJECTS HIGHLIGHT FY 84-85

FY 84-85 saw the planning, construction and/or implementation of a number of environmental enhancement projects, many of them components of the Governor's "Save Our Everglades" program. Construction of the ambitious Kissimmee River Demonstration Project --designed to field test methods of re-establishing a more natural water regime in the channelized Kissimmee River

Basin -- was well underway. The structural aspects of the project were designed to divert water back into historic oxbows and formerly existing marsh lands. Combined with the proposed fluctuation of water levels in the 12-mile project area to more closely correspond to natural wet and dry cycles, it was hoped that as many as 1300 acres of wetlands would become integrated into the riverine system.

Restoration of the Holey Land tract in Palm Beach County also began during this time. Surrounded on three sides by agricultural production, the Holey Land and Rotenberger region had been degraded by overdrainage, muck fires and invasion by upland weeds and other plants. In an attempt to re-establish natural ecological values, the two areas will be restored as a flow-through marsh -- via the construction and/or modification of levees, culverts and pumping stations.

A new approach to controlling water flow into Everglades National Park was initiated for the 1985 wet season. The plan, developed by the SFWMD in cooperation with the Park and the Corps of Engineers, was based on historic rainfall, evaporation and flow records. Intended to mimic natural conditions, the amount of water released from the Water Conservation Area to the Park would be dependent on current rainfall and evaporation conditions.

The Northwest Fork of the Loxahatchee River--the only subtropical cypress forest river system in South Florida--was officially designated as a State administered component of the federal Wild and Scenic Rivers system on May 17, 1985. The District's proposed Loxahatchee River Restoration Program was incorporated as part of the federal designation's required management plan.

CORBIN JOINS BOARD

Oscar M. Corbin, Jr., of Fort Myers, newly appointed to the Board by Governor Graham to replace Kent Price, took the oath of office in October of 1985. He was appointed to the Board as an at-large member representing Collier, Lee, Charlotte, Hendry, Glades, Osceola, Okeechobee, Polk, Highlands and Orange counties.

Corbin had been Mayor of Fort Myers from 1967 to 1976. He owned a real estate and development firm in Fort Myers, and had a strong agricultural background. Corbin had a Bachelor of Science degree in Agriculture from the University of Kentucky, Lexington. He'd worked as a vocational instructor and had 20 years experience as owner and manager of farm supply businesses. He was also Vice Chairman of the Board for Lee Memorial Hospital, Inc. and Lee County Director of the NCNB Bank. Corbin was also Director of the local Chamber of Commerce, and was active in other Fort Myers organizations. His appointment to the Board would expire in 1989.

New Board officers were elected in May of 1986: Bill Sadowski Chairman, John Flanigan Vice Chairman, Executive Director Wodraska Secretary, and Tilford Creel and Tom Huser Assistant Secretaries.

The annual budget for fiscal year 1985-86 was \$69,081,486. It was an increase of almost \$11 million, or 19%, over the 1984-85 budget. Two Board members opposed the budget as presented: Timer Powers and Dr. Kathy Abrams. The District-wide millage was set at 0.167; with the Okeechobee Basin millage of 0.272 the total millage for taxpayers in that basin was 0.439. The millage set for the Big Cypress Basin was 0.070, which with the District-wide millage of 0.167 equalled 0.237 mills.

FY 1985/86 - LAKE OKEECHOBEE & THE LOTAC REPORT

This year, Lake Okeechobee brought itself to the forefront of District concerns in a way which could not be ignored. The largest algae bloom (120 square miles at its peak) ever recorded spread itself over the lake in August, blotted out other priorities and became the center of everyone's attention.

Fortuitously, the Lake Okeechobee Technical Advisory Committee (LOTAC) published its report just 10 days before the bloom appeared, allowing the District to continue to take action on what may be permanent solutions to the lake's problems.

LOTAC was formed in 1985 to explore alternatives to improve the lake's water quality. One of its recommendations -- Best Management Practices (BMPs) -- were implemented in the Taylor Creek Nubbin Slough. In November, a status report on BMPs in Taylor Creek and Nubbin Slough was presented. The BMPs included measures to fence cows out of waterways, to provide for retention and/or treatment of wastewater, and to reduce the flows of phosphorus enriched waters to Lake Okeechobee. BMPs in place included 23 milking barns, with 30,000 milking cows in Taylor Creek and Nubbin Slough.

Other LOTAC recommendations: the physical removal of phosphorus via aquatic weed removal; expansion of BMPs to the Lower Kissimmee; requiring improved conservation from agriculture via District permit renewals; diversion and aquifer storage and recovery will be explored in the coming year. Costs would be enormous, so the District would be heavily dependent on funding and other assistance from the state, federal and other sources.

DER Secretary Vicki Tschinkel discussed the role and functions of the DER at a meeting with the District in March of 1986. She addressed waste management, landfills, wellfield regulations, wastewater reuse, working together with the water management districts, C-51 (West Palm Beach Canal) and Lake Okeechobee. "We're in a very grave situation; I consider this a mutual problem -- one that should be on every Governing Board monthly agenda, how many nutrients are going into Lake Okeechobee and where. Put this on the front burner," Tschinkel said. "You have the power, the tools and the knowledge to solve this problem."

In the District's Save Our Rivers program, lands were acquired in the Northwest Fork of the Loxahatchee River, the Six Mile Cypress Swamp in Lee County, along the Kissimmee River as well as in the East Everglades and C-111 area. A Bond Issue for land acquisition under the Save Our Rivers program was authorized by the Board on September of 1985. Up to \$100 Million in bonds, with the First Issue to be \$50 Million, was approved. The bonds would go on sale that month, in denominations of \$5,000, according to Henry Chanin of Smith Barney, Harris Upham. Public meetings on the District's updated Five-Year Land Acquisition Plan (under the Save Our Rivers program) were held in Kissimmee, Fort Myers and Fort Lauderdale later that month.

In a briefing about WCA 1 in Palm Beach County called "Primeval Everglades," J. Walter Dineen, Chief of Environmental Sciences, described the area and staff's plans for it. "It has thick peat," he said. "It is a typical Everglades marsh with tree islands." He described a "layering effect" in ground strata, "floating batteries" or "peat pies." He reported: "Two or three species of Rhynchospora and other species, lots of crayfish and frogs grow in these wet prairies -- all prime food for the wading bird population."

Dineen noted "great fish and wildlife values" but observed that "water pumped in has very little penetration into the marsh," so the interior is "pretty pristine, a nice area." He recalled: "There has been talk of a drawdown in WCA-1...not to draw Area 1 down lower but sooner... Instead of reaching the minimum May 1, we would try to reach the minimum stage of 14 feet on March 15." The purpose of the drawdown was "to maintain what's there; if the area is too wet it will change as WCA-2 changed; we lost all the wet prairies in Area 2, and they were replaced with white water lily sloughs." He added that "In one out of three years, they want a good drying."

Other important achievements were the implementation of permitting for developments which are likely to affect water resources, and a greater emphasis on regulatory enforcement to ensure compliance and provide maximum protection to precious water resources. Strict criteria were adopted for stormwater runoff permits, to better protect groundwater resources.

As the result of a retreat for Board members and senior staff, a number of broad, yet vital areas of concern were identified and priorities set. In the coming year, the District would be working with local governments to encourage their adoption of important wellfield protection programs to safeguard areas that provide drinking water supplies to various publics. Stormwater management would also be receiving greater attention in the coming year.

The District would in the coming year place a greater emphasis on conservation and "demand management" of critical water supplies -- to strengthen its ability to keep water use within reasonable limits. Public education efforts like the "Stretch It" program, encouraging water conservation on the West Coast, were initiated. This role is one which will probably expand in coming years.

A need was seen to streamline and make more methodical the ranking and tracking of District land acquisitions, and the management of District-owned lands. Efforts to establish smooth working relationships with local governments within the District also received greater emphasis this year.

It was agreed that the District headquarters building was being severely stressed by the growth of the District's new responsibilities. Expansion plans for the SFWMD headquarters building began to be discussed in mid 1985. Board members favored 10-year future plans; and they wanted "options" for architects to consider. In October of 1985 a "B-50 Architectural Committee" for the proposed new building was appointed. Chairman Stanley Hole named Neil Gallagher as Chairman, and Nat Reed and Timer Powers committee members. The new facility approved by the Board was projected to cost more than \$27 million. Plans were to spread the cost over about four years.

One of the many significant accomplishments of this year was the District's completion of an agreement with the Seminole Tribe, which had evaded settlement since 1978. Once signed by the Tribe, the District, the U.S Congress and the Florida Legislature -- the agreement would provide for state acquisition of lands important for water management, and create a model system for use by states in their regulatory relationships with Indian tribes.

In the second month of the new year, a tour of the North Dade County canal system was conducted. Miami Field Station Superintendent Herb Cummings pointed out how District rights of way were littered with debris: garbage cans, wrecked equipment and run-down buildings were a common sight on the banks. This tour marked the start of a \$7 million commitment to clean up District rights of way.

Land acquisition, which was bringing more and more privately-held lands under District ownership, would eventually make the District one of the largest landowners in the region. Along with increased land purchases came the

responsibility for providing recreational use, maintenance and protection of the acquired properties. To meet those responsibilities, a new Department-- Land Management -- was created in 1985. Bill Brannen was named as its director. Joe Schweigart was appointed Director of Resource Operations, succeeding Brannen in that post. An \$89,702,427 budget for fiscal year 1986-87 was adopted in September of 1986. Millages were: .200, .313 and .116 respectively for the District, Okeechobee Basin and Big Cypress Basin.

FY 1986/87 - A YEAR OF CHANGE

State legislation continued to broaden the scope of the District's water resource obligations. The trend accelerated with the passage of the Surface Water Improvement and Management (SWIM) Act and the Interdistrict Transfer and Use of Water bill. SWIM required each water management district to develop a priority list of water bodies within their jurisdiction most in need of restoration and protection, and then identify strategies to protect or restore them. The District was already directing a great deal of its energies toward protection and restoration of its important water bodies --SWIM formalized that process. The Interdistrict Transfer bill offered water management districts the opportunity to function as wholesale water suppliers.

In a region so vast, it's not surprising for one area to have water supply problems while its neighbors have a more than abundant supply. With growth and development, this situation is likely to become less and less rare. Legislation on Interdistrict transfers charged water management districts with designing, constructing and operating regional water supply transfer systems. Those operations could then be transferred to other governmental entities. In 1987/88, the state provided the SFWMD with \$250,000 in matching funds to explore systems options as well as the feasibility of providing a transfer between the SFWMD and the St. Johns River Water Management District. Engineering consultants drilled exploratory wells in Osceola County and an aquifer performance test was begun.

But SWIM, more than any other legislative mandate, occupied much of the District's time and talent. Water bodies identified in the SFWMD were Lake Okeechobee, Biscayne Bay and the Indian River Lagoon. Others would be added: the WCAs, Everglades National Park, Lake Tohopekaliga and East Lake Tohopekaliga.

In recent years, the Legislature and the State had withdrawn the construction funding which had been traditionally provided to match Federal dollars to build the Central and Southern Florida Project. For three decades the Legislature had provided the non-federal share, usually about 20%, of construction costs. But now the Legislature and the Governor took the position that the Water Management District should use its ad valorem tax dollars to pay the non-federal share. This would put an additional burden on the taxpayers of the District.

GOVERNOR MARTINEZ NAMES A NEW BOARD MAJORITY

J. D. York of Palm City, in Martin County, was sworn in as a Board Member in June of 1987. York was appointed by Governor Bob Martinez as an at-large member -- representing St. Lucie, Martin, Palm Beach, Broward, Dade and Monroe counties. James Doyne (J.D.) York has an MBA from the University of Miami, and had been a Florida resident since 1965. He was Chairman of the Executive Committee of the McArthur Management Company, and a consultant for Dean Foods Company of Chicago. York has had a long association with the McArthur family estate, representing its agricultural, dairy and real estate interests. He was also a licensed real estate salesman, and has been active in various community groups. His term on the Board expires in 1990.

Five new Board Members also appointed by Governor Martinez took the oath of office the following month: Doran A. Jason of Miami, Arsenio Milian of Miami, Fritz Stein of Belle Glade, William (Mike) Stout of Orlando and James Garner of Fort Myers. Those leaving the Board in the summer of 1987 were: Timer Powers, Stanley Hole, William Sadowski, J. Neil Gallagher, John Flanigan and Kathleen Shea Abrams.

Doran Jason was appointed to the Board to represent Dade County. He had been active in real estate development in Dade for the past 20 years, and is president of his own company, The Doran Jason Group, which deals primarily in commercial office construction and sales. A resident of South Florida since 1957, Jason served on the Miami Downtown Development Authority and was a member of the Miami Board of Realtors. His term expires in 1991.

Arsenio Milian was appointed to the Board to represent Dade County. He was president of the Utility Division for the Deltona Corporation. Born in Cuba, Milian has resided in Florida since 1961. He is a civil engineer, and obtained his master's degree in engineering from the University of Florida. Milian is a member of the American and Florida Waterworks Associations, the Water Pollution Control Federation, and the American Society of Civil Engineers. He has also served on the City of Miami's Planning Advisory Board and Zoning Board. His term on the Governing Board expires in 1991.

Fritz Stein, a native of South Florida and long-time resident of Belle Glade, was appointed to the Board to represent Palm Beach County. Stein is a farmer with sugar cane holdings in the Everglades Agricultural Area and livestock interests in Highlands County. His extensive background in agribusiness includes service as a founding member and Director of the Sugar Cane Growers Cooperative of Florida; Director of the Florida Molasses Exchange, and State Committee Chairman of the Agricultural Stabilization and Conservation Service. Stein is also Chairman of the Board of Supervisors of the South Florida Conservancy District and Board Chairman of the Belle Glade Housing Authority. His term expires in 1991.

William (Mike) Stout was appointed to the Board to represent the central Florida area -- Glades, Okeechobee, Highlands, Polk, Orange and Osceola counties. He is the owner and president of Southeast Business Corporation, a business forms manufacturer and distributor. Stout had been Chairman of the Butler Chain Conservation Association for three years, and was instrumental in advocating strict environmental guidelines for development in the Butler Chain of Lakes region. Stout is also a member of the Greater Orlando Chamber of Commerce, the Florida Conservation Foundation and the Windermere Water and Navigation Control Board. His term expires in 1991.

James Garner, an attorney from Fort Myers, was appointed to the Board to represent central and southwest Florida. He is the managing partner in the law firm of Pavese, Garner, Haverfield, Dalton, Harrison and Jensen. His legal expertise lies in environmental and land use law. Garner is also active in the Lee County Bar Association and the Fort Myers Metropolitan Chamber of Commerce. He is a founder and current vice chairman of the Business Development Corporation of Southwest Florida, headquartered in Fort Myers. His term on the Board expires in 1991.

1986/87 - THE YEAR IN REVIEW

This was neither a wet or a dry year. Although water shortage warnings were issued on the West Coast in December, heavy spring rains alleviated the need for mandatory restrictions. And although Lake Okeechobee experienced an unusual wet season decline, coastal rainfall kept groundwater levels high. The respite from weather extremes gave the District the opportunity to both maintain and test its flood control facilities and system.

A number of cooperative agreements with regional planning councils and local governments resulted in a system to accurately track land use through a shared data base network.

During the year, the District's commitment to its stewardship role through the SOR land acquisition program continued to expand. Over the six years ending this year, 89,441 acres had been purchased for \$60.14 million. At an average cost of only \$670 per acre, SOR was proving to be a very cost-effective water management tool.

Kissimmee River Restoration was well on its way. Phase I, completed in 1985, underwent continual monitoring, and testing during this year. Though too early to gauge the overall success of the project, marked overall improvements were seen in the oxbows and floodplain around Phase I. Restored flows flushed out deposits of organic muck that had accumulated on the bottom of the river. Sampling suggested that the reestablishment of a more natural river bottom habitat had improved conditions for bottom dwelling organisms. Some changes in vegetation, along with increased wading bird and waterfowl sightings, have also been observed in the floodplain adjacent to Phase I. Early

in the year, a high discharge test simulated storm water flow over a four day period. Information gathered from this test would be further analyzed and used in the physical models of the river being built at the University of California at Berkeley.

In June, Kissimmee River Restoration Phase II -- River Run Revitalization was proposed. Combined with Phase I, more than 27 miles, or one-third of the river would have its natural values enhanced. With passage of the Water Resources Development Act of 1986, which included a section authorizing the U.S. Army Corps of Engineers to modify existing Corps projects to enhance environmental values, federal funding would also be pursued for the Restoration.

This year also marked the culmination of negotiations in the Seminole Compact. Initiated and approved in concept the year before, the agreement was signed in July. With the Water Rights Compact, the District blazed a trail by settling Indian water rights disputes outside of a courtroom.

In July of 1987, Nancy Roen was elected the Board's Chairman, and J.D. York Vice Chairman. John Wodraska was reconfirmed as Executive Director and Board Secretary. Also serving on the Board with these new appointees were Nat Reed and Oscar Corbin.

Chairman Nancy Roen talked about the impact of recent changes on the SFWMD in the FY 1986/87 Annual Report. She said in part:

" This has also been a year of transition and a test of the strength and resiliency of the institution. A new Governor and six newly appointed Board members have brought some differences in approach and philosophy. Yet, the new Board members, abruptly thrust into the often awesome responsibilities of managing and understanding complex water resource issues have brought the same quality, energy, dedication and willingness to accept the responsibilities of stewardship that have been the hallmarks of the District's Boards.

"In the last few years, we have opted to take a leadership role in addressing the complex problems and managing the water resources of the region. The nature of this role has been and will be to constantly confront insoluble problems and solve them--to answer the unanswerable. Having chosen to be activists and with the critical immediacy of some of the problems, we have acted and may be required to act without ultimate answers. It will take strength and courage to dare to attempt what has never been done before, to be incubators

for fresh looks at age old problems, to accept defeat and mistakes yet continue to seek environmenatly protective, fair, sound, technically based and economically feasible solutions.

"Together as Board and staff," Roen concludes, "and with the help of an active and informed public we can meet the growing challenges and increasing responsibilities we will face in the coming years."

In September of 1987, the Board adopted a budget for fiscal year 1987-88 of \$142,112,219. This included Operating Expenditures of \$92,523,198 plus capital expenditures of \$49,589,021. The millages: District .225, Okeechobee Basin .272 and Big Cypress Basin .126.

1987/88 DISTRICT CLEAN-UP EFFORTS STRENGTHENED

The 1987 Surface Water Improvement and Management Act (SWIM) continued to have a strong impact in FY 1987/88. It lent fresh impetus to the SFWMD and other agencies to strengthen water quality protection in the coming years. Under SWIM, work on Best Management Practices (BMPs) accelerated.

A total of 12 dairies completed plans for BMPs, and three dairy farms in the lower Kissimmee Basin completed facility construction -- which would reduce the amount of phosphorus-laden water moving through the system. Information from applied research and demonstration projects -- like aquifer storage and recovery (ASR) of nutrient rich waters -- added to the District's base of knowledge about the best ways to remove nutrients from surface waters.

Meanwhile, Interim Management Plans essential to the protection and restoration of the Indian River Lagoon and Biscayne Bay --SWIM targeted water bodies --were completed. Studies of Lake Okeechobee water levels and the importance of the lake's littoral zone were begun, as was an interim SWIM plan for lake Okeechobee. Management plans for the Water Consevation Areas and Everglades National Park were targeted for the following year.

The East Everglades Task Force , a joint initiative among state and federal governments and agencies, made a number of land acquisition recommendations to enhance and protect Everglades National Park.

Under the District's Save Our Rivers success stories for the year was the acquisition of nine parcels totalling 10,000 acres - many in the Kissimmee River Valley and other sensitive areas where restoration efforts are underway. And all the land targeted in the Loxahatchee River Basin was acquired this year.

Kissimmee River Restoration progressed markedly this year. Based on what was learned in the past -- from when Phase I was begun in 1983, to high discharge tests in early 1987, to the preliminary results of physical and computer models obtained during the year -- plans for Phase II, River Run Revitalization were completed.

1987/88 - ALSO A YEAR OF INCREASED STRUCTURAL FLEXIBILITY

Today, the system built by the Corps of Engineers and passed along to the District to operate and maintain is being improved and upgraded. It is also being operated according to more advanced and sophisticated criteria -- which allow the system to be used both effectively and efficiently to serve each and every aspect of the District's mission.

Major projects begun or continued this year included: a mitigation project at the Nicodemus Slough, to alleviate flooding on the western edge of Lake Okeechobee; a modified Hendry County Plan designed to relieve flooding created by construction of the levees along the Everglades Agricultural Area; replacement of the Pompano Canal structure and construction work on S-9 at the eastern edge of WCA 3-A in Broward County.

In July of 1988, a new \$6 million field station on Sansbury's Way, West Palm Beach was dedicated. The field station is north of Southern Boulevard, near the Fairgrounds. The old field station behind District headquarters on Gun Club Road was torn down to make room for headquarters building expansion; all personnel and equipment were transferred to the new, much improved facility.

The how, why, when and where of decisions to move water has been continually improved -- thanks to the District's commitment to technological improvements and refinements of operating criteria. OASIS, a comprehensive decision-support program which monitors and displays current hydrologic, weather data and structure status under development this year will considerably improve the District's ability to foresee and compensate for the vagaries of nature and man. Pulse releases, to protect fragile estuarine environments while also allowing the District to provide direly needed flood protection, were frequently incorporated into District operations.

IMPROVING INTEGRATED LAND AND WATER USE STRATEGIES

In the Annual Report for 1987/88, Chairman Nancy Roen said:

" Faced with the daily dilemma of providing adequate protection from the threat of flooding; ensuring an ample water supply for a growing population; safeguarding the quality of our surface water and groundwater supplies; and protecting natural areas from

development, the challenge before the South Florida Water management District can, at times, seem overwhelming.

"In the midst of attempting to balance these oft-times competing demands on the resource, our primary role must be to provide for the protection and preservation of the state's natural resources -- to assure that the continued burgeoning growth of South Florida is managed in a manner that, insofar as possible, does not deplete, destroy or diminish our natural systems."

In the same document, Executive Director John Wodraska spoke about the importance of the structural system of canals, spillways, locks and pumping stations which allow the District to fulfill its challenging, multi-faceted mission.

"This year the District was fortunate -- these structures were not tested by a major storm or hurricane. In fact, rainfall throughout the District was eight inches below normal. The West Coast was most severely shortchanged, with a 19 inch deficit. Water shortage warnings, and eventually mandatory restrictions, were in force in the Fort Myers area during almost one third of the year."

"...The lives and livelihoods of more than 4.5 million people in South Florida depend on our structural system, designed and built 20 to 40 years ago to protect people from Nature's extremes. Unprecedented growth has asked more of this system than it was ever designed to handle."

Two major initiatives which would become the foundation for better integration of land and water use were begun: the Water Use Management and Planning (WUMP) Program, and the review of local government comprehensive plans. WUMP was devised to create a long-range strategy for allocating water resources that is consistent with the District's mission to balance the need for water supply, flood protection, water quality protection and environmental enhancement.

The District's Basis of Review, which encompasses the criteria on which consumptive use permit applications are evaluated, would be revised in the coming year. The District also planned to develop Section Water Use Management Plans to provide area-specific guidelines for water use and supply -- based on local availability projections and District water-use policies.

1988 / 89

On September 9, 1988, J.D York resigned as Vice Chairman, and Jim Garner was elected Vice Chairman. The Board also authorized a new format for Governing Board meetings, which would go into effect in January 1989: monthly Board meetings on Wednesday and Thursday (rather than Thursday and Friday). Later that month, the Board adopted a budget for fiscal year 1988-89 of \$156,835,881. The millages were: District and Okeechobee Basin 0.547, District and Big Cypress Basin 0.410.

In February of 1989, the Board approved the concepts set forth by District staff for a SWIM plan for Lake Okeechobee. In months to follow, the plan's rules will be reviewed and revised based on input from a series of public meetings scheduled around the District. This same month, an Interim Report by the Lake Okeechobee Technical Advisory Council (LOTAC II) was received by the Board.

The following month, three new Board members were sworn in. They were: Ken Adams, of Palm Beach County; Valerie Boyd, of Collier County; and James Nall, of Broward County. With these three new appointments, the entire Board would be comprised of individuals named by Governor Martinez. Also at this meeting, James Garner was elected Chairman, and Doran Jason Vice-Chairman.

Ken Adams, a former Palm Beach County Commissioner, is a self-employed investor. He is also the former chairman of both the Palm Beach County Water Resources Management Advisory Board and the Environmental Control Board. Adams succeeds Nat Reed. His term expires in March of 1993.

Valerie Boyd is the president of Garguilo-Boyd-Procacci, a real-estate development firm. From 1978-86, Boyd served as vice president of the Wilbur Boyd Corporation, and gained a background in real estate development with a special emphasis on the DRI process. Boyd replaces Oscar Corbin. Her term expires in March of 1993.

James Nall, a real estate consultant and commercial broker, brings almost 20 years of agribusiness experience to the Board. Nall has been active in realty development in South Florida since 1961. He succeeds Nancy Roen. Nall's term expires in March of 1993.

Board members whose terms had expired were Nat Reed, Nancy Roen and Oscar Corbin.

INTO THE FIFTH DECADE

In this past decade, the SFWMD has become proactive rather than reactive -- and achieved real progress in local government assistance programs, in plugging free-flowing artesian wells, in contributing major grants to local governments for public park and recreation projects, for improved water management and wellfield protection. Part of that proactive perspective lies in public education efforts. We've realized that protecting the resources of this fragile region has to become everyone's priority -- and that we or no other agency can do it alone.

The District is thoroughly committed to the SWIM program and its goals. But then, it always has been committed to protecting and preserving natural water resources. SWIM does lend a great deal of impetus to our efforts to preserve, protect and restore the entire South Florida hydrologic system, because we understand now more than ever how inextricably linked each and every part of the system is to the whole. The District should reap a fine harvest from the seeds planted by LOTAC, and from Lake Okeechobee littoral zone studies and other research. The District's drawdowns have rejuvenated the natural environment, fish and wildlife, as fish camp operators on Lake Toho can testify. Enhanced regulatory powers have given the District the tools it needs to more effectively protect our region's water resources.

And the District is making significant progress in arriving at solutions to existing problems and finding ways to avoid future problems. To cure the patient however, the illness must be properly diagnosed. This the District has done or is doing, across the length and breadth of its boundaries. Though we've learned a lot, we know there is still much to be learned -- and so strive not to be complacent simply because we have the good fortune to have enlisted some of the best minds and most advanced technology available in our efforts to solve each crisis as it arises, while planning to the best of our ability for the future.

We've set rather lofty goals for ourselves, yet look forward to meeting them in our fifth decade of protecting this region and its resources.

Florida Governors 1949 - 1989

Gov. Fuller Warren, 1949 - 1953
Gov. Daniel T. McCarty, 1953
Gov. Charley E. Johns, 1953 - 1955
Gov. LeRoy Collins, 1955 - 1961
Gov. C. Farris Bryant, 1961 - 1965
Gov. W. Haydon Burns, 1965 - 1967
Gov. Claude R. Kirk, Jr., 1967 - 1971
Gov. Reubin O'D. Askew, 1971 - 1979
Gov. Bob Graham, 1979 - 1986
Gov. Bob Martinez, 1986 - present

FCD / SFWMD GOVERNING BOARD - 1949 - 1989

Dave Turner, 1949 - 1950
Chairman, 1949 - 1950

Joe S. Earman, 1949 - 1953
Chairman, 1950 - 1953

Lawrence Rogers, 1949 - 1951

Neil J. Hays, 1949 - 1950

Dr. Fred Bartleson, 1949

Broward M. Daniels, 1950 - 1952

Henry J. Driggers, 1950 - 1952

Clement L. Theed, 1950 - 1953

Glenn Ray, 1951 - 1952

Roland Hardy, 1952 - 1954

Emmett S. Roberts, 1953 - 1954

J. Abney Cox, 1953 - 1957
Chairman, 1953 - 1954, 1955 - 1957

C. S. Cornelius, 1953 - 1954

F. Elgin Bayless, 1953 - 1955
Chairman, 1954 - 1955

Gene Moore, 1954 - 1955
Chairman, 1955

John E. Price, 1954 - 1955

Luther L. Chandler, 1954 - 1955

W. B. Barron, 1954 - 1955

Brian K. McCarty, 1955 - 1962
Chairman, 1959 - 1960

W. B. Makinson, Jr., 1955 - 1956

Willis H. Hitt, 1955 - 1960
Chairman, 1957 - 1958

David G. Click, 1955 - 1961
Chairman, 1958 - 1959

Clarence L. Thacker, 1956 - 1958

Jefferson Davis, 1957 - 1960
Chairman, 1960

Riley S. Miles, 1958 - 1967
Chairman, 1960 - 1967

John M. Fredrick, 1960 - 1961

Curtis R. Barnes, 1960 - 1962

R. R. Horner, 1961 - 1965

J. Bruce Vining, 1961 - 1963

Stan W. Koller, 1962 - 1965

William R. Scott, 1962 - 1965

Robert L. Searle, 1963 - 1969

T. R. Tomlinson, 1965 - 1967

C. A. "Mutt" Thomas, 1965 - 1978

Robert W. Padrick, 1965 - 1983
Chairman, 1967 - 1969, 1970 - 1972

FCD / SFWMD GOVERNING BOARD - 1949 - 1989

Robert P. Blakeley, 1967 - 1970
Chairman, 1969 - 1970

E. Davidson Potter, 1967 - 1968

H. J. Sands, Jr., 1969 - 1972

John G. DuPuis, Jr., 1969 - 1972

Ray B. West, 1971

Robert L. Clark, Jr., 1971 - 1984
Chairman, 1972 - 1984

Arthur R. Marshall, 1972 - 1973

R. Emmett McTigue, 1972 - 1975

B. L. Pratt, 1972 - 1975

W. J. Scarborough, 1972 - 1979

J. R. Spratt, 1972 - 1978

John M. DeGrove, 1972 - 1978

Claude O. Godwin, 1973 - 1976

R. Hardy Matheson, 1975 - 1979

Ben Shepard, 1975 - 1979

Maurice L. Plummer, 1977 - 1979

John L. Hundley, 1978 - 1983

Jeanne Bellamy, 1979 - 1983

Charles L. Crumpton, 1979 - 1984

Robert K. Butler, 1979 - 1980

Aubrey L. Burnham, 1980 - 1983

R. Kenneth Price, 1984

William E. Sadowski, 1984 - 1987
Chairman, 1986 - 1987

John F. Flanigan, 1983 - 1987

Stanley W. Hole, 1976 - 1987
Chairman, 1984 - 1986

Nathaniel P. Reed, 1978 - 1989

J. Neil Gallagher, 1978 - 1987

Kathleen Shea Abrams, 1983 - 1987

Timer E. Powers, 1983 - 1987

Nancy H. Roen 1984 - 1989
Chairman, 1987 - 1989

Oscar M. Corbin, Jr., 1985 - 1989

James Doyne (J.D.) York, 1987 - present

James F. Garner, 1987 - present
Chairman, 1989

Doran A. Jason, 1987 - present

Arsenio Milian, 1987 - present

Fritz Stein, 1987 - present

William "Mike" Stout, 1987 - present

Ken Adams, 1989 - present

Valerie Boyd, 1989 - present

James Nall, 1989 - present

Executive Directors FCD / SFWMD 1949 - 1989

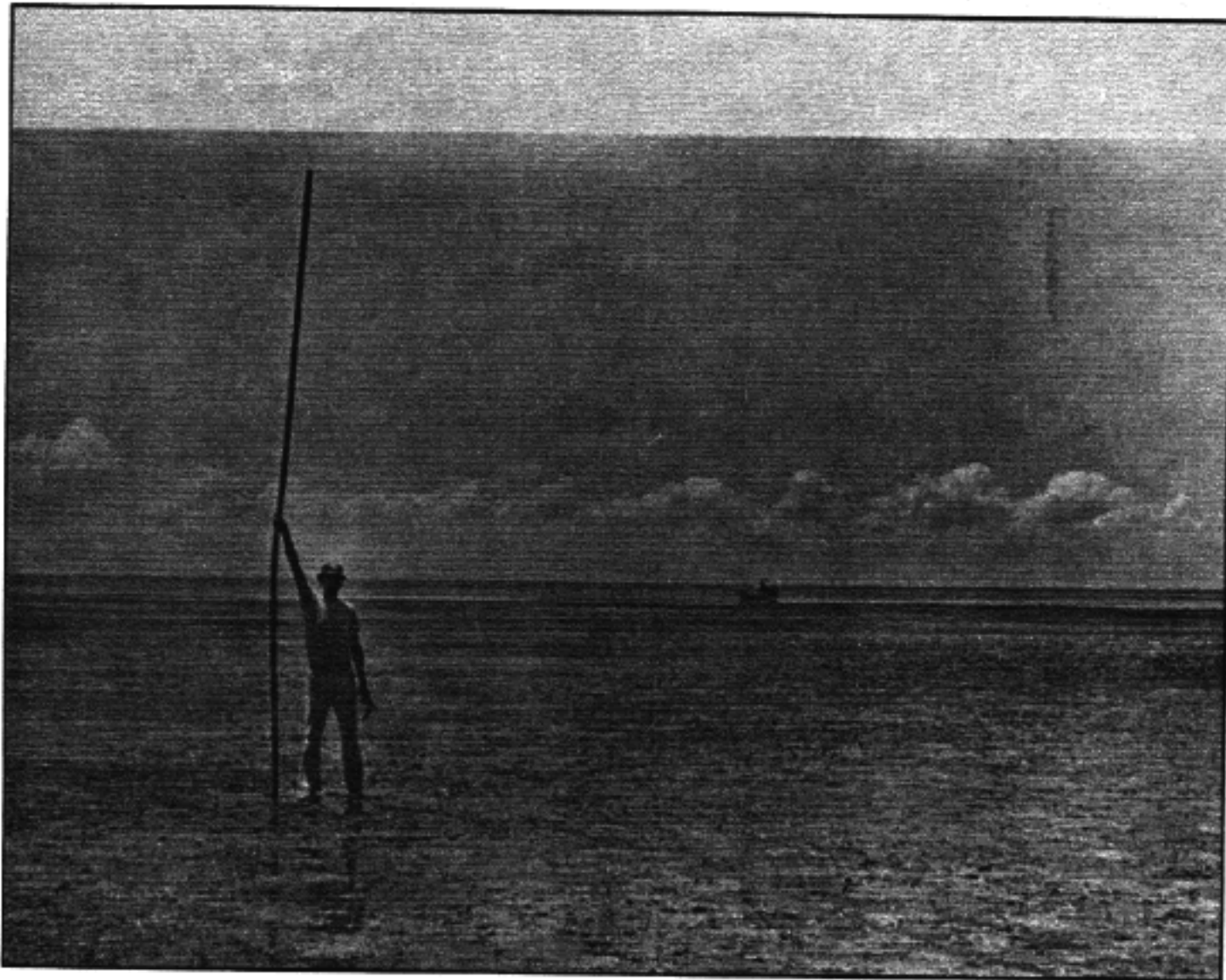
W. Turner Wallis, 1949 - 1956

Bolivar F. Hyde, Jr., 1956 - 1958

George E. Dail, Jr., 1958 - 1974

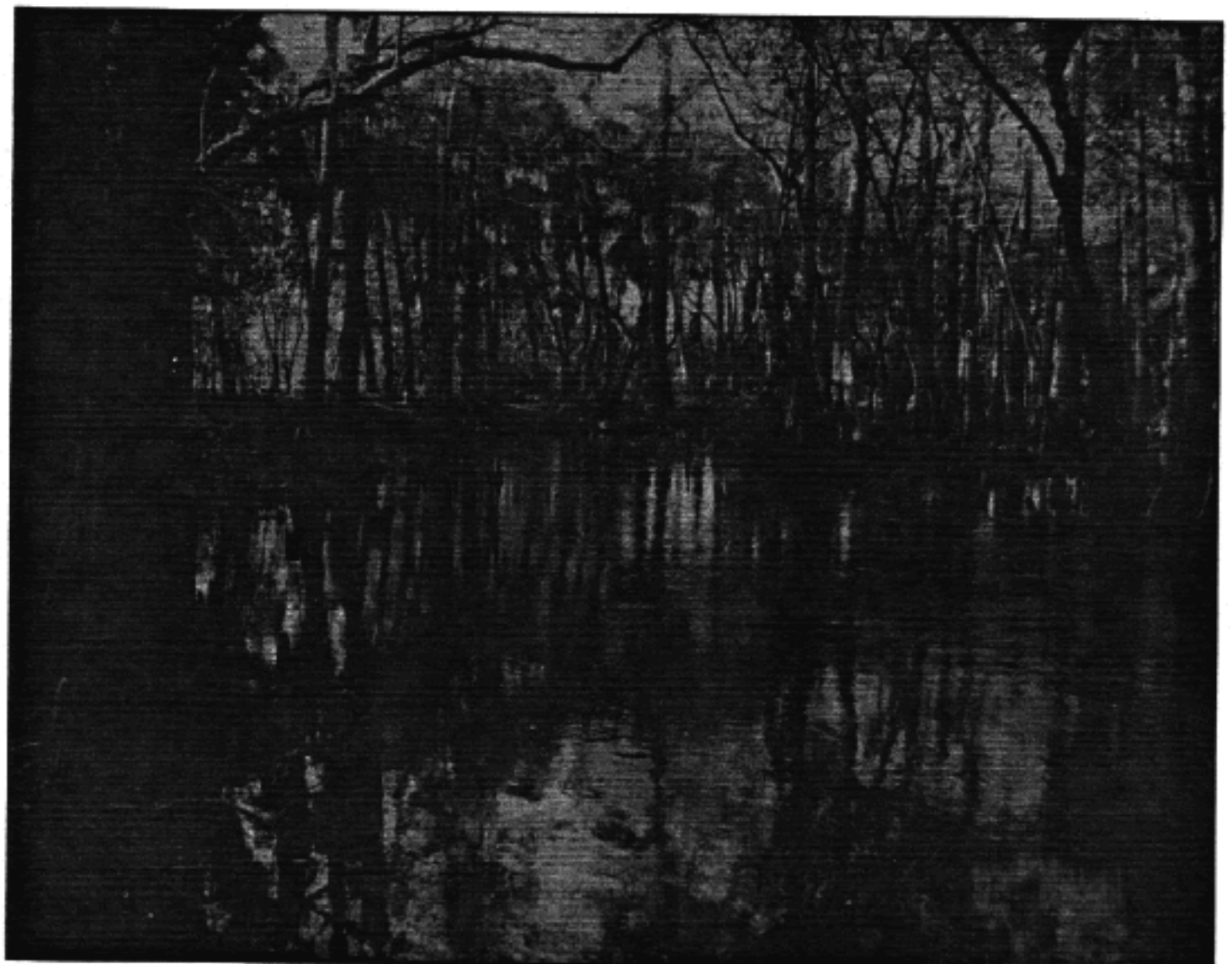
John R. Maloy, 1975 - 1984

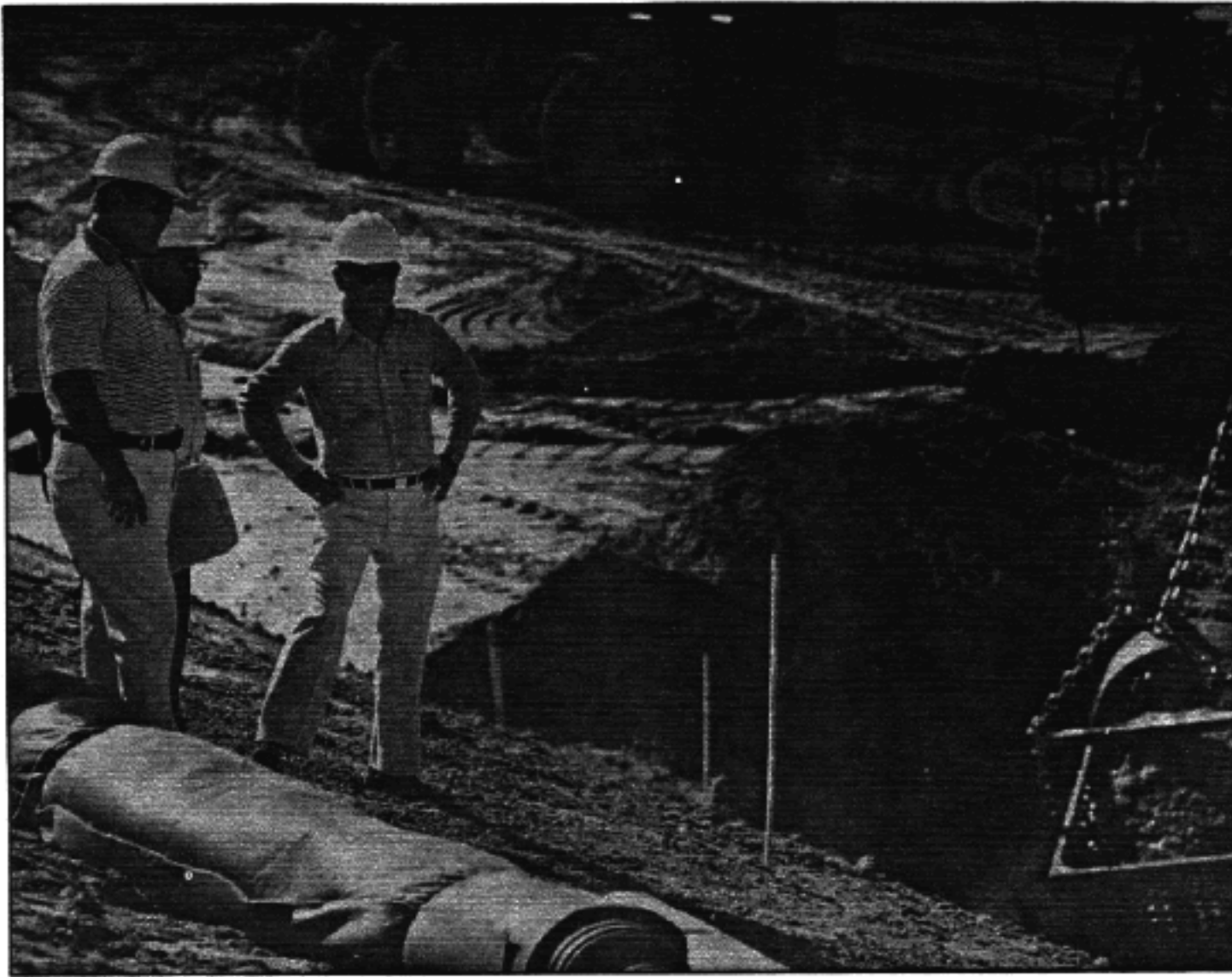
John R. Wodraska, 1984 - present



Lake Okeechobee reached its all-time record low level of 9.75 feet MSL on July 29, 1981.

The Save Our Rivers program, passed by state legislation in 1981, enables the state's water management districts to acquire environmentally sensitive lands.

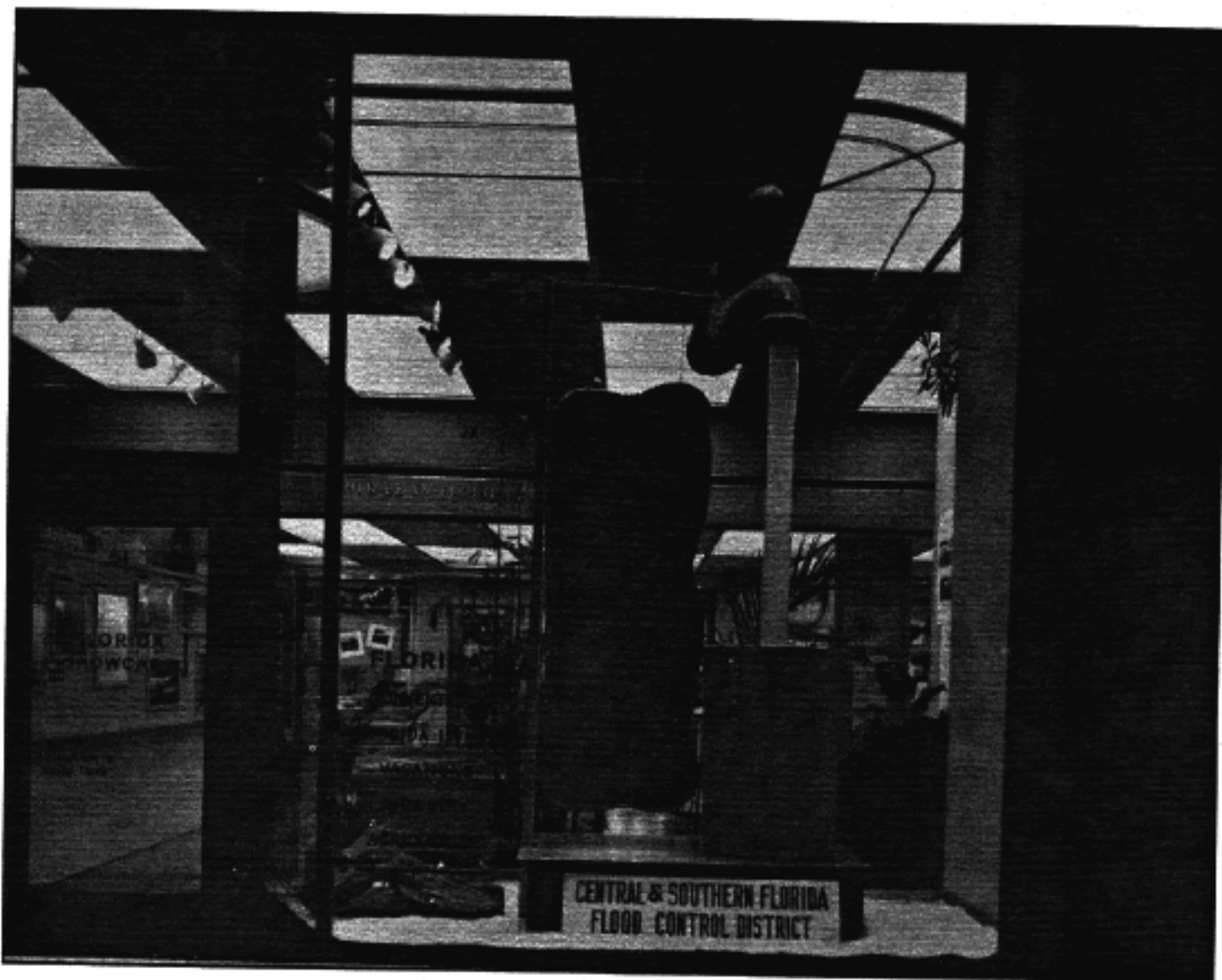




Governing Board member Stanley Hole, a registered engineer (pictured at right), devoted much personal attention to the reconstruction of the FP&I reservoir in western Martin County during 1979-80.

Governing Board Vice-Chairman Bob Padrick chats with noted environmentalist and author Marjory Stoneman Douglas at the District-sponsored "Shirt-Sleeve Symposium" in November 1980.

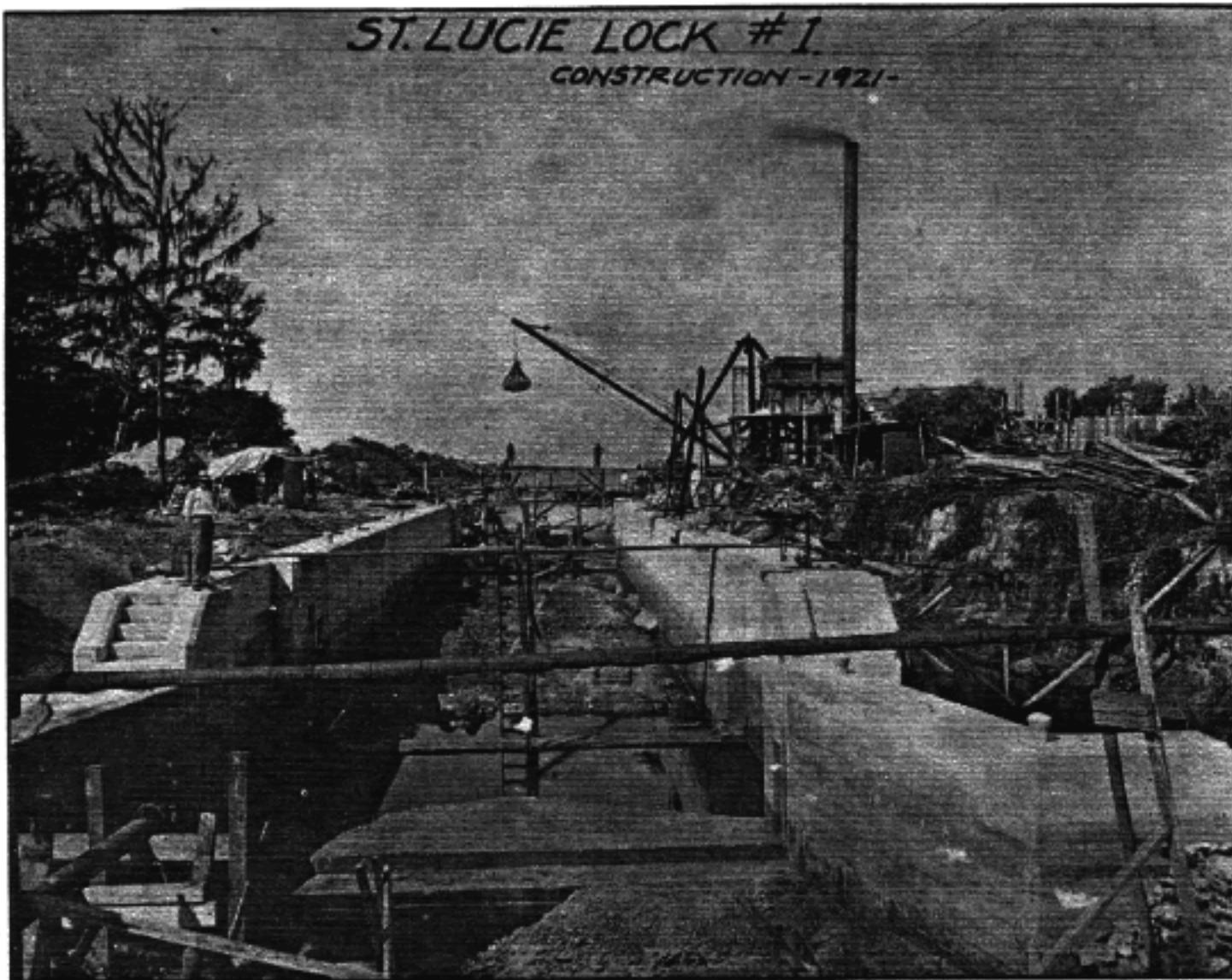




In November of 1966, FCD works were showcased at the Rockefeller Center in New York City.

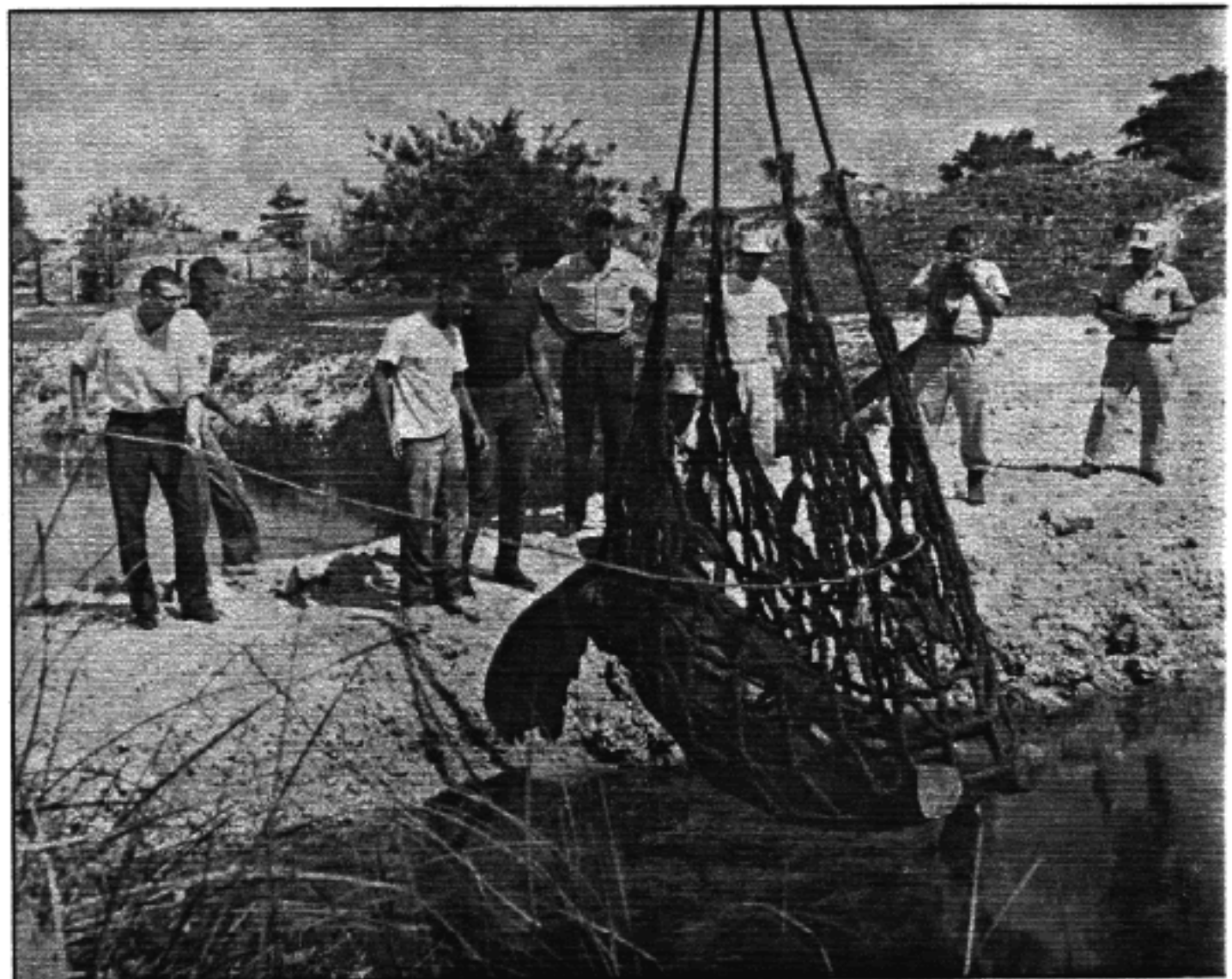
The FCD celebrated 20 years of public service in July, 1969. Governing Board Vice-Chairman Bob Padrick, left, is pictured with Governor Claude Kirk.

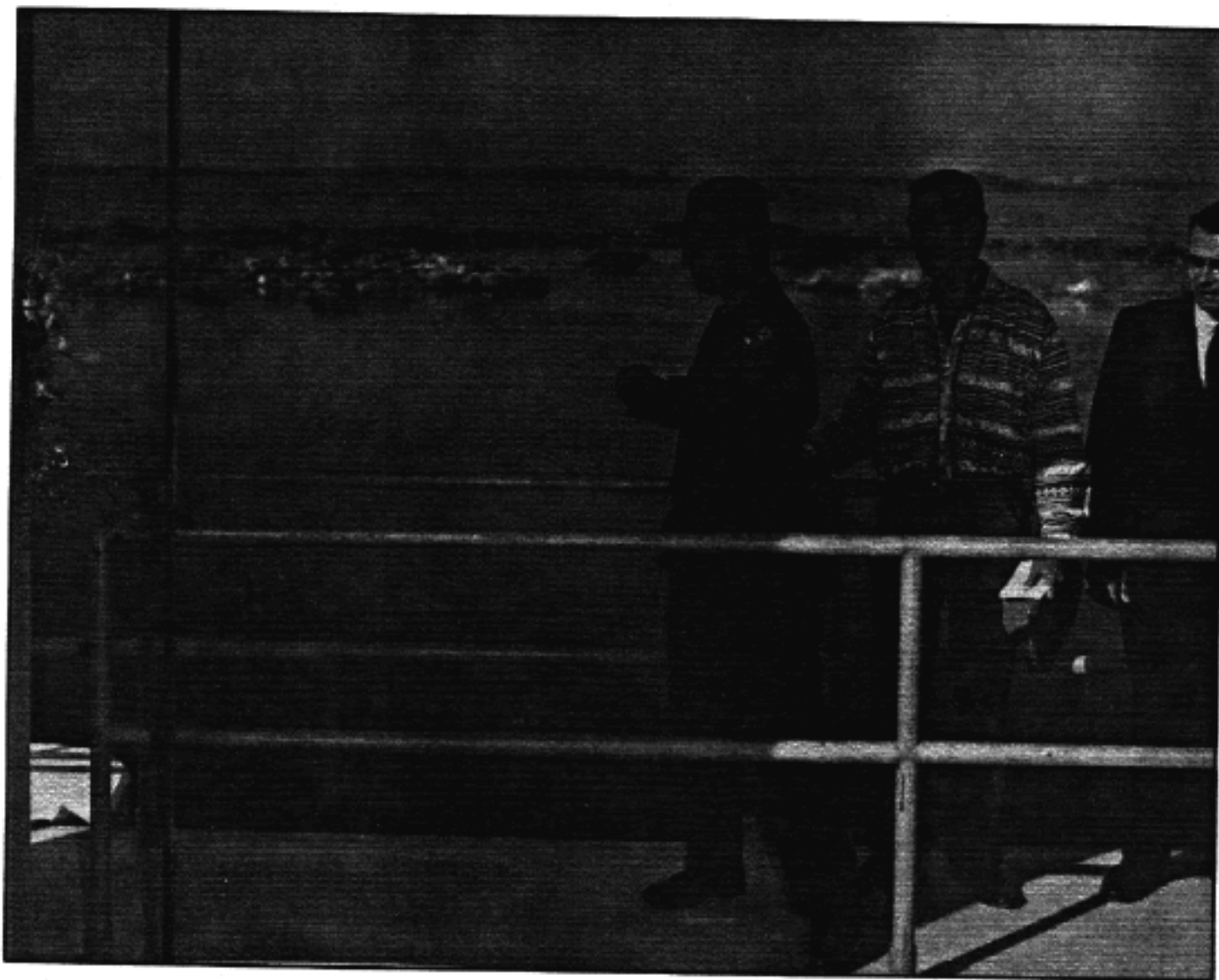




Construction of the St. Lucie Canal boat lock, 1921. Controversies over large fresh water discharge and impacts to the estuary have continued for a number of years.

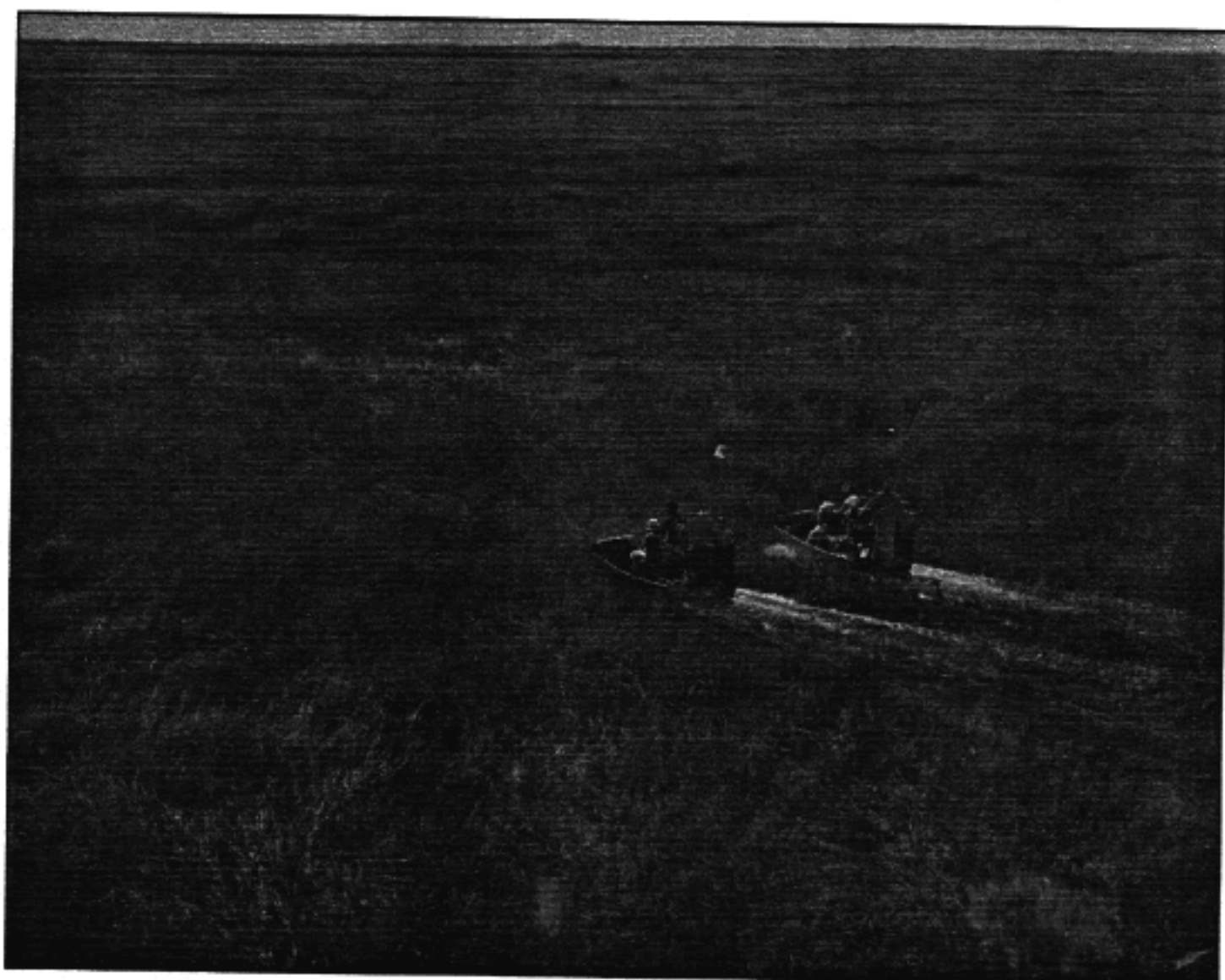
A three-year study of manatees (seacows) and their usefulness in controlling aquatic weeds was launched by the District in 1964.





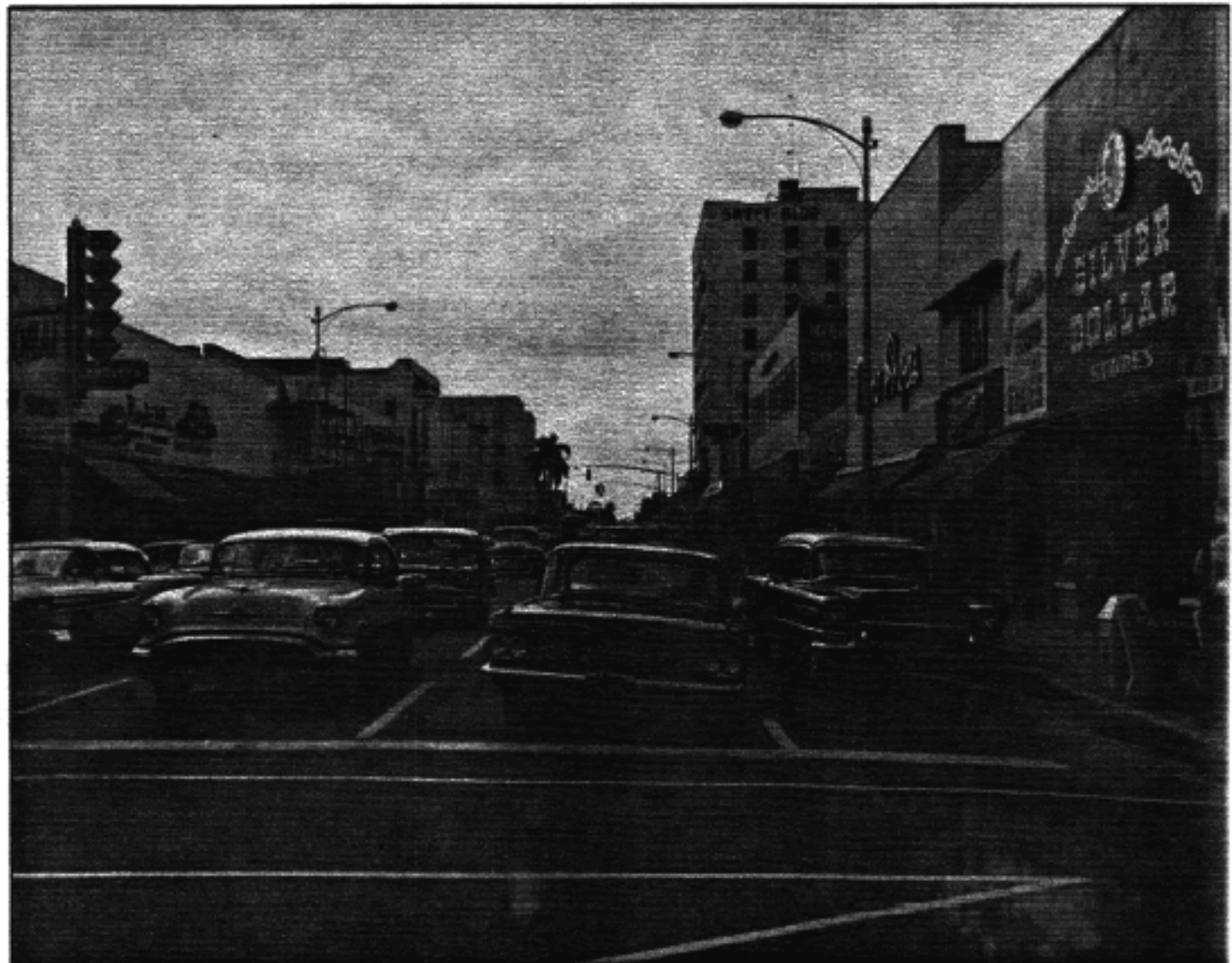
Dedication ceremonies for Water Conservation Area 3 on December 15, 1962 included (l to r) Warren Hamilton, Superintendent of Everglades National Park; Buffalo Tiger, Chief of the Miccosukee Tribe; and Tom Adams, Secretary of State.

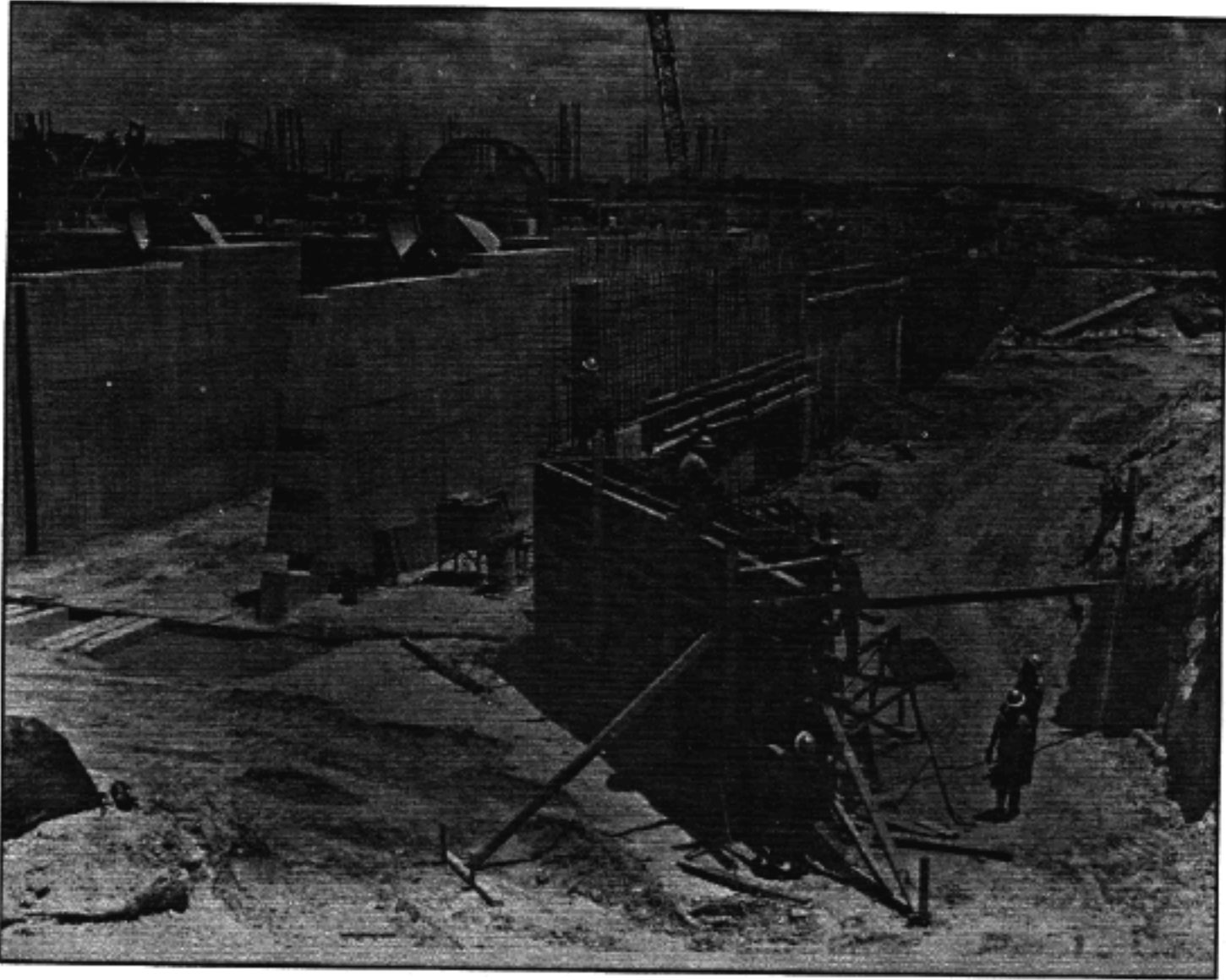
The District's three Water Conservation Areas preserve nearly 50 percent of the original Everglades. Airboats skim across the vast stretches of sawgrass prairies.





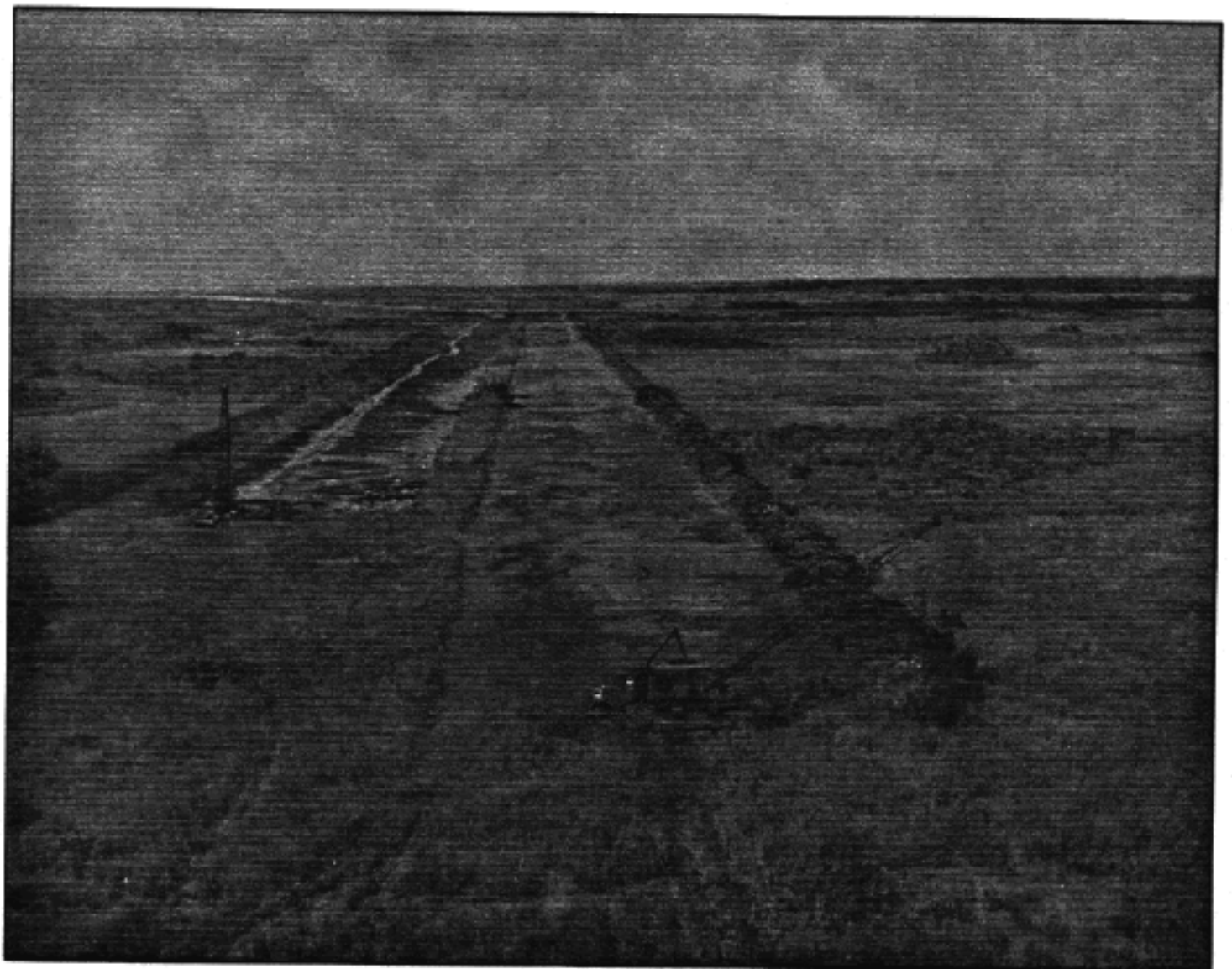
Before and After — Top, taken in 1947 in downtown Ft. Lauderdale, before FCD works were begun. Bottom, the same location 20 years later.

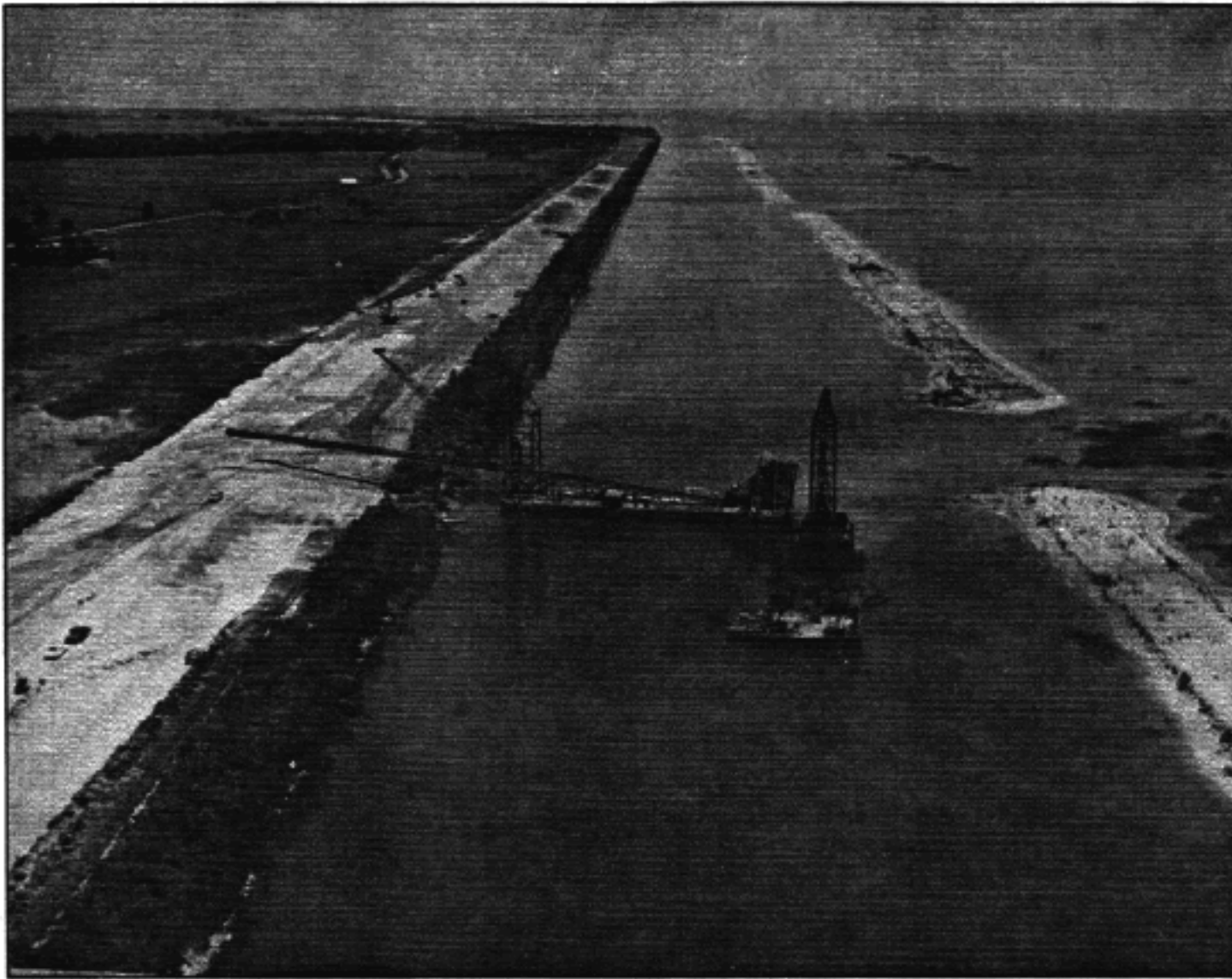




Construction of Pumping Station S-8, located on the Miami Canal at the northwest corner of WCA 3A.

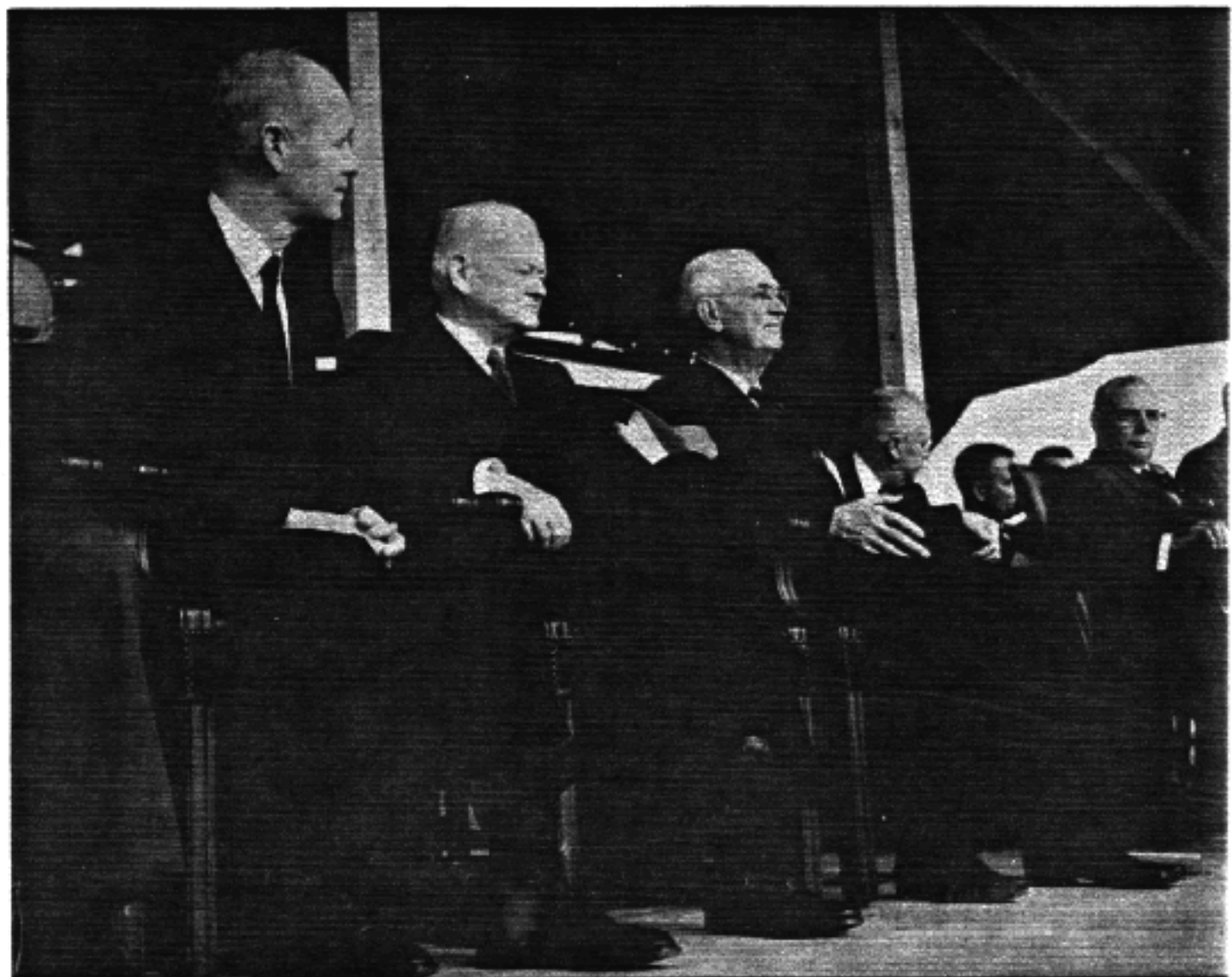
Levee (L-40) construction, 1952.

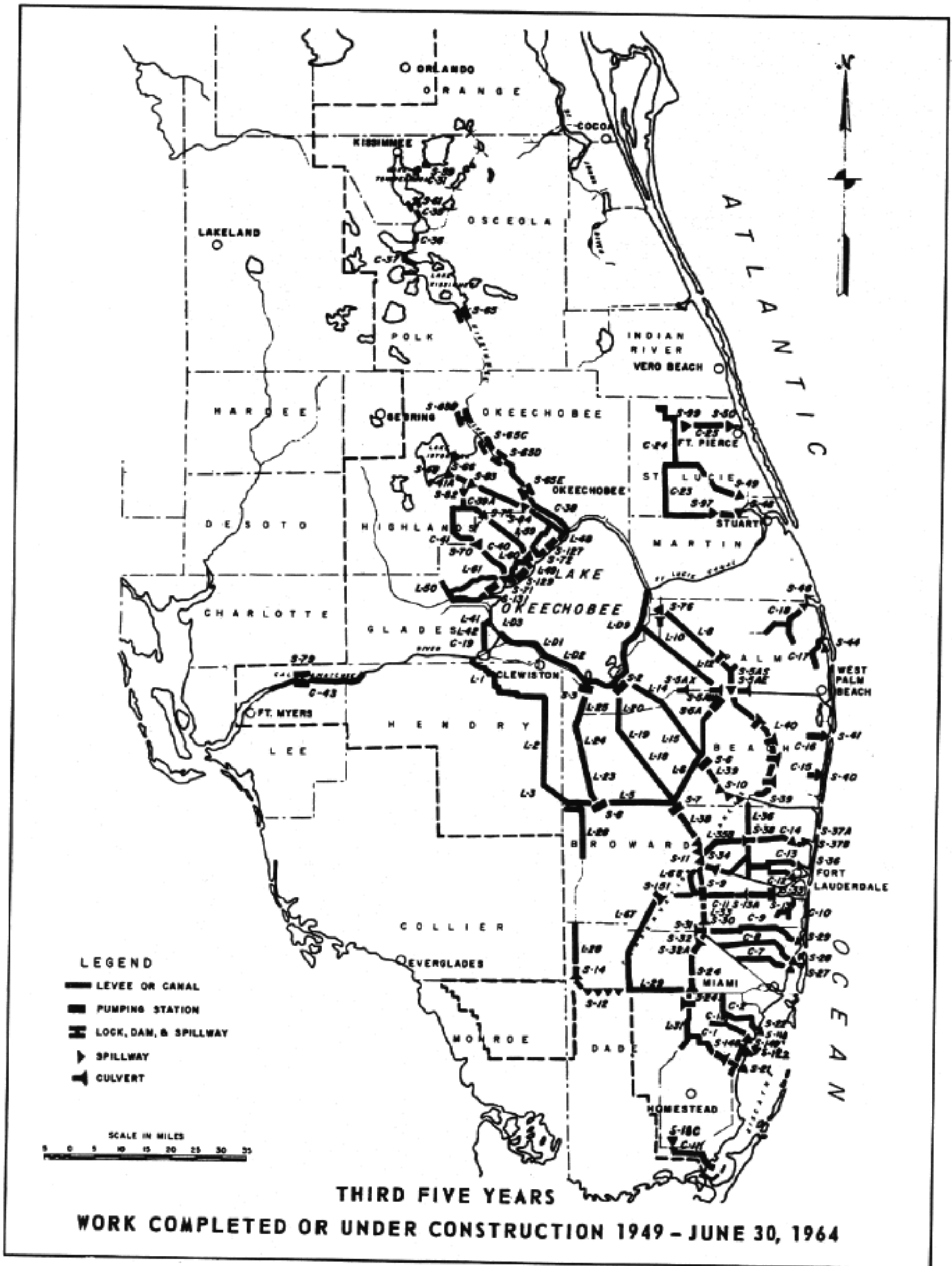




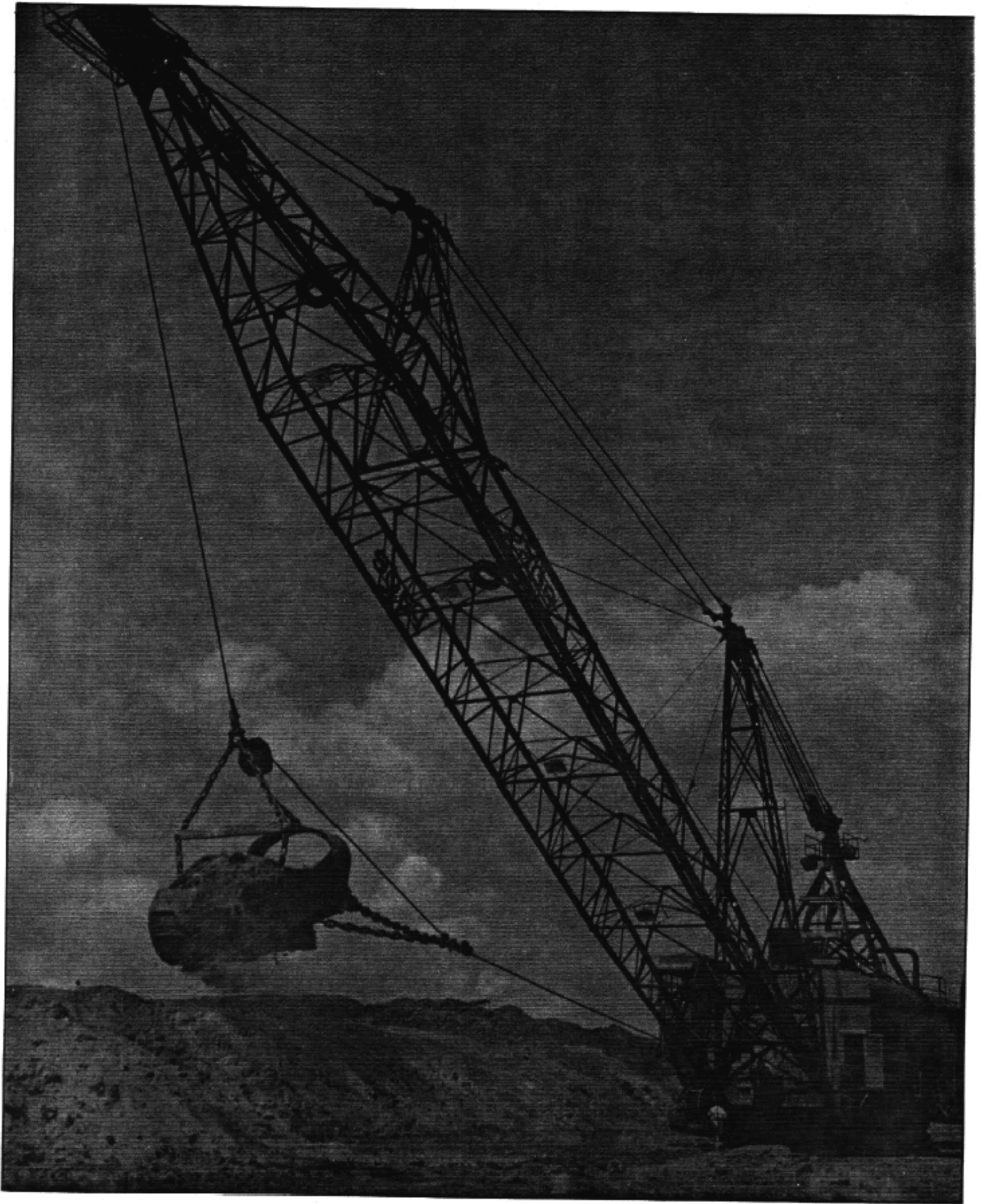
A dragline on a barge is pictured enlarging the Herbert Hoover Dike around the shoreline of Lake Okeechobee.

Pictured at dedication ceremonies for the Herbert Hoover Dike, January 12, 1961, are (l to r) Governor Farris Bryant, Ex-President Herbert Hoover and Ex-Governor Doyle Carlton.

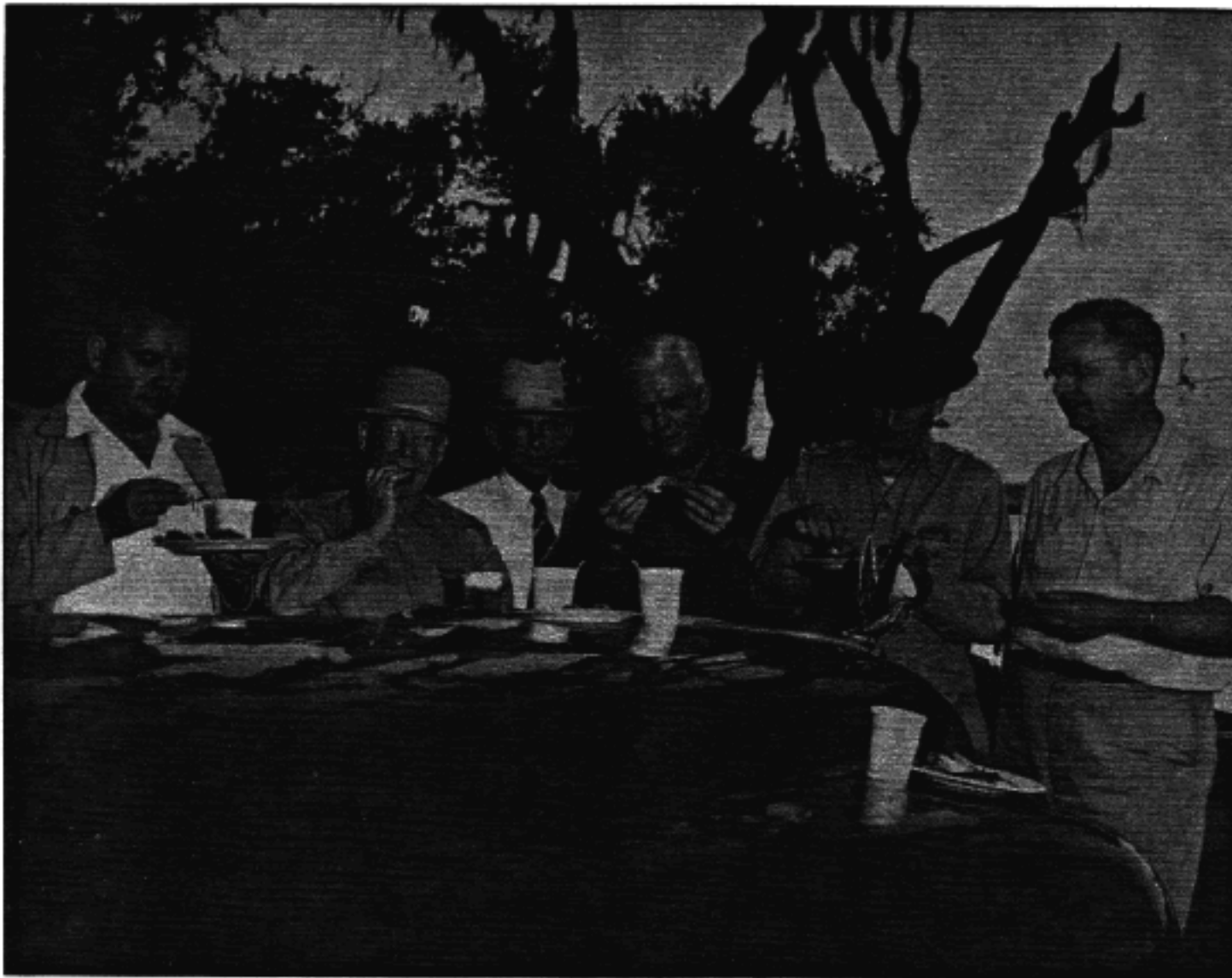




Work completed or under construction 1949 - June 1964

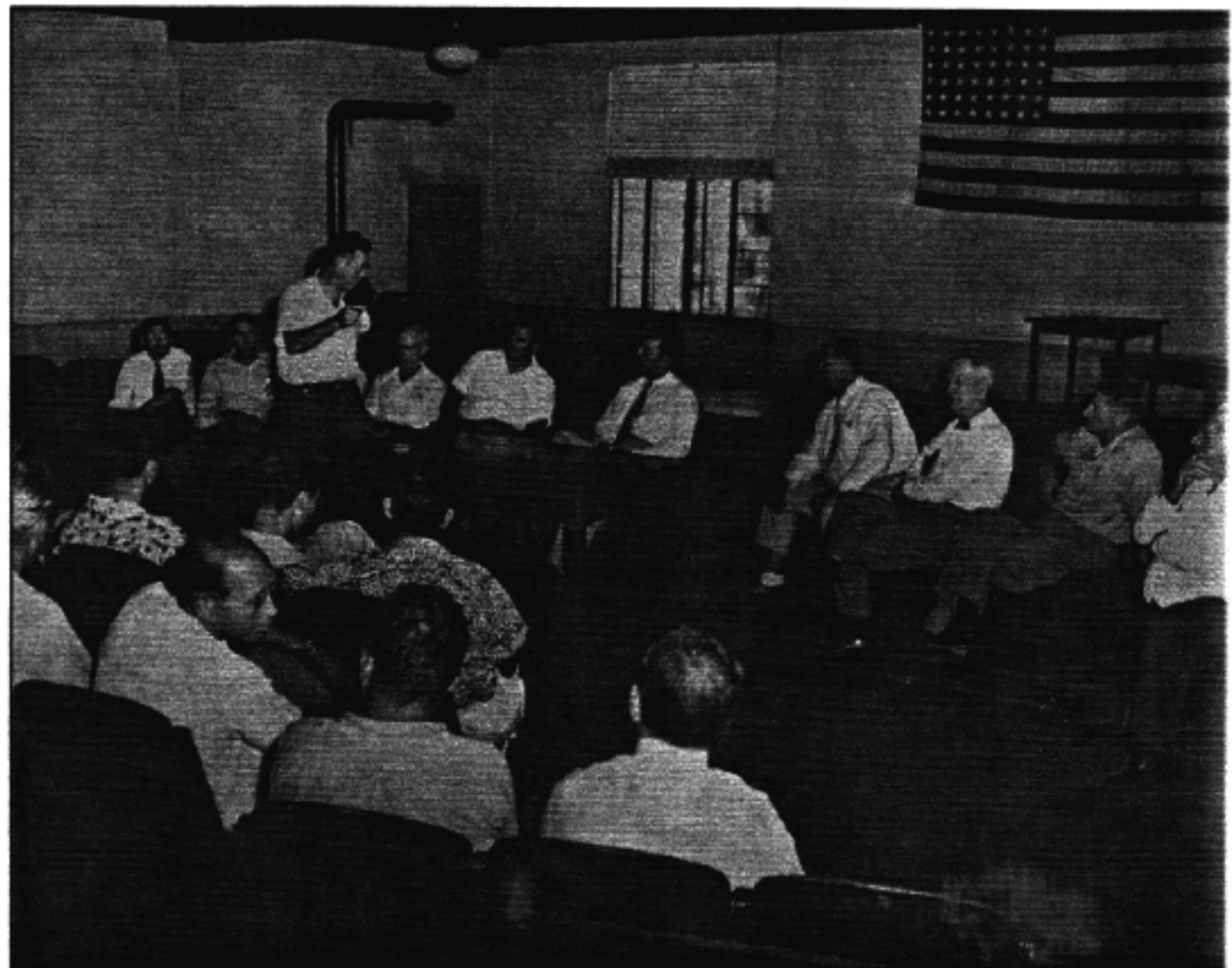


Construction on the Project begins.



Enjoying a barbeque lunch in early 1950 include: far left, Lamar Johnson; third and fourth from left, Governing Board members Henry Driggers and Joe Earman; and far right, FCD Executive Director Turner Wallis.

Early meeting in Stuart included fifth from left, Stacy Rogers, General Manager for the FCD, and third from right, Dwight Rogers, former congressman and father of Representative Paul Rogers.

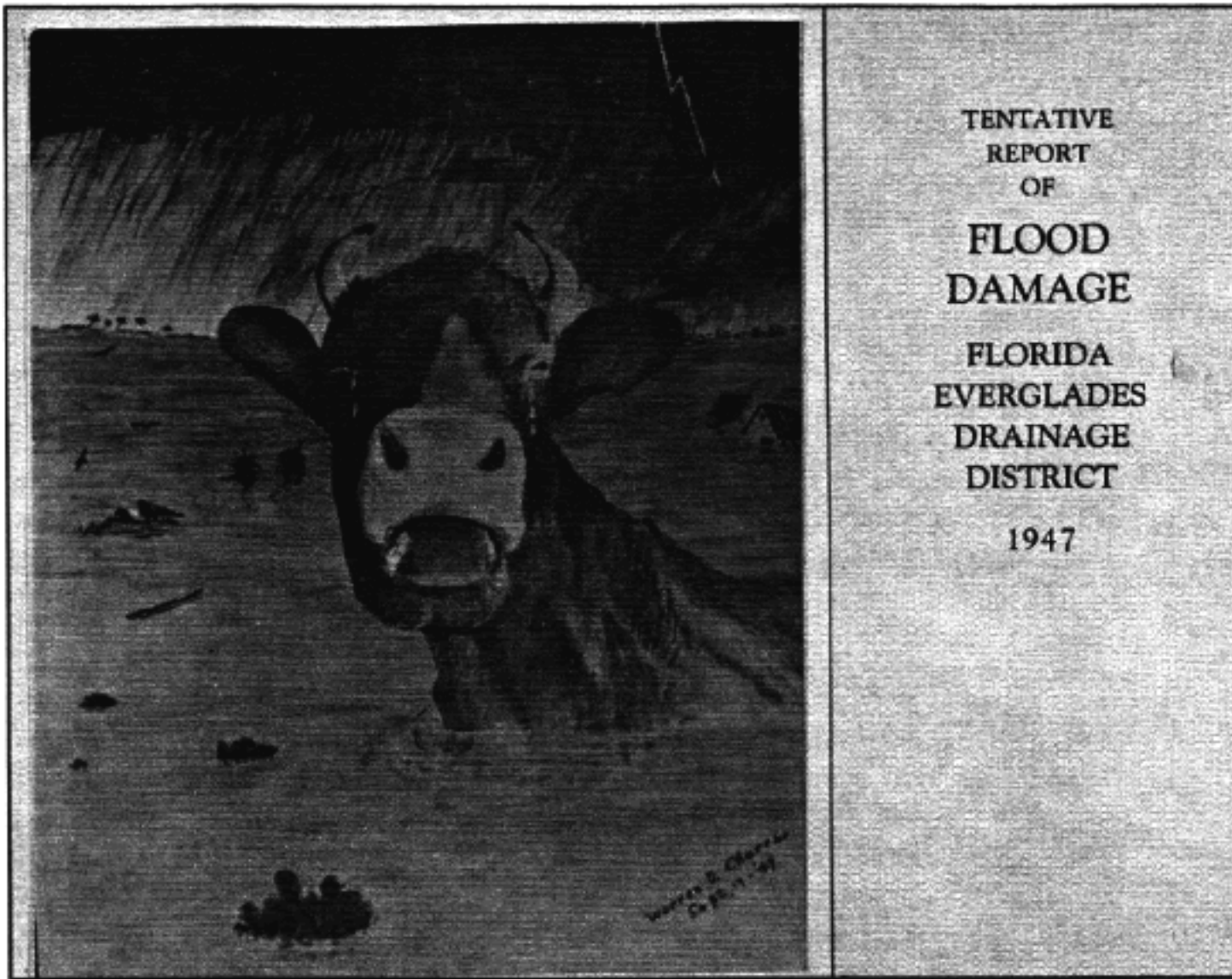




Signing of the bill creating
the Central and Southern
Florida Flood Control
District by Governor Fuller
Warren, June 2, 1949.

FCD first Governing Board.
Pictured l to r: Neil J. Hays,
Joe Earman, Dr. Fred
Bartleson, Dave Turner,
Lawrence Rogers and
Okeechobee Flood Control
District Chief Engineer Ben
Herr.





This report on the 1947 flood helped convince Congress to launch a \$208 million project.

Pre-FCD flood control meeting, November 1948 in Osceola County included (front row, r. to l.) Senator Spessard Holland, Congressman Claude Pepper, Governor Fuller Warren and Ex. Governor Millard Caldwell.

