

CHAPTER ELEVEN

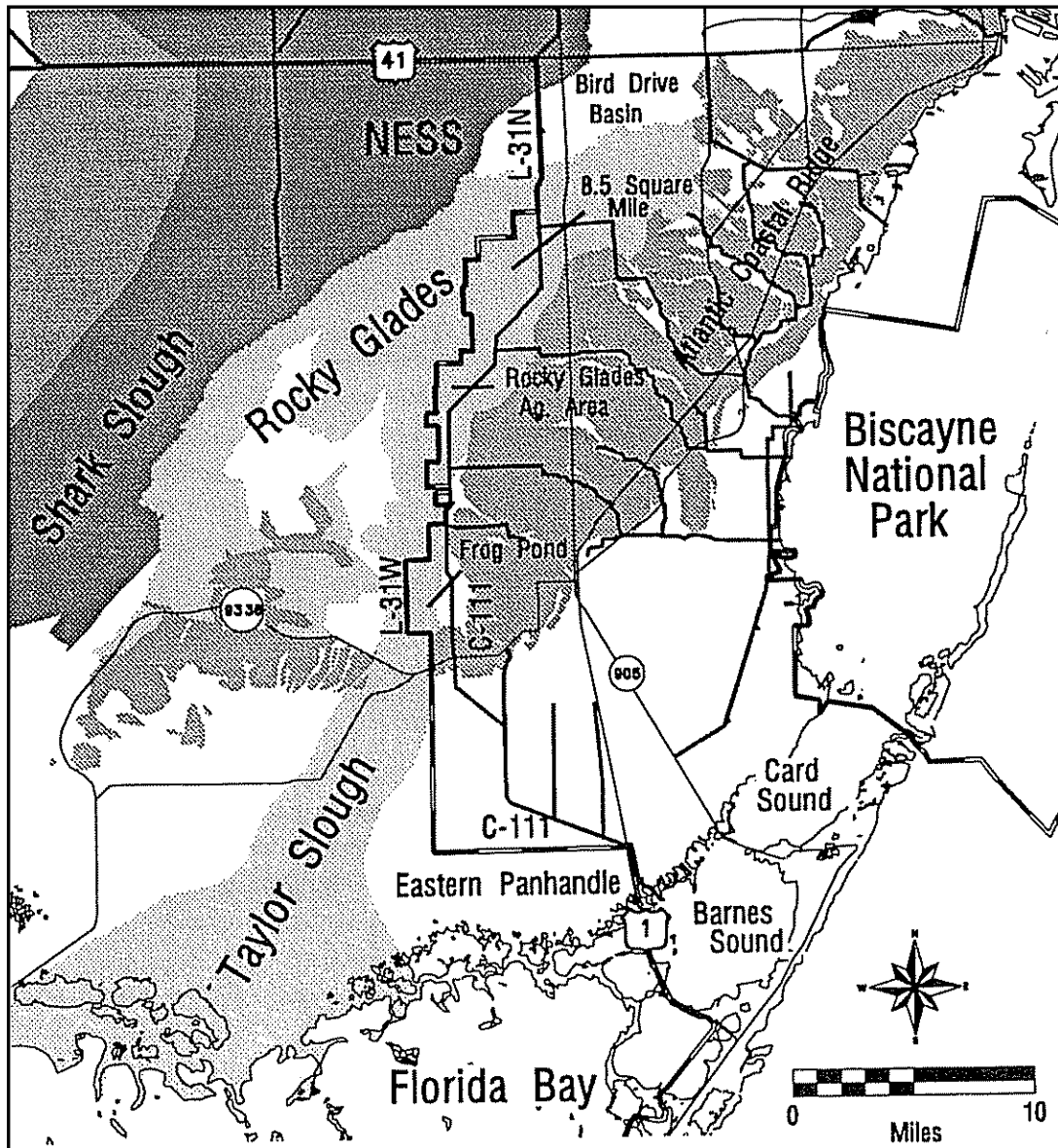
Brewing Storm: Development, Water Supply, and the East Everglades

Ecological problems in Everglades National Park were getting worse fast. That was the consensus among science experts at the beginning of the 1980s. The good news was that scientific evidence increasingly pointed to poor water management as the underlying cause of most of the Everglades' biological decline. If water deliveries to the park could be rectified, it followed, the Everglades might be saved. But scientific studies indicated that it was not enough simply to guarantee minimum quantities of water to the park. Rather, water management had to be modified so that water entering the park was distributed more nearly in the historic pattern of sheet flow. Moreover, the timing of water deliveries and duration of inundation – what was called “hydroperiod” – had to parallel the natural rainfall pattern.

Even as scientific understanding of the Everglades ecosystem improved, engineering solutions for modified water management became more difficult. Most of the sheet flow into Everglades National Park came through two broad sloughs: Shark River Slough and Taylor Slough. The entrance to both sloughs was an area bordering the east edge of the park that had remained practically uninhabited until recent years. By the early 1980s, it was lightly populated and portions were under cultivation. Initially, efforts to modify water deliveries to the park through this area focused on re-engineering options that would balance the park's water supply requirements with the flood control needs of these area residents. By the end of the decade, those options no longer appeared realistic. In certain portions of this hotly contested area, the protection of park values was incompatible with flood control. Increasingly, water managers believed it was necessary to buy out the landowners and change the use of the land. This thinking culminated in the Everglades National Park Protection and Expansion Act of 1989.

The East Everglades is the name given to an area bordering the east side of Everglades National Park. The East Everglades area in the 1980s (until a portion was added to the national park in 1989) encompassed some 153,600 acres or approximately 242 square miles.¹ It included the headwaters of Shark River Slough (until 1989) and Taylor Slough. Shark River Slough, the larger slough at approximately 25 miles wide, gathers some of its waters from north of the park in Conservation Area No. 3B; that portion of the slough that runs through the East Everglades area is called Northeast Shark River Slough. Taylor Slough drains approximately 40 square miles southeast of Shark River Slough. Sawgrass marshlands predominate throughout this area, while hardwood hammocks, or tree islands, occur on higher elevations.²

In terms of hydrology and biology the area is part of the Everglades ecosystem; in terms of land use and ownership it constitutes the farthest limits of Dade County's urban/rural interface abutting the park. Its boundaries in the 1980s were the Tamiami Canal on the north, the national park on the west and south, and Levee 31 and Canal 111 on the east. The Tamiami Canal and Levee, or L-29, it will be recalled, formed the southern edge of Conservation Area No. 3 and was completed by the Corps in 1963. L-31 was a southern extension of the eastern perimeter levee, while C-111 was at the southern end of this system and dated from the mid-1960s.³

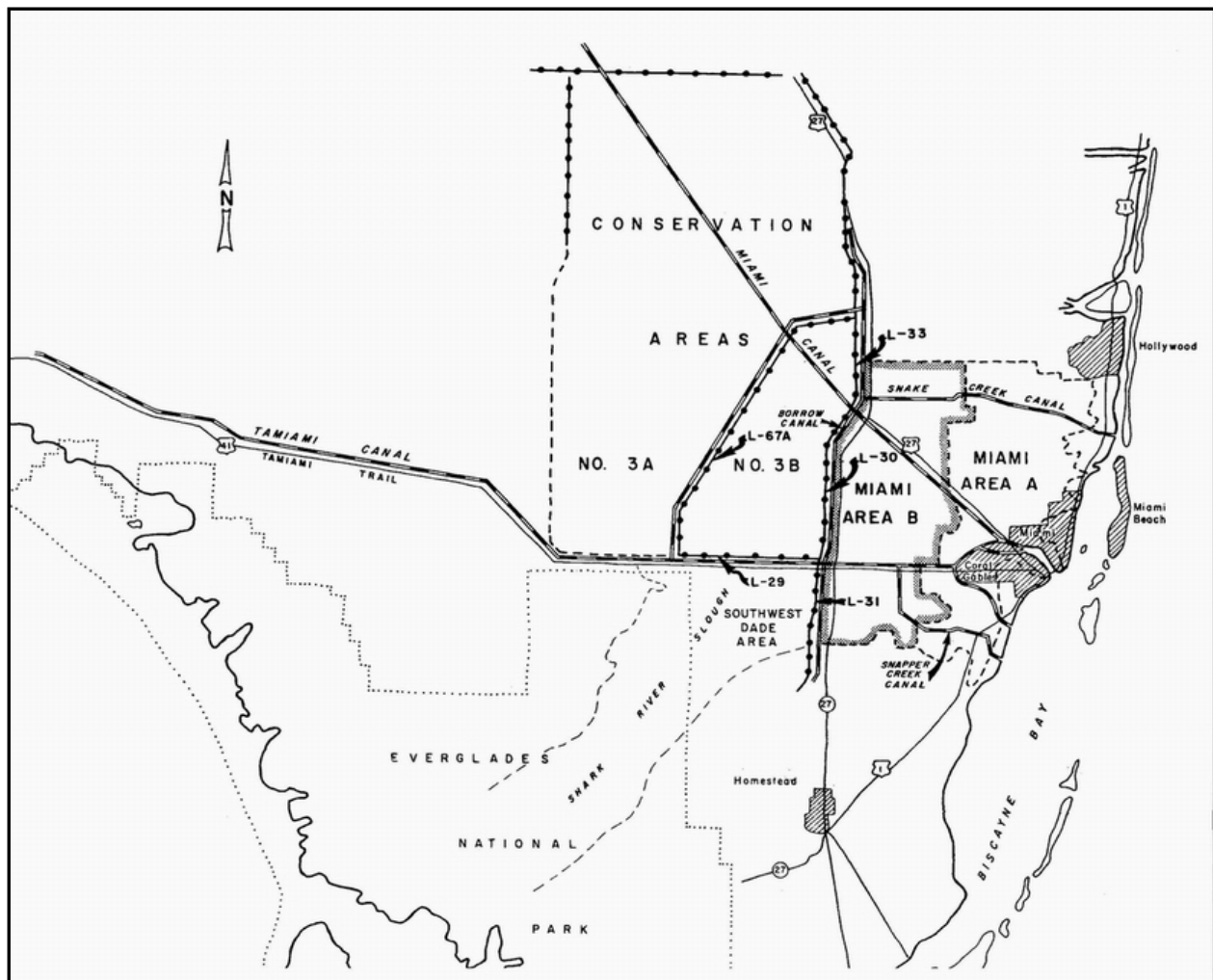


Map of the East Everglades area. [Source: Everglades National Park, "Seepage Control in Western Dade County" (1994).]

Although the land was mostly in private ownership, it remained largely uninhabited until the 1970s. Farther south, in the C-111 basin, it was still uninhabited in the 1980s, inundated by water during much of the rainy season. Early in the twentieth century the state had offered these lands for 25 cents an acre; speculators had purchased them in the 1920s and sold them as bonus property for the buying of land elsewhere. A generation passed and the worthless parcels of waterlogged property were sold and resold. The water conservation areas were created and portions of the East Everglades began to dry out. Even then, most of the area remained too wet to inhabit. Under the 1948 and 1954 congressional authorizations of C&SF Project works, the

Corps had received approval to construct L-31, running southwest from L-29, in order to provide flood and salinity protection to the area. As proposed, L-31 would consist of a northern portion (L-31N) and a western portion (L-31W); the western component would encompass a 5,000-acre area known as the Frog Pond, located at the head of Taylor Slough. Farmed as early as the 1940s, the Frog Pond had agricultural potential, but had attracted only a few vegetable growers to this point. In the 1960s, the Corps aligned the different L-31 parts, completing construction of L-31W in the early 1970s. These engineering works, combined with severe drought in 1971, exposed more ground, and by the mid-1970s the situation changed rapidly as people moved in to build residences and raise crops, attracted by the comparatively low price of land in this area of southwest Dade County.⁴

The government of Dade County was ambivalent about development of this area. In the early 1960s, the Metro-Dade County Commission supported a water control plan that would permit agricultural use during the dry season. The Southwest Dade Project received



The location of L-31 in Southwest Dade County. (Source: Jacksonville District, U.S. Army Corps of Engineers.)

congressional authorization in 1965, but after considerable planning by the Corps it was never built. County support for the project waned as the NPS began to voice opposition, fearing that the project would complicate efforts to convey water to Taylor Slough and the southeast corner of the park. County officials were even less enthusiastic about agricultural development in Southwest Dade County following the drought of 1971, which heightened concern about saltwater intrusion into the Biscayne aquifer. Nevertheless, Dade County classified nearly the entire area as agricultural in its land-use plan, and it supported construction of canals and levees north and west of the town of Homestead, which served to drain that area for crop production. It also passed zoning ordinances with stringent performance criteria that, in the minds of some residents, conveyed a public commitment to flood protection.⁵

The Corps, too, saw problems with development of the East Everglades. A farming practice known as “rock plowing” was particularly harmful to the environment. Farmers, when clearing the land for planting, would plow up the limestone substratum to augment the thin layer of topsoil. This limestone was very porous and acted as a filter as water percolated into the Biscayne aquifer. The Corps maintained that rock plowing was harmful to the aquifer. It discouraged the practice through its Section 404 permitting program, although by this time the Frog Pond area already bore the scars of rock plowing and the practice continued elsewhere to a limited extent.⁶

The Corps also required homeowners in the East Everglades to apply for Section 404 permits as they were filling in wetlands to improve their home sites. The agency notified some 50 residents that they must obtain permits. After residents ignored repeated orders by the Corps to desist, the U.S. Attorney’s Office brought suit against five offenders. U.S. District Judge James W. Kehoe ruled in favor of the government, persuaded by the testimony of eight government experts that dumping in the Everglades lowlands threatened the environment. One of the defendants, Russell Carter, formed a local group in defense of property rights and posted an anti-government sign in his yard. Another landowner threw “a pesky government bureaucrat” into a pond housing his pet alligator, while still others told the media that “if we don’t get justice through the courts we’ll get it with our guns.” Fairly or not, the homesteaders in the East Everglades were gaining a prickly reputation.⁷

In August 1981, Tropical Storm Dennis soaked the East Everglades with three days of torrential rain. Row crops of tomatoes and malanga disappeared under water. Avocado, lime, and mango groves were ruined. Roads around Florida City (between Homestead and the national park) remained impassable for three weeks following the storm. Farmers and homeowners angrily confronted SFWMD employees, accusing the district of deliberately ignoring their plight. Someone threw a pipe bomb into one of the canal structures on the edge of the East Everglades, though it failed to explode.⁸

If the county government had been dubious of this community before, it now took definite action to curtail further growth in the area, which soon became known as the 8.5 Square Mile Area. This moniker arose from the passage of a zoning ordinance on 27 October 1981 by the Board of County Commissioners stating that within the region, located in the East Everglades area west of the levees separating the park and the Miami suburbs, the county would permit only a maximum of one dwelling unit per 40 acres for residential use or one dwelling unit per 20 acres in conjunction with agriculture, replacing the existing one house per 5 acres regulation. The

ordinance also required notification of property purchasers and individuals seeking building permits that the county and the SFWMD had no drainage plan for the area. The Governing Board of the SFWMD endorsed the ordinance at a special meeting eight days prior to its enactment.⁹

The county aimed to slow growth in the 8.5 Square Mile Area in order to protect Miami's water supply, but it had difficulty enforcing the ordinance. Some property owners openly defied the ordinance, building homes without permits. Others worked the system, obtaining a permit to build seasonal housing for migrant farm workers, for example, and subsequently expanding it into a second permanent dwelling, thereby getting two residential dwellings onto 40 acres. Many of the landowners were Cuban refugees who were not familiar with the permitting process. Indeed, many had already paid too much for land that had been cynically advertised as "waterfront property" and they perceived the zoning restrictions and absence of flood security as added injustices.¹⁰

Settlement of the East Everglades, and specifically of the 8.5 Square Mile Area, encroached on the national park, resulting in loss of wetlands and wildlife habitat and further interfering with the natural sheet flow of water into the park through Northeast Shark River Slough and Taylor Slough. As homesteaders in the East Everglades drained their land, it set in motion the familiar train of disturbances: marsh fires, soil subsidence, and invasion of exotic species such as Australian pine and melaleuca. To have this occurring on the park's doorstep was especially harmful to fauna and flora. Many wildlife species used the upper sloughs within the East Everglades for nesting, feeding, foraging, and cover. It was estimated that the East Everglades had at one time provided 35 percent of South Florida's wood stork feeding grounds, but water level manipulation rendered the area unsuitable for this species during its crucial nesting period. Development pressure also caused a reduction in incidence of 12 rare, endemic plant species, which appeared to have a detrimental effect on the biological diversity and productivity of the flora in the adjoining portion of the park.¹¹

Park officials viewed these developments with growing concern. John M. Morehead, superintendent of Everglades National Park, welcomed the Dade County ordinance as a sign of "exceptional foresight" on the part of local officials, but it was the Corps, a sister federal agency, that held the key to improved water management in the area. In a long letter to Colonel Alfred Devereaux, Jacksonville District Engineer, in September 1982, the superintendent expressed gratitude that the Corps was studying water deliveries through the Shark River Slough and he urged the Corps to "examine ways to rejoin the historical hydrological equilibrium between the east Everglades, the Water Conservation areas, and Everglades National Park."¹²

Morehead stressed the importance of Shark River Slough for wildlife habitat, and explained that loss of wetlands within the East Everglades as a result of development or hydrological change would substantially reduce wildlife populations in the park. "We believe that this condition must be reversed," he noted. "Everglades National Park and the east Everglades are hydrologically connected and should be treated as one hydrological unit." In other words, Morehead urged a management approach that did not stop at the park boundary. In the superintendent's opinion, the federal interest in preserving Everglades National Park justified federal action outside the park. "There can be little doubt," Morehead stated, "that the future of Everglades National Park is intimately tied to the future of the Shark Slough within the east



Flooded residence in the 8.5 SMA. (Source: U.S. Army Corps of Engineers, Jacksonville District.)

Everglades.”¹³ This was a bold position that reflected recent changes in NPS thinking about how to approach “external threats” to national parks.

Morehead explained that the paramount need of the park was to obtain a more natural flow of water based upon rainfall in the drainage north of the park. Currently, water deliveries were based on a minimum monthly delivery schedule established under P.L. 91-282 (1970). A new approach was required. For one thing, the 260,000 acre-feet minimum allocation for Shark River Slough was based on median flows through Tamiami Trail culverts during the period 1940-1962. It had to be recognized, Morehead wrote, that these flow data were below pre-drainage era levels since six major Everglades drainage canals were already operational by that time.¹⁴

A revised water delivery schedule must also take into account natural fluctuations in rainfall within each season, Morehead argued. The current schedule was based on average monthly flows. The resulting monthly breakdown of the schedule provided for peak flows in October and minimum flows in April and May. While the current schedule did provide for some deviations in time of drought or high water, the magnitude and timing of the deviations were determined by urban and agricultural water supply needs rather than the park’s ecological needs. Morehead wanted a schedule that would allow fluctuations “in synchrony with the natural system; a system to which the slough’s animal and plant populations have become adapted over millennia.”¹⁵

Morehead had been arguing these points for two years. He had written a similar letter to Colonel Devereaux's predecessor, Colonel James W. R. Adams, in July 1980, in response to proposed changes in regulation water levels for Lake Okeechobee and the water conservation areas. The concern in the summer of 1980 was that Everglades National Park could face a water shortage if there was a "drawdown" of water levels in these other areas. The SFWMD and the Corps were making plans to lower the water level in the conservation areas for the purpose of giving vegetation (and the deer population) a chance to rebound under drier conditions. But the park's concerns went beyond questions of water shortage. The regulation levels tended to flatten out extreme high and low water events. While this certainly benefited agriculture and the urban populations, it harmed the park. "The trouble biologically with all such modulations is that in time the modulation reduces animal and plant diversity and favors only those few species that happen to be adapted to the modulation," Morehead cautioned. "In an ecosystem like the Everglades marsh that isn't particularly diverse in species to begin with, reduction in population and loss of species can happen dramatically and rapidly." Morehead posed a series of technical questions to Colonel Adams concerning the regulation schedules for the conservation areas. His last question was: "What modifications could be done to make the system react more fairly to systemwide rainfall?"¹⁶

The problem was deceptively complex. The C&SF Project was unique among the Corps' flood control projects in that it covered vast areas of impounded waters moving very slowly over a nearly imperceptible gradient. From an operational standpoint it took weeks, even months, to move water from one end of the system to the other. The Corps followed a schedule of water releases for each area that was more weighted toward water supply and flood control, although other purposes such as fish and wildlife benefits were also taken into account. Maximum water levels were set according to normal rainfall patterns, meaning that when water levels rose above the maximum allowed in the regulation schedule the Corps had a responsibility to open gates and move water out of the area, if only as a hedge against flooding in case of abnormally high rainfall perhaps two or three months in the future. Colonel Adams readily admitted that the system was imprecise and subject to the caprice of nature. "We're in a situation where science has gone about as far as it can in predicting Mother Nature but she still has the last card to play," he told an interviewer in 1981.¹⁷ Not surprisingly, while the park superintendent focused on fluctuations in nature, the District Engineer concerned himself with weather extremes.

The winter of 1982-1983 – an El Niño event – produced the kind of freakish weather that Colonel Adams warned about. Heavy rains began in October and continued through the winter – normally Florida's dry season – culminating in a 60-day, 20-inch deluge in January and February. The SFWMD made emergency releases from Lake Okeechobee to the St. Lucie and Caloosahatchee estuaries but that was not enough. The Corps opened the floodgates in the Tamiami Canal and levee along the northeast boundary of Everglades National Park, and from October 1982 through February 1983 the park received three-and-a-half times its minimum quota.¹⁸ In the month of February, when the minimum quota for releases through these structures was 9,000 acre-feet, the park received a whopping 88,000 acre-feet.¹⁹ While the C&SF Project afforded admirable flood protection to sugar cane fields in the EAA, winter crops in Dade County, and all the coastal cities in South Florida, the Corps succeeded only by dumping much of the excess water on the park. Ironically, at the same time that the four open gates in L-29 were disgorging water into the park at the rate of approximately five billion gallons per day,



S-12C looking south into Everglades National Park. (Source: U.S. Army Corps of Engineers, Jacksonville District.)

engineers and hydrologists in the Corps and the SFWMD were beginning to consult with the park's chief scientist, Gary Hendrix, on how to develop a rainfall-driven water delivery schedule. This was hardly the type of deviation from average monthly flows that Superintendent Morehead had in mind.

Indeed, the dumping of excess water on the park caused severe ecological damage. According to Jim Kushlan, a park wildlife biologist, the practice destroyed alligator nests and disrupted feeding patterns of the woodstork.²⁰ Morehead agreed. "Just as soon as the birds and gators would get their nests settled, they'd get blown away by waves of water," he related. These releases destroyed the "natural wet-and-dry rhythm" that had characterized water flow in the Everglades before drainage began, harming the lifeways of both flora and fauna.²¹

Insisting that floodwaters were causing grave harm to the park, Morehead and Hendrix requested an emergency meeting with the SFWMD. On 10 March 1983, Hendrix arrived alone in West Palm Beach and presented a seven-point plan to the SFWMD's Governing Board. He began by saying that in the past few months the park had been assessing the effects of the water

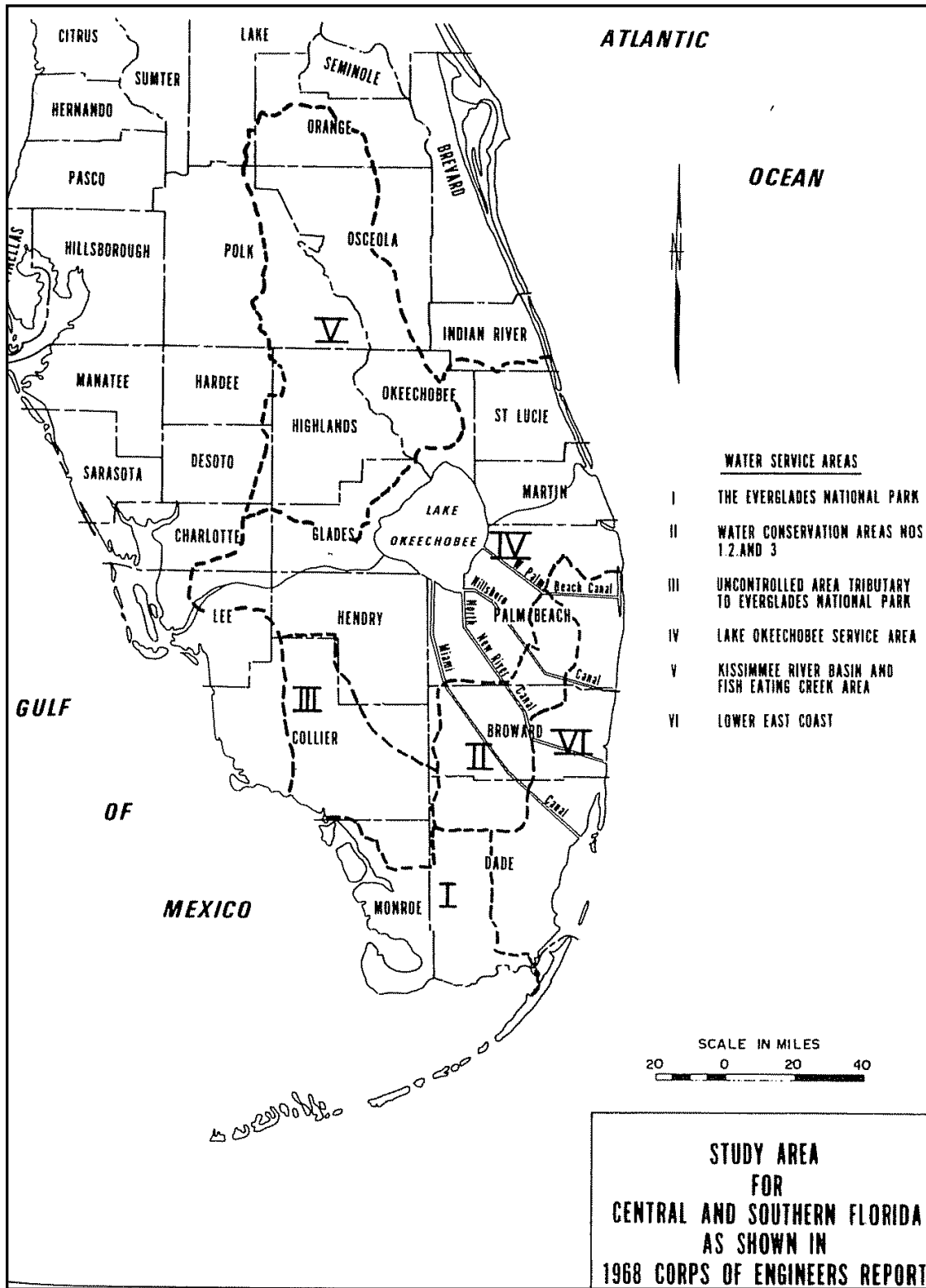
delivery schedule that had been in place since 1970 and the park staff had concluded that most of the degradation to ecological values in the park had occurred from excess water in the dry season. (This was the opposite, of course, from the longstanding perception that the Everglades was dying of thirst.) Both he and the superintendent believed that without some “urgent measures” the park could not “sustain much of its resources for very long.”²²

The first four points in the seven-point plan aimed at undoing the fragmentation of Conservation Area No. 3 and restoring sheet flow to the park. The plan called for filling in the L-28 canal, which ran north and south down the boundary of Conservation Area No. 3A and Big Cypress National Preserve; filling in the L-67 canal extension and removing the levee; rededicating Conservation Area No. 3B for water storage and sheet flow; and redistributing water deliveries from Conservation Area No. 3A along the whole length of the Tamiami Canal from L-28 to L-30. Collectively, these four actions would redistribute water flowing into the park from the confined area around the four floodgates in the Tamiami Canal to several historic drainages south of Big Cypress as well as the Northeast Shark River Slough. The fifth item called for a water quality monitoring program. The sixth was a request that the Corps and SFWMD defer any implementation of new drainage districts until impacts to the park were fully considered. The seventh and final point was to field test a new water delivery schedule starting as soon as possible.²³

At the end of Hendrix’s presentation the Governing Board recommended that the SFWMD’s executive director, John “Jack” Maloy, report to the board in a month with a studied response. When board member Jeanne Bellamy asked Maloy for his off-the-cuff reaction, he said that he was “overwhelmed.” “Oh, you’re never overwhelmed,” Bellamy prompted. “I’ll tell you one thing,” Maloy replied. “This is a real test of whether the organization is . . . a regular bureaucratic organization or something different.” A request of this scope, Maloy explained, would normally take the organization three years just to study it. “By then the Park will be a desert,” Bellamy cut in. Maloy noted that most of the points Hendrix brought with him had been discussed already with district engineers, but this was a lot to consider all at once.²⁴

In a letter to Marjory Stoneman Douglas and 16 other “Everglades watchers,” Nathaniel P. Reed, a member of the governing board, offered further commentary on the meeting, characterizing the Seven Point Plan as a “bombshell.” Reed seemed most surprised that Morehead, who enjoyed an exceptionally close working relationship with the board, had chosen to send a messenger instead of appearing himself. “When the District and the Park have had a problem during Morehead’s tenure, his presence, his explanation, his superb ability at negotiation have made the Board willing to find some area of cooperation,” Reed explained. After Hendrix made his proposal, Reed continued, the Corps representative, Carol White, “appeared to have apoplexy.” The emergency ploy was even a bit worrisome to Reed, who wondered if “emergency actions” were appropriate or wise. He noted that such Everglades experts as Art Marshall and Johnny Jones had “expressed sincere reservations” about implementing some of the park’s proposals without further study.²⁵

As a former assistant secretary of the interior, Reed offered his own analysis of the park’s Seven Point Plan. “*The Park’s request represents a major change in attitude,*” he headlined. “The new approach may be the result of the flood conditions inundating the Park or may reflect the Superintendent’s view that as the Department of the Interior and the National Park Service



Study area of the water supply restudy. [Source: U.S. Army Corps of Engineers, Jacksonville District, *Central and Southern Florida Water Supply: Reconnaissance Report* (1979).]

are not actively defending the Park's integrity [then] the local representatives must declare the present state of affairs an 'emergency' requiring 'emergency' measures."²⁶

Following the meeting, Maloy acted decisively. He redeployed staff to evaluate the Seven Point Plan at lightning speed, and then he called an "emergency meeting" of the Governing Board for 5 April. Defining the situation as an "emergency" gave him authority to issue an order without prior notice. He had his legal staff prepare a draft emergency order with findings of fact and conclusions of law for the Governing Board's approval.²⁷ At the Governing Board meeting on 5 April, Maloy duly reported on the SFWMD's technical response to the Seven Point Plan. He recommended support for all seven measures. If the board approved, the district would approach the Corps and the NPS and ask for financial help, recognizing the federal interest in protecting the national park. Maloy presented the board with the draft emergency order, which the board adopted.²⁸

Representatives of several environmental groups also attended the emergency meeting and expressed support for the Seven Point Plan. Peter Mott, president of the Florida Audubon Society, correctly noted that the seventh point, calling for a field test of a new water delivery schedule (and the abandonment of the present congressionally mandated one) would require an act of Congress. He predicted a "united front" on this matter in the coming year.²⁹ Two other attendees, Michael Hevener, executive director of the Dade County Farm Bureau, and William Earl, counsel for that organization, spoke on behalf of 5,800 farmers and 7,000 farm workers of Dade County. They worried that the Seven Point Plan would cause flooding, wreck crops, and damage private property. They wanted an EIS "for any structural changes that would affect the farming interests in south Dade County."³⁰ Immediately following the meeting, Earl sent a letter by courier to Colonel Devereaux, commander of the Jacksonville District, requesting an EIS.³¹

As the Corps and the SFWMD entered discussions about implementing the Seven Point Plan, it became clear that the Corps had serious misgivings. The main sticking point was the fate of the residential development in the East Everglades. Devereaux insisted that the Corps would not support steps to restore full flow through Northeast Shark River Slough until its study showed that area inhabitants would not be flooded out. Others were less sympathetic. Charles L. Crumpton, a member of the Governing Board and former Dade County planner, observed that 50 percent of the houses and 90 percent of the mobile homes in the East Everglades had been erected without building permits.³² No state officials would say so explicitly, but to Devereaux the meaning was clear: "To heck with these people. Just flood them out. Then they'll move. Then they'll get out of there." Devereaux disagreed with such a position, in part because he believed that, even though the property owners were "operating at their own risk in that area," the federal government should and could not "deliberately flood somebody, or increase the risk of flooding, without compensation." Devereaux admitted that restoring the flow to Shark River Slough would not cause immediate flooding of landowners, but it would raise the groundwater table, elevating the possibility of a flood. "I just did not personally feel, nor did my superiors feel," he later recollected, "that the Corps of Engineers could be party to anything that would do that."³³

To break this impasse, Congressman John Seiberling (D-Ohio), chairman of the House Subcommittee on Public Lands and National Parks, visited South Florida with three members of the subcommittee – James Weaver (D-Oregon), Bruce Vento (Democrat-Farmer-Labor-

Minnesota), and Thomas Lewis (R-Florida) – at the end of April. Their three-day tour ended at SFWMD headquarters in West Palm Beach, where Seiberling had some stern words for the Jacksonville District commander. “I am here because I was told there is an emergency by a lot of experts,” Seiberling said. “It’s your position there is no emergency?” Devereaux responded, “There is no emergency right now. No sir.” Everyone in attendance – the four congressmen, the Governing Board members, SFWMD staff, and park staff – could not believe the colonel’s words. Seiberling asked incredulously, “There is a congressional subcommittee here because there’s an emergency. . . .What does it take to prove it?” Congressman Lewis demanded, “What makes you think we don’t have an emergency? What does it take – the East Coast sliding off?”³⁴ The colonel remained impassive.

Devereaux probably held his ground on this point because he was operating under a different code of authorities than the SFWMD and the NPS. He later explained to an interviewer, “I couldn’t use emergency measures, because emergency measures can’t be used for environmental purposes.”³⁵ The Corps’ authorities to deal with an emergency came from Public Law 84-99, first passed in June 1955 and amended several times since. According to this law, when flooding, hurricanes, or drought constituted an emergency, the Corps could engage in any action “which is essential for the preservation of life and property,” such as strengthening existing flood control structures, constructing temporary levees, clearing channels, removing debris and wreckage once a flood had receded, and providing clean water to regions in need. Nowhere in the act did it authorize the Corps to take emergency measures for environmental preservation purposes.³⁶ By contrast, Florida state law explicitly allowed Maloy authority to protect wildlife and fish if he and the Governing Board found an emergency existed.



Flooding in East Everglades area. Source: U.S. Army Corps of Engineers, Jacksonville District.

Nathaniel Reed, who sat at Seiberling's side in the meeting at SFWMD headquarters, by now had resolved any doubts in his own mind about the need for emergency measures. Reporting on the congressional tour to Richard Davidge, a Watt loyalist who occupied the assistant secretary position that Reed himself had held in the Nixon and Ford administrations, he wrote: "To everyone's astonishment, Col. Devereaux, the District Engineer, was totally uncooperative." It was not clear to Reed if the colonel was acting under orders or on his own initiative, but he had never seen such a hard line in his 30 years of involvement with the Everglades. "Apparently, the District staff is in an upheaval. The older in service staff members are rear guarding and resist any changes. The younger staff [members] want to solve the ongoing Everglades crisis and agree to be innovative." Reed ended his letter to Davidge with a warning and a plea. "The general perception is that the Administration has written off Everglades Park. I urge you to give this issue priority."³⁷

Throughout 1983, the SFWMD strove for rapid implementation of the Seven Point Plan, including opening S-333 in April to allow water to flow to the eastern third of Everglades National Park. The Corps, meanwhile, took a more deliberative approach. Those different approaches were evident in how each agency dealt with challenges to the plan from farmers and property owners. Perhaps the most serious challenge involved efforts by residents of the 8.5 square mile area to have the restrictive county zoning ordinance lifted. Spurred on by droughts in the 1970s that convinced many that flooding would not be a serious problem, the area had grown into a community of approximately 800 persons, who had constructed several hundred residences and agricultural structures to serve the region's numerous plant nurseries and farms.³⁸ As we have seen above, Tropical Storm Dennis debunked the flooding myth, making some residents clamor for a government-sponsored drainage plan and better flood protection, while others merely wanted to subdivide their land and cash out.

Underpinning the zoning ordinance was a county ruling that the East Everglades was an "Area of Critical Environmental Concern." When Maloy learned that the Dade County Board of Commissioners was considering a repeal of that ruling, he acted swiftly and decisively to move the issue up to the state level. On 22 June, he appealed to Dr. John M. DeGrove, secretary of the Department of Community Affairs (the state land planning agency), to initiate the process of designating the East Everglades an "Area of Critical State Concern."³⁹ Governor Bob Graham established the Everglades National Park/East Everglades Committee on 7 February 1984 – a major step in the designation process and a strong indication that the state would likely assert control if Dade County backed off its own environmental protection plan.⁴⁰

The Corps, meanwhile, contended with a legal challenge, which would eventually become known as *Kendall v. Marsh*, after the Dade County Farm Bureau filed suit in U.S. District Court on behalf of East Everglades farmers and property owners. Concerned that knocking gaps into L-67 would flood 80,000 acres of vegetable and fruit farms, the farmers sought an injunction that would prevent the Corps from modifying any structures in the C&SF Project until it completed an EIS. The farm bureau contended that the removal of levees was not an emergency procedure and that agriculturists would "suffer substantial and irreparable harm" from "higher ground water and increased flooding danger" if the Corps was allowed to proceed.⁴¹ Wanting to forestall litigation, and without any authority to implement the Seven Point Plan, the Corps moved cautiously on any elements that might result in flooding of crops and homes in the East

Everglades. The Corps also arranged for meetings with the farmers without notifying or consulting the SFWMD, much to the dismay of Maloy. Despite these efforts, the suit continued into 1985.⁴²

The Corps' deliberative approach frustrated the park superintendent, state water managers, and environmentalists, all of whom wanted prompt action and believed that the Corps should move ahead undeterred by the threat of lawsuits. The Corps was already on record concerning the first four points in the Seven Point Plan – the modifications to L-28 and L-67 and the redistribution of waters in Conservation Area No. 3A and 3B – but the report was still in draft. To implement those measures immediately would be to circumvent the standard process of sending project proposals up through the Board of Engineers and Congress. As Colonel Devereaux later explained to an interviewer, the park, by declaring an emergency and getting members of Congress involved, “put an extraordinary amount of political heat on the Corps to implement these things as rapidly as we could.” It placed Devereaux in a tenuous position because he did not have legal authority to expend funds for the actions that the park and SFWMD wanted done.⁴³

The Corps was relatively receptive to the first action: modifications to the western levee, or L-28, in Conservation Area No. 3A. It was the least controversial action because it did not affect agricultural interests in Dade County. The Corps modified this levee so as to divert waters entering 3A back into Big Cypress National Preserve, from which they flowed to the western side of Everglades National Park. To accomplish this it breached the L-28 tie-back levee, installed culverts connecting the inside and outside canals on either side of the L-28 levee, and put plugs in the lower collector canal.⁴⁴ This work was completed in March 1984.

The second point in the plan, removal of the L-67 extension, was more problematic, as it required the removal of structures already built. The Corps finally agreed to take more modest measures. It would install two control culverts or “plugs” in the canal in order to add resistance to its flow, forcing some of the water to move to the west. It also discussed putting gaps in the last four miles of the levee. When Nathaniel Reed heard of this he wondered if the park was backing off its request to have the entire canal and levee removed. Morehead informed Maloy, “We go along with these gaps only because it is action of some sort.”⁴⁵ However, the Corps did not actually place gaps into L-67 until another crisis arose a few years later over the status of the Cape Sable seaside sparrow.

When it came to redistributing the waters in Conservation Area No. 3A and 3B in order to restore more sheet flow into the park, the Corps and the SFWMD disagreed about what to do. All the water entering the park from Conservation Area No. 3A came through a set of four gates spaced along the Tamiami Canal called S-12A, S-12B, S-12C, and S-12D. Most of the water came through S-12D. In order to spread this inflow into the park the Corps closed S-12D, forcing more water through the other three gates. The SFWMD argued that this was a half-measure. It proposed to use S-333 and divert water from Conservation Area No. 3A into the Tamiami Canal, where it would flow east and then south through a series of 53 culverts under U.S. Highway 41, thereby feeding into the Northeast Shark River Slough. The Corps maintained that this would be a misuse of S-333 as it would likely flood out residents in the East Everglades area. The disagreement became bitter as state water managers tried to assert their prerogative to

operate the C&SF Project as they saw fit, while the Corps insisted that the interests of property owners in the East Everglades must come first.⁴⁶

Maloy raised the dispute over S-333 with the Department of Environmental Regulation, threatening to make control of the C&SF Project into a states rights issue. Colonel Devereaux offered to meet with the governor.⁴⁷ Finally, in January 1984, the Corps and the SFWMD reached a compromise; the Corps consented to new operating criteria for S-333 and water began to flow through this gate into Northeast Shark River Slough. The operating criteria were to be incorporated into the field test of a new water delivery schedule for the park (the seventh item in the Seven Point Plan).

The last point in the Seven Point Plan had to be addressed by Congress. Congressman Dante Fascell (D-Florida) introduced a bill in the House authorizing the Secretary of the Army to modify the water delivery schedule for the park. The measure was incorporated into a supplemental appropriations act for 1984, enacted in November 1983. The law provided for a two-year field test to begin immediately and authorized the Secretary of the Army to acquire farmlands that would be subject to flooding and to construct flood protection works for homes in the area. It provided \$10 million for land acquisition.⁴⁸



S-333 looking west. (Source: U.S. Army Corps of Engineers, Jacksonville District.)

The Corps regarded this law with a great deal of skepticism – it could not possibly do all these things in the two-year timeframe that the law required – but by January 1985 it had prepared a “General Plan for Implementation of an Improved Water Delivery System to the Everglades National Park.” The plan set out a strategy for how the Corps would comply with P.L. 98-181. It required an innovative, expedited process, for the law had already circumvented the usual steps in which the Corps reported to Congress with a reconnaissance study, followed in a few years by a feasibility study. Instead, the Corps would proceed straight to the preparation of a General Design Memorandum, and, concurrently with that effort, it would prepare an EIS and conduct a “limited field test.” The field test would “not significantly impact residential or agricultural interests.”⁴⁹

The field test rested on a compromise agreement that the Corps had worked out with the park, the SFWMD, and area farmers during the preceding year. The farmers, in their lawsuit against the Corps, raised two demands. The first, as already noted, was to delay additional water releases into the Northeast Shark River Slough until the Corps had prepared an EIS. The second demand was that the Corps should continue its annual fall drawdowns of water levels in the Frog Pond to assist fall planting. The park believed that the fall drawdowns, which flushed water through the L-31W and C-111 canals into Barnes Sound, sucked water out of the park as well. On the recommendation of the SFWMD, and to head off litigation, the park agreed not to object to the fall drawdowns for one year if, in turn, the farmers agreed not to oppose water releases into Northeast Shark River Slough.⁵⁰

By the time the field test was set to begin, it came under the purview of the Everglades National Park/East Everglades Committee, established by Governor Graham in February 1984. This committee was also called the 380 Committee because it was formed according to Chapter 380 of the Florida statutes for the purpose of recommending whether the East Everglades should be designated an Area of Critical State Concern. Governor Graham charged this committee with finding consensus among the many disparate agencies and competing interests that had locked horns over water management in the East Everglades. The committee included federal, state, regional, local, tribal, and non-government representatives. The Miccosukee Tribe was represented on the committee, as were environmentalists, Dade County businessmen, East Everglades residents, and farmers. Colonel Devereaux sat on the committee for the Corps, and Superintendent Morehead represented the NPS, while the Florida Game and Fresh Water Fish Commission participated on behalf of fish and wildlife interests.⁵¹

After more than a year of study, the committee submitted an “implementation plan” to the governor. The plan proposed a three-part strategy for improving water management in the area. The first part of the strategy was to establish an “iterative testing process.” (This corresponded with the “field test” authorized by Congress.) Incremental changes to existing structures and operating procedures would be introduced and analyzed to determine best water management practices. The process, of course, would involve collaboration by the Corps, the SFWMD, and the NPS. In the second part of the strategy, the committee formed the Southern Everglades Technical Committee, a subgroup of hydrologists and ecologists who would review the analysis on the iterative testing process and recommend changes. Recognizing that this group’s recommendations could be controversial, the third part of the strategy was to impose a conflict resolution process for solving, or even mediating, disputes as they arose.⁵²

The committee's implementation plan focused, appropriately enough, on fashioning a workable administrative process. But it also provided a consensus-based view of the myriad land and water management problems that beset the park and the East Everglades. Significantly, the 90-page report recognized the ecological importance of restoring sheet flow through Northeast Shark River Slough, as well as the adverse impacts of certain farming practices, including rock plowing, on water quality. The committee also recommended that the 8.5 square mile area be provided with flood protection adequate to protect the community from a one-year-in-ten flood.⁵³

The considerable time and commitment that went into the Everglades National Park/East Everglades Committee sowed good will among the many parties, and it produced about three years of concerted effort at building consensus. The Corps and the SFWMD began making field tests of water flows into the East Everglades in early 1984 and continued making them through the following year and into the next under the committee's watchful eye. Near the end of 1985 the Corps began making controlled releases of water south of the Tamiami Canal to simulate natural sheet flow in response to rainfall, while the SFWMD used the field tests to refine its hydrological computer model.⁵⁴

Meanwhile, the NPS initiated studies of aquatic vegetation where the sheet flow was tentatively being restored for the purpose of measuring water quality. These studies showed alarming results. Water flowing into the park from Conservation Area No. 3 was so laden with nutrients from the agricultural areas that it was altering plant life in the park. Both the Corps and the SFWMD had a growing body of data on water quality based on water sample analysis. According to an interagency memorandum of agreement on water quality executed in February 1984 (pursuant to the fifth point in the Seven Point Plan) the Corps collected samples of surface water at specific locations and tested them for pesticide residues and trace metals, providing data to the SFWMD and the NPS on a monthly basis. The SFWMD had a similar responsibility.⁵⁵



Cattails in the Everglades. (Source: South Florida Water Management District.)

Experts all over South Florida recognized that agriculture was loading nutrients into an ecosystem that was naturally nutrient-deficient; the spread of cattails through the water conservation areas provided proof. What they did not yet know was the extent to which nutrient “dosing” (or the addition of nutrients to the area) was affecting the ecology of Everglades National Park.⁵⁶

Amid this synchronous hum of activity by the three agencies, a turnover of leadership occurred: Colonel Charles Myers III relieved Devereaux of command over the Jacksonville District, John R. “Woody” Wodraska replaced Maloy as executive director of the SFWMD, and Michael Finley took the place of Morehead as superintendent of Everglades National Park. The new leadership, coupled with a perception on the part of environmentalists that changes in water management were occurring too incrementally, led to renewed disagreement over how to implement a new water management regime in the East Everglades.⁵⁷

Superintendent Finley brought a new edge to the park’s demands. Finley was a rising young star in the NPS, and Everglades National Park was a difficult post. The director of the NPS, William Mott, met Finley at National Airport in Washington, D.C., for what Finley thought was an interview. Instead, Mott simply told Finley he wanted him to go down to Florida and do what he could for the Everglades. Finley arrived in June 1986, and it did not take him long to decide that the Everglades were in “great jeopardy,” that this was a “system approaching collapse.” He quickly came to appreciate that the causes and the politics were complex. The Seven Point Plan and the Supplemental Appropriations Act of 1984 notwithstanding, Finley took the view that “the park was not at the table nor taken seriously by any of the water management agencies.” His job, he believed, “was to get the park taken seriously.”⁵⁸

Despite Finley’s efforts, the SFWMD altered its position on the East Everglades following a 1987 change in state governors from the Democrat Graham to the Republican Bob Martinez. Whereas Graham had appointed a number of champions of Everglades National Park to the Governing Board of the SFWMD, the new governor returned the membership of the board to a more pro-business, pro-agriculture orientation. Woody Wodraska, executive director of the SFWMD since 1985, responded to the new dynamic – as did farmers. Although the SFWMD continued to support new approaches to water management in the East Everglades, after 1986 it leaned more toward agricultural interests.

The breach between the SFWMD and the park occurred over the Frog Pond, which had begun to attract interest in the mid- to late 1970s when drier conditions encouraged much more intensive use. Farmers began planting tomato crops in the area as soon as standing water receded in the fall. After a winter harvest and the coming of summer rains, the Frog Pond once more filled with water. With the return of wetter weather in 1982, the Corps and the SFWMD began operating the L-31W canal as a means to prevent these tomato crops from being flooded in the fall and winter. The park considered this use of the canal inappropriate, since it had been built as part of the South Dade Conveyance System for the purpose of getting water to Taylor Slough and the southeast corner of the park. In 1984, the park consented to this use of the L-31W canal for one year in return for the farmers’ permission to allow field tests in Shark River Slough. The SFWMD renewed this arrangement with the farmers for two years following. In May 1987, the Governing Board passed a resolution calling for a phase-out of the use of L-31W by 1990, and construction of an internal drainage system so that excess water in the Frog Pond

during the winter growing season would drain east. The purpose was to ensure there would be “no net reduction in farmable acreage in the Frog Pond.”⁵⁹

It seemed to Superintendent Finley that neither the SFWMD nor the Corps was following through on earlier commitments to restore natural flow to the Taylor Slough. Draining the water to the east would still leave Taylor Slough in short supply. Moreover, draining the Frog Pond to the east depended on lowering the water level in the C-111 canal, with consequences for the southeast corner of the park and Florida Bay. The water level in the C-111 basin was normally maintained by a gated culvert structure or “plug” (S-197) in the lower end of the C-111 canal, which the Corps had added to the project in the 1960s as a result of a lawsuit by the National Audubon Society. Occasionally the Corps removed this plug to provide flood relief for the C-111 basin. It had done so in 1981, 1982, and 1985. Overruling the park’s objections, the Corps removed the plug again in 1988. For eight days, freshwater discharged in massive quantities through the C-111 canal into Barnes Sound and Florida Bay, with deadly consequences for the saltwater marine life.⁶⁰

For all of these reasons, Finley believed the NPS must take a separate road in order to get acceptable water management. “My view,” Finley recalled in an interview, “was that this was going to have to be forced either by public opinion and politics or by the courts. Individual agency action wasn’t going to do it – they either didn’t have the guts or the ability to do it.”⁶¹ One surprise, however, was Governor Martinez’s strong support for his predecessor’s “Save Our Everglades” program. When Martinez was elected governor in November 1986, the environmental community was dubious. The Everglades Coalition immediately



The Frog Pond agricultural area. (Source: U.S. Army Corps of Engineers, Jacksonville District.)

invited the governor-elect to address the coalition’s second annual conference in January. Meanwhile, Governor and Senator-elect Bob Graham communicated with Martinez about the importance of sustained gubernatorial focus on the federal-state agenda for Everglades restoration. According to one administrative official, it was Graham’s intention to present the new governor “with early opportunities to work visibly and productively with the Congressional Delegation on Save Our Everglades issues.”⁶² Graham had built strong public support in Florida for Everglades restoration, and the outgoing governor suggested that Martinez would be wise to embrace this popular agenda. Should he do so, it would “help establish a positive climate for dealing with the Congressional Delegation on other issues of interest to the Governor.”⁶³ Martinez took this bait. After taking office, he quickly positioned himself to lead a number of

Save Our Everglades program initiatives, and he retained Graham's Save Our Everglades program coordinator, Estus Whitfield, on his staff.

In 1987, Martinez took important steps for expanding Big Cypress National Preserve, improving the water quality of Lake Okeechobee, and accomplishing restoration of the Kissimmee River. If there was one thing that distinguished Martinez's overall approach to saving the Everglades from that of Graham's, it was the Republican governor's emphasis on just compensation for private property takings. "The key to protecting and restoring the Everglades is land acquisition," Martinez announced toward the end of 1987.⁶⁴ At Martinez's urging, the state legislature increased the Conservation and Recreational Lands fund by \$200 million over the next nine years.

With regard to the East Everglades, Martinez announced on 22 January 1988 a federal-state initiative to acquire approximately 70,000 acres in public ownership. Two months later, the governor established the East Everglades Land Acquisition Task Force, with members drawn from federal, state, and local government, as well as the environmental community and private landowners. The task force's job was to evaluate the feasibility of joint federal/state acquisition of the land, and to develop a plan for acquiring, managing, and protecting it. In particular, the task force was to report to the governor in six months as to whether the state of Florida ought to support federal legislation to expand Everglades National Park in this controversial area.⁶⁵

The task force made its report to the governor on 1 October 1988. It recommended three areas for inclusion in Everglades National Park: first, the Northeast Shark River Slough, containing 70,740 acres; second, the state-owned East Everglades Wildlife and Environmental Conservation Area, containing 34,560 acres; and third, an area between the wildlife sanctuary and the L-31 canal, containing about 2,300 acres. Five other tracts, it stated, should not be included: the area between the L-31 canal and Krome Avenue (the outskirts of Homestead), the 8.5 square mile area, the developed agricultural area south of it, the Frog Pond, and an area south of the Frog Pond known as the Aerojet lands. However, most of the Aerojet lands were newly acquired by the SFWMD using Save Our Rivers program moneys and the task force suggested this area might be added to the park at a later time. It proposed that the lands be acquired using the federal land acquisition process. It suggested that hunting should be prohibited and airboat use should be phased out in the additions to the park. It also recommended that field tests of modified water delivery to the park, currently set to expire in January 1989, should be continued "until the land acquisition is accomplished and the permanent water delivery program proposed in the Corps of Engineers General Design Memorandum begins."⁶⁶

Soon after the committee made its recommendations, Congressman Dante Fascell introduced legislation expanding Everglades National Park in the House, while Senator Bob Graham and Senator Connie Mack III (R-Florida) co-sponsored similar bills in the Senate. Mack, a former member of the House, had been elected as Florida's junior senator in November. The bipartisan showing by Florida's two senators helped the bill's prospects. Also important was the election of George H. Bush as president. In his political campaign, Bush had promised to be "the environmental president," a pledge environmentalists regarded with skepticism. Yet it did seem that Bush was genuinely more interested in protecting ecological values than President Ronald Reagan. A few weeks prior to his inauguration, President-elect Bush went sport fishing in the Florida Keys, and, through a prior arrangement, Superintendent Finley boarded Bush's boat for a

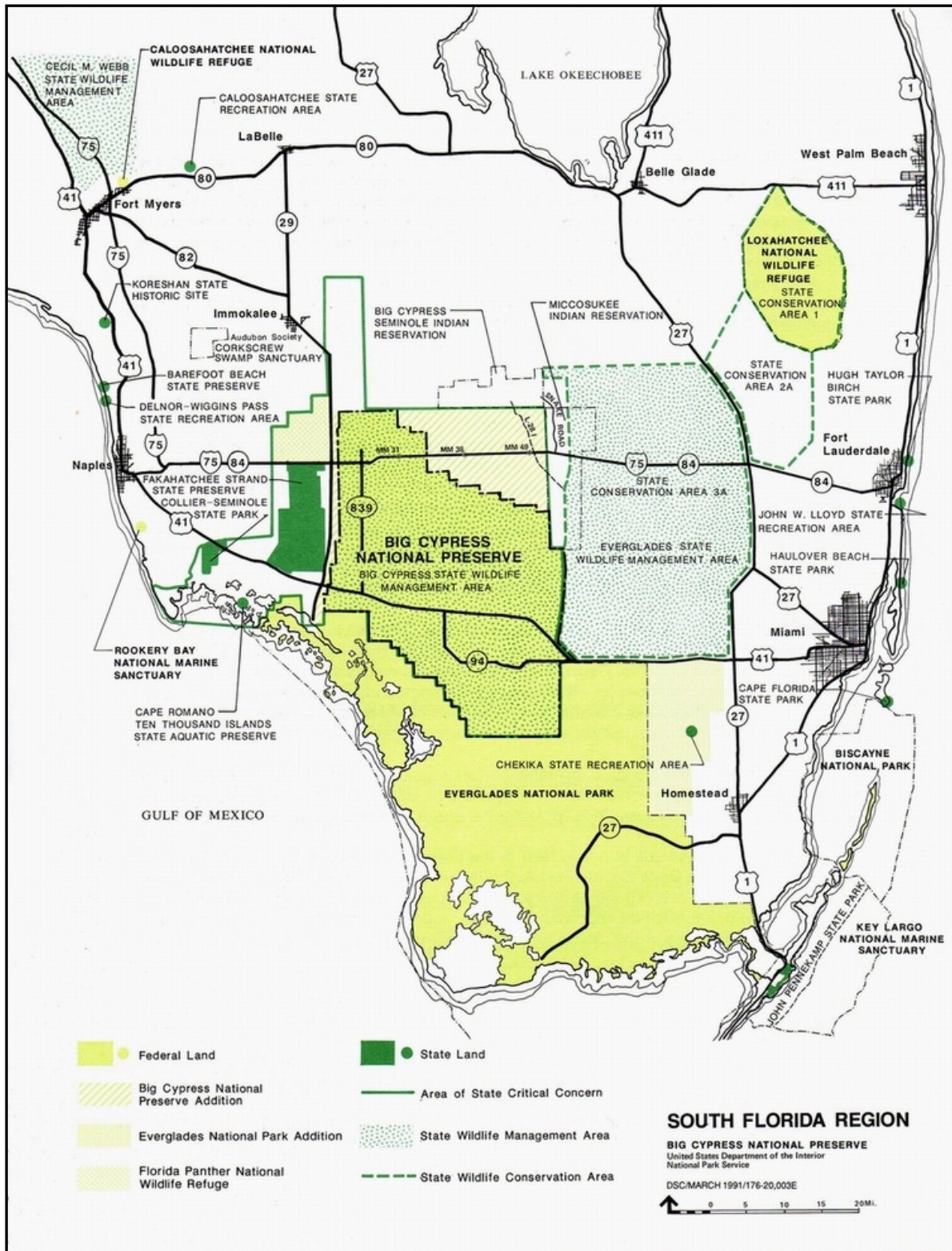
20-minute chat. At the end of the conversation, Bush indicated that he would support the park expansion bill provided that it was bipartisan.⁶⁷

There was little outright opposition to the legislation. Fiscal conservatives were concerned about the cost of land acquisition – an estimated \$32 million according to the NPS or \$70 million according to the Corps. Sportsmen’s groups wanted the area added to the national wildlife refuge system rather than the park. Dade County farmers had reservations about the modified water delivery plan, but they generally wanted a horse trade: restoration of sheet flow to the park for greater flood protection in nearby agricultural areas. The SFWMD backed the legislation with the proviso that the bill should be amended to recognize the multi-purpose nature of the C&SF Project.⁶⁸ These were the main outlines of the demands for making the legislation bipartisan and acceptable to all interests.

After extensive amendment of the bill in committee, Congress enacted it in November 1989. The purpose of the act was first, to increase protection and “to enhance and restore the ecological values, natural hydrologic conditions, and public enjoyment” by adding certain lands to the park; and second, to assure that the park was “managed in order to maintain the natural abundance, diversity, and ecological integrity of native plants and animals . . . as a part of their ecosystem.”⁶⁹ The act provided specific steps for modifications to the C&SF Project, and directed the Corps to complete a General Design Memorandum entitled “Modified Water Deliveries to Everglades National Park.” The study was to include flood protection, if warranted, for the 8.5-Square-Mile Area and the adjacent agricultural region. With regard to the C-111 basin, the General Design Memorandum was to “take all measures which are feasible and consistent with the purposes of the project to protect natural values associated with Everglades National Park.”⁷⁰

The law stated that construction of modifications to the C&SF Project were justified by environmental benefits and did not require further economic justification. Thus, the General Design Memorandum would not be subject to the Corps’ usual cost-benefits analysis. Funds for the so-called Modified Water Deliveries project would subsequently come out of Interior Department appropriations acts, since this was national park legislation.

The law defined project purposes generally, but it stopped short of declaring that the project was multi-purpose, as Wodraska had requested in his testimony. Nothing relating to the Modified Water Deliveries was to be “construed to limit the operation of project facilities to achieve their design objectives, as set forth in the Congressional authorization and any modifications thereof.” Significantly, the language in the House version of the bill asserted the interests of the park. In the bill passed by the House on 7 November, this subsection read as follows: “Nothing in this Act shall be construed to limit operation of project facilities to achieve their original design objectives . . . provided, however, that the project shall be operated to maximize the restoration of natural hydrologic conditions within Everglades National Park . . . and any modifications thereto, must receive the written concurrence of the National Park Service.”⁷¹ The Senate amended the House bill, eliminating this proviso, and the House concurred in the Senate amendment. The result of the Senate amendment was to maintain the possibility that structures such as the C-111 canal could be built for environmental purposes and then operated for other uses.⁷²



1989 Additions to Everglades National Park. (Source: National Park Service, *Big Cypress National Preserve, Florida: General Management Plan, Final Environmental Impact Statement, Volume 1, 5.*)

Enactment of the Everglades National Park Protection and Expansion Act of 1989 was a victory for the park and environmentalists. It provided a roadmap for the SFWMD, the Corps, and the NPS to work together in resolving land use and water management issues in the East Everglades where conflicts were longstanding. However, park officials and environmentalists worried that the legislation was too little too late. The law addressed the problems of quantity, timing, and distribution of water deliveries to the park, but by 1989 the focus of environmental concern was already shifting elsewhere: to the protection of water quality. The problem of excessive phosphorus entering the Everglades and altering the aquatic life was rooted not in the East Everglades but in the sugarcane fields farther north and the heavily urbanized coastal area to the northeast.

Yet the 1989 act was also a triumph for Florida politicians who believed that bipartisanship and increased federal support were the key ingredients to shaping a brighter future for South Florida. Embedded in the notion of increased federal support was the expectation of greater federal-state cooperation. But by the time the act was passed, the issue of water quality had reached the point of litigation, and the lawsuit that followed would become one of the most divisive events in the history of South Florida water management.

Chapter Eleven Endnotes

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² Abrams et al., “The East Everglades Planning Study,” 226.

³ Hansen, “South Florida’s Water Dilemma,” 18; Light and Dineen, “Water Control in the Everglades,” 68.

⁴ Statement of Nathaniel Pryor Reed in House Committee on Interior and Insular Affairs Subcommittee on National Parks and Public Lands, *Everglades National Park Protection and Expansion Act of 1989: Hearing before the House Subcommittee on National Parks and Public Lands of the Committee on Interior and Insular Affairs*, 101st Cong., 1st sess., 1989, 63; Robert Johnson interview by Theodore Catton, 16 July 2004, 5-6 [hereafter referred to as Johnson interview]; Abrams et al., “The East Everglades Planning Study,” 231-232; Dade County Planning Department, “Water Control Facilities in and Around the East Everglades Area,” 18 September 1981, File Dade County East Everglades 1958-83 Resolutions/Ordinances/General, Box 02172, SFWMDAR; Walter A. Gresh, Regional Director, to District Engineer, 9 May 1963, File CE-SE Central and Southern Florida FCP, South Dade County, FWSVBA; University of Florida School of Natural Resources and Environment, “Water Management Issues Affecting the C-111 Basin, Dade County, Florida: Hydrologic Sciences Task Force Initial Assessment Report,” 6 June 1997, available at <<http://snre.ufl.edu/publications/c111.htm>> (27 April 2006).

⁵ Dade County Planning Department, “Water Control Facilities in and Around the East Everglades Area”; A. J. Salem, Acting Chief, Planning Division to Henry Iler, Senior Planner, Metro Dade Planning Department, 1 September 1981, File 1110-2-1150a (C&SF Southwest Dade County) Project General 1965 Authority, Box 10, Accession No. 077-96-0037, RG 77, FRC; Abrams et al., “The East Everglades Planning Study,” 235.

⁶ Lieutenant Colonel Robert J. Waterston III, interview by George E. Buker, 12 April 1984, Jacksonville, Florida, 24, transcript in Library, Jacksonville District, U.S. Army Corps of Engineers, Jacksonville, Florida; Abrams et al., “The East Everglades Planning Study,” 236-237.

⁷ Quotations in “Florida’s Battle of the Swamp,” *Time* 118 (24 August 1981): 41; see also *The Miami Herald*, 25 December 1981.

⁸ East Everglades Task Force, untitled 27-page memorandum, no date, File East Everglades, Box 15746, SFWMDAR.

⁹ M. R. Stierheim, County Manager to Joan Hagan, Secretary, Florida Department of Veteran and Community Affairs, 9 November 1981, File East Everglades, Box 15746, SFWMDAR.

¹⁰ Johnson interview, 6; Abrams et al., “The East Everglades Planning Study,” 236.

¹¹ Abrams et al., “The East Everglades Planning Study,” 229-230.

¹² John M. Morehead, Superintendent, to Colonel Alfred B. Devereaux, District Engineer, 17 September 1982, File Everglades National Park 1958-88 General/Resolutions/Agreements, Box 02161, SFWMDAR.

¹³ Morehead to Devereaux, 17 September 1982.

¹⁴ Morehead to Devereaux, 17 September 1982.

¹⁵ Morehead to Devereaux, 17 September 1982.

¹⁶ John M. Morehead, Superintendent, to Colonel James W. R. Adams, District Engineer, 7 July 1980, File 1110-2-1150a (C&SF) Conservation Areas June 1980 – December 1982, Box 12, Accession 077-96-0038, RG 77, FRC.

¹⁷ Colonel James W. R. Adams, interview by George E. Buker, 18 November 1981, Jacksonville, Florida, 33, transcript in Library, Jacksonville District, U.S. Army Corps of Engineers, Jacksonville, Florida.

¹⁸ Hansen, “South Florida’s Water Dilemma,” 41.

Chapter Eleven Endnotes (continued)

- ¹⁹ South Florida Water Management District, "Order No. 83-10," File Everglades National Park Relief Plan – General/Agreement 1983-85, Box 02161, SFWMDAR.
- ²⁰ Steve Yates, "Marjory Stoneman Douglas and the Glades Crusade," *Audubon* 85 (March 1983): 122.
- ²¹ Moreau, "Everglades Forever?" 73.
- ²² Verbatim Excerpt from Workshop Meeting – Everglades National Park 7-Point Plan, 10 March 1983, no file name, Box 15747, SFWMDAR.
- ²³ Verbatim Excerpt from Workshop Meeting – Everglades National Park 7-Point Plan, 10 March 1983.
- ²⁴ Verbatim Excerpt from Workshop Meeting – Everglades National Park 7-Point Plan, 10 March 1983.
- ²⁵ Nathaniel P. Reed to Marjory Stoneman Douglas et al., 14 March 1983, Folder 29, Box 2, Marshall Papers.
- ²⁶ Reed to Douglas et al., 14 March 1983 (emphasis in original).
- ²⁷ South Florida Water Management District News Release, 29 March 1983, File Everglades National Park Relief Plan – General/Agreement 1983-1985, Box 02161, SFWMDAR.
- ²⁸ "Minutes of an Emergency Meeting of the Governing Board of the South Florida Water Management District," 5 April 1983, File Everglades National Park Relief Plan – General/Agreement 1983-1985, Box 02161, SFWMDAR.
- ²⁹ "Minutes of an Emergency Meeting of the Governing Board of the South Florida Water Management District," 5 April 1983.
- ³⁰ "Minutes of an Emergency Meeting of the Governing Board of the South Florida Water Management District," 5 April 1983.
- ³¹ William L. Earl to Colonel Alfred B. Devereaux, District Engineer, 5 April 1983, File Everglades National Park Relief Plan – General/Agreement 1983-1985, Box 02161, SFWMDAR.
- ³² "Lawmaker: Everglades Faces Crisis," *The Palm Beach Post*, 1 May 1983.
- ³³ Devereaux interview, 44.
- ³⁴ As reported in "Lawmaker: Everglades Faces Crisis," *The Palm Beach Post*, 1 May 1983; see also Nathaniel P. Reed to Rick Davidge, Assistant Secretary of the Interior for Fish, Wildlife & Parks, 2 May 1983, Folder 25, Box 2, Marshall Papers.
- ³⁵ Devereaux interview, 45.
- ³⁶ Public Law 84-99, Emergency Flood Control Work.
- ³⁷ Reed to Davidge, 2 May 1983.
- ³⁸ Abrams et al., "The East Everglades Planning Study," 234-235; "WMD Director: Corps Blocking Everglades Plan," *The Palm Beach Post*, 14 October 1983.
- ³⁹ John R. Maloy, Executive Director to Mayor and Board of County Commissioners, 16 June 1983, and Maloy to Dr. John M. DeGrove, Secretary, Department of Community Affairs, 22 June 1983, File Dade County East Everglades 1958-83 Resolutions/Ordinances/General, Box 02172, SFWMDAR.
- ⁴⁰ Abrams et al., "The East Everglades Planning Study," 238-239.
- ⁴¹ Quotation in *Dade County Farm Bureau v. John O. Marsh, Jr., et al.*, Case No. 83-1210, Emergency Motion for Temporary Restraining Order and Other Emergency Relief, 3-4, copy provided by James Vearil, Senior Project Manager, RECOVER Branch, Programs and Project Management Division, U.S. Army Corps of Engineers, Jacksonville District, Jacksonville, Florida; see also "Cite East Everglades as Area of Concern, Agency Asks Graham," *Fort Lauderdale Sun-Sentinel*, 11 June 1983.

Chapter Eleven Endnotes (continued)

⁴² “WMD Wants State to Run East Everglades,” *The Palm Beach Post*, 11 June 1983; “Cite East Everglades as Area of Concern, Agency Asks Graham,” *Fort Lauderdale Sun-Sentinel*, 11 June 1983; “Farmers’ Suits May Delay Plan,” *The Evening Times*, 14 October 1983.

⁴³ Devereaux interview, 40.

⁴⁴ Devereaux interview, 40-41; “Plan of Action Approved by SFWMD Governing Board on April 5, 1983 Designed to Improve Water Deliveries to Everglades National Park,” File Dade County East Everglades 1958-83 Resolutions/Ordinances/General, Box 02172, SFWMDAR.

⁴⁵ John M. Morehead, Superintendent to Jack R. Maloy, Director, July 12, 1983, File East Everglades, Box 15746, SFWMDAR. See also Devereaux interview, 42-43.

⁴⁶ Devereaux interview, 43-45; “Plan of Action Approved by SFWMD Governing Board on April 5, 1983 Designed to Improve Water Deliveries to Everglades National Park,” File Dade County East Everglades 1958-83 Resolutions/Ordinances/General, Box 02172, SFWMDAR; “WMD Director: Corps Blocking Everglades Plan,” *The Palm Beach Post*, 14 October 1983. Ironically, in later years, the Corps operated S-333 instead of the SFWMD because of district fears about flooding and possible legal action.

⁴⁷ Victoria J. Tschinkel to Stanley W. Hole, 29 November 1983, File Everglades National Park Relief Plan – General/Agreement 1983-85, Box 02161, SFWMDAR.

⁴⁸ Act of 30 November 1983 (97 Stat. 1153).

⁴⁹ U.S. Army Corps of Engineers, “General Plan for Implementation of an Improved Water Delivery System to Everglades National Park,” January 1985, copy in South Florida Water Management District Reference Center, West Palm Beach, Florida.

⁵⁰ Abrams et al., “The East Everglades Planning Study,” 238. The arrangement was continued in 1985 and 1986. See “Frog Pond Summary,” 26 May 1987, File Everglades National Park NESRS Frog Pond, Box 15746, SFWMDAR.

⁵¹ Abrams et al., “The East Everglades Planning Study,” 240-241; Devereaux interview, 34.

⁵² Quotations in Everglades National Park/East Everglades Resource Planning and Management Committee, “Everglades National Park/East Everglades Resource Planning and Management Implementation Plan,” 18 April 1985, File East Everglades, Box 15746, SFWMDAR, 7-14; see also Abrams et al., “The East Everglades Planning Study,” 245-247.

⁵³ Everglades National Park/East Everglades Resource Planning and Management Committee, “Everglades National Park/East Everglades Resource Planning and Management Implementation Plan,” 25-27, 53-63.

⁵⁴ SFWMD, “District Proposal will Help Restore Natural Water Flow to Park,” 11 December 1985, File Pro Everglades SOE, Box 21213; “Agreement,” 1 October 1987, File Everglades National Park NESRS Frog Pond, Box 15746, SFWMDAR. The field tests were reauthorized by Congress in December 1985 to continue through 1 January 1989.

⁵⁵ Memorandum of Agreement among the Army Corps of Engineers, the South Florida Water Management District, and the National Park Service for the Purpose of Protecting the Quality of Water Entering Everglades National Park,” 8 February 1984, File Everglades National Park, Box 15754, SFWMDAR.

⁵⁶ Finley interview, 1.

⁵⁷ T. MacVicar, Deputy Director to J. R. Wodraska, Executive Director, 25 November 1985, and Alice Wainwright, Coordinator, Southeast Florida Chapters, National Audubon Society to Colonel Charles Myers, District Engineer, 21 March 1986, File Everglades National Park Relief Plan – General Agreement 1983-85, Box 02161, SFWMDAR.

⁵⁸ Michael Finley interview by Matthew Godfrey, 20 October 2004, 2 [hereafter referred to as Finley interview].

Chapter Eleven Endnotes (continued)

⁵⁹ “Frog Pond Summary,” 26 May 1987, and D.W. Edwards, GenCorp Realty Company to John Wodraska, South Florida Water Management District, 21 May 1987, File Everglades National Park NESRS Frog Pond, Box 15746, SFWMDAR.

⁶⁰ Finley interview, 2; Herndon interview, 30-31; Light and Dineen, “Water Control in the Everglades: A Historical Perspective,” 70; Abrams et al., “The East Everglades Planning Study,” 236.

⁶¹ Finley interview, 2-3.

⁶² Dave Johnson, Office of the Governor, to Mac Stipanovich, 25 November 1986, File Pro Everglades SOE, Box 21213, SFWMDAR.

⁶³ Johnson to Stipanovich, 25 November 1986.

⁶⁴ “Governor Issues Everglades Statement,” 17 November 1987, File Pro Everglades SOE, Box 21213, SFWMDAR.

⁶⁵ East Everglades Land Acquisition Task Force, “A Report to Governor Bob Martinez,” 1 October 1988, ii, File Everglades, Box 88-02, S1331, Executive Office of the Governor, Brian Ballard, Director of Operations, Subject Files 1988, FSA.

⁶⁶ East Everglades Land Acquisition Task Force, “A Report to Governor Bob Martinez,” 1 October 1988, iii-vii.

⁶⁷ Finley interview, 6.

⁶⁸ Senate Committee on Energy and Natural Resources Subcommittee on Public Lands, National Parks and Forests, *Everglades National Park Protection and Expansion Act of 1989: Hearing before the Subcommittee on Public Lands, National Parks and Forests of the Committee on Energy and Natural Resources*, 101st Cong., 1st sess., 1989, 3-7, 79; House Subcommittee on National Parks and Public Lands, *Everglades National Park Protection and Expansion Act of 1989*, 59, 117.

⁶⁹ Everglades National Park Protection and Expansion Act of 1989 (103 Stat. 1946).

⁷⁰ Everglades National Park Protection and Expansion Act of 1989 (103 Stat. 1946, 1949).

⁷¹ Everglades National Park Protection and Expansion Act of 1989 (103 Stat. 1946, 1949).

⁷² “Everglades National Park Protection and Expansion Act,” no date, File Everglades National Park, Box 15754, SFWMDAR.

