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EVERGLADES NATIONAL PARK

HEARINGS
BEFORE THE
COMMITTEE ON
INTERIOR AND INSULAR AFFAIRS
UNITED STATES SENATE
NINETY-FIRST CONGRESS
FIRST SESSION
ON THE
WATER SUPPLY, THE ENVIRONMENTAL,
AND JET AIRPORT PROBLEMS OF
EVERGLADES NATIONAL PARK

JUNE 3 AND 11, 1969



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EVERGLADES NATIONAL PARK

TUESDAY, JUNE 3, 1969

U.S. SENATE,
COMMITTEE ON INTERIOR AND INSULAR AFFAIRS,
Washington, D.C.

The committee met, pursuant to call, at 10:25 a.m. in room 3110, New Senate Office Building, Senator Henry M. Jackson (chairman of the committee) presiding.

Present: Senators Henry M. Jackson (Washington) and Gaylord Nelson (Wisconsin).

Also present: Jerry T. Verkler, staff director; William Van Ness, special counsel; Charles Cook, minority counsel; Daniel Dreyfus and Denny Miller, professional staff members.

The CHAIRMAN. The committee will come to order.

The purpose of this morning's hearing is to receive testimony from Federal and State officials on the water supply, the environmental, and the jet airport problems currently being experienced at the Everglades National Park.

As I see it, the committee's interest in this matter is twofold: First, to receive an up-to-date status report on the alternatives, the planning and the negotiations which are now underway, and second, to review the process of Federal involvement and Federal decisionmaking which has contributed to the conflicting patterns of land and water use which now threaten the continued life of the park.

Finding a satisfactory resolution to the problems faced by the Everglades National Park is important because the many unique recreational, scenic, wildlife, and scientific values found in the park are not found anywhere else on earth. We cannot allow these values to be destroyed. Congress decided to protect them in 1934, when the park was authorized, and we must see that they are preserved for the enjoyment of present and future generations.

The Everglades National Park and the problems we will be discussing today are of importance for still another reason. They provide a classic case history of what is happening all across the Nation under the pressures of population expansion, and the development and applications of new technology. If we cannot learn to deal with the problems presented here today, there is little hope that we will be able to deal with them in the future. I am hopeful that the representatives of the administration and the State of Florida who are here today will be able to present us with some alternatives to the patterns of conflict which are emerging.

The Chair would suggest that the first three witnesses, Under Secretary Russell Train, Assistant Secretary James D. Braman and Gen. William F. Cassidy, Chief of the Corps of Engineers, all come up to

the table together, if that is agreeable, and the Chair will call first, Mr. Train, and then we will hear from Mr. Braman and then from General Cassidy. Then we will have the questions. In that way we can prepare a more orderly hearing record.

Secretary Train, we are delighted to welcome you once again to the committee.

STATEMENT OF RUSSELL E. TRAIN, UNDER SECRETARY, DEPARTMENT OF THE INTERIOR

Secretary TRAIN. Mr. Chairman and members of the committee, I am very glad to have this opportunity to testify in these public hearings about the problems facing the Everglades National Park. The Department of the Interior welcomes this opportunity for public discussion of these problems.

The future of the Everglades, and in particular Everglades National Park, is in grave danger. The steps we take, or fail to take, in the near future, will probably determine whether this unique park is preserved or ultimately despoiled.

The implications of the Everglades problem go far beyond merely local considerations. The issue of the Everglades is symptomatic of what is happening throughout this country and indeed throughout the world. The pressures of growing, mobile, and demanding populations on our diminishing natural resources can, if continued unplanned, end forever what is now left of our natural landscape.

The loss of these values is not measurable in money—for these values go to the very quality of life we seek for ourselves and future generations of Americans. In this last third of the 20th century, the way we treat our environment will determine in large part the kind of world our descendants will inherit.

We can no longer treat the subject of conservation as a repair shop where we attempt to patch together manmade changes in the environment after the damage is done. Our capability to inflict irreparable harm and the limited resiliency of what is left of our natural habitat militate against this sort of patchwork surgery.

Even in the short time I have served in the Department of the Interior, I have seen ample evidence of the inadequate Government machinery for discerning in advance the environmental consequence of development decisions. All too often, individual departments make far-reaching decisions which affect other governmental agencies, but adequate machinery for consultation and adjustment have been lacking.

As our discussions of the south Florida problems will demonstrate, the physical-biological world is intricately interconnected. If ecology teaches us one thing, it is that no part of the environment is so isolated that it can be altered without side effects. To foresee such side effects should be a major responsibility of Government.

In commenting aside from my prepared statement, Mr. Chairman, on the inadequacies of the arrangements within the executive branch of the Federal Government, I think it is fair to note that these same problems and inadequacies extend to other branches of the Federal Government, to the State governments, and the local governments.

So this is a problem which we are all subject to, and to which we must all address ourselves.

I visualize three distinct and necessary aspects of this responsibility—forecasting, evaluation, and deciding. Forecasting means being equipped with facts and knowledge so that the results of alternative actions may be anticipated. Evaluating means bringing together of the facts in such terms and in concise enough form that decisions can be effectively made.

Recognizing these needs, the President has already taken action on the third of these needs. His establishment of a Cabinet-level Environmental Quality Council provides the machinery for decisionmaking at the highest level of matters, frequently controversial, in which various aspects of environmental quality are in confrontation with plans for development.

That the President will chair the Council gives evidence of his concern in this field, and his commitment to the need.

In the Department of the Interior, we are determined to develop and organize the staff competence necessary to carrying out effectively the major responsibilities of the Department for the maintenance and enhancement of environmental quality. We see the challenge of the Everglades as presenting the Department with a major opportunity in this regard.

Everglades National Park has the dubious distinction of having the most serious preservation problems facing the National Park Service today, attracting the concern of informed citizens and ecologists throughout the world.

In September 1968, the Dade County Port Authority began construction on what the port authority announced to be the jetport of the future, a huge 39-square mile complex lying a few miles north of Everglades National Park in the Big Cypress Swamp, whose waters drain through and thereby sustain the western third of the park.

The first runway of this gigantic jetport, whose area is large enough to contain four of the largest airports in the United States with room to spare, is expected to be operational this September as a training facility, but ultimately as a gigantic commercial jetport handling jets, jumbo jets, and SST's at takeoff and landing intervals of one every 30 seconds.

Preliminary plans call for a thousand-foot wide, high speed ground transportation corridor cutting across the Everglades connecting Miami to the jetport.

Insofar as I am aware, no environmental studies preceded selection of this particular site. Nevertheless, construction now proceeds around the clock.

Dr. Luna Leopold, senior scientist with the Geological Survey, has been designated as the director of the Department of the Interior's scientific study team to evaluate the proposal. Dr. Leopold is a noted hydrologist and ecologist, and ably qualified to lead this effort.

Dr. Leopold's team will utilize existing data and initiate additional field research, as they deem necessary, in order to make a reasonable projection of the probable impact of the jetport as proposed by the Dade County Port Authority, both as a training and commercial facility, on the ecology of Everglades National Park.

The impact of the project on the lives of the Miccosukee Indians in the area must also receive careful consideration and, of course, their rights are an important part of the responsibilities of the Department of the Interior.

The Miccosukee Indians are a small tribe living along a 5-mile strip of the north boundary of the Everglades National Park. They have no trust lands of their own and merely have a permit by the Park Service to occupy these lands.

They have traditionally used the conservation areas in the flood control district and the Big Cypress Swamp where the jetport is being built for hunting and fishing, as well as certain religious practices. The tribe is greatly concerned about the disruption of their way of life from a large commercial jetport.

Specifically, also, Dr. Leopold's group will look into the effects on water supply, water quality and velocity, vegetation, fish, wildlife, and wilderness values, and the Miccosukee Indians as affected by—

1. The nature and amount of pollution from aircraft, automobiles, and high-speed ground transportation, industrial and residential development.
2. The use of pesticides, fertilizers, and herbicides on surrounding development.
3. The water and sewage necessary to facilitate residential, commercial, and industrial growth around the jetport.
4. The pattern and frequency of flights and high-speed ground transportation and the attendant noise levels.
5. The reasonable practicability of controlling adverse impacts through the use of planning and zoning and examples of such successful application in other areas.
6. Population growth.
7. Residential, industrial, and commercial growth.
8. Extent of acreage required to be drained to accomodate such growth.

Now, this list is not intended to be necessarily exclusive, but these are some of the main points that will be looked at.

Various scientists and other professionals with the National Park Service, Geological Survey, Bureau of Sport Fisheries and Wildlife, as well as the Institute of Marine Sciences of the University of Miami, located in and around the Everglades, have been doing various hydrobiological and ecological studies for years on the park, consequently, much of the raw data may already be available for interpretation.

Some of those gentlemen are here with me today and are available to answer specific questions by the committee.

The facts developed by this short-range study could possibly indicate the need for relocating the airport; consequently these and further studies must also consider alternative sites.

To facilitate coordination between the Department of the Interior and the Department of Transportation in these and other studies related to the Everglades jetport problem, Secretary Hickel and Secretary Volpe yesterday announced formation of a joint committee between our two Departments.

The committee will consist of the following from Interior: Under Secretary of the Interior (myself); Boyd Gibbons, Deputy Under Secretary; and Dr. Luna Leopold, Geological Survey.

The following officials will serve from the Department of Transportation: James D. Braman, Assistant Secretary of Urban Systems and Environment (a correction in the printed statement); Michael J. Cassidy, Deputy Assistant Secretary; and Oscar S. Gray, Acting Director, Office of Environmental Impact.

To assist the members of this committee in better understanding why the Department of the Interior is so concerned about the environmental consequences of this proposed jetport, I would like to describe in a brief way the history and unique characteristics of this region which gives the park its delicate balance of life.

The Everglades National Park consists of 1.4 million acres of a unique and complicated ecosystem, lying at the southernmost tip of Florida. It was authorized by the Congress in 1934 to preserve forever a semitropical aquatic wilderness, containing within its boundaries hundreds of species of plants, fish, animals, and birds. Twenty-two species of fish and wildlife are on the rare and endangered list.

As I mentioned earlier, the Everglades is essentially an aquatic park—not a standing body of water, but a slow, flat sheet of water that gradually moves down from Lake Okeechobee across the sawgrass of the landward portion of the park and the Big Cypress Swamp, through the mangrove swamps of the estuaries and into the sea.

The drop in elevation from Lake Okeechobee to the sea, a distance of some 100 miles, is only 15 feet. Consequently, the water drops less than two inches per mile, traveling an almost imperceptible rate of 1,000 to 1,500 feet per day. In the days before the Corps of Engineers Central and Southern Flood Control project, the water flowed freely into the park; that portion from the Big Cypress Swamp still does.

The supply in the Everglades had already been somewhat diminished by upland canal diversions. But the large remaining uncontrolled tributary area was not shut off until the construction of a levee in late 1962, squarely across the drainageway blocking all supply into the Shark River Slough, the principal wetland region of the park.

In 1948, the Department of the Interior warned that the massive flood control project then in its planning stages would affect the park adversely. To allay these fears the Corps of Engineers gave assurances in its report to the Congress that the project would not only benefit the park but would also assist in restoring and maintaining natural conditions.

However, natural conditions have continued to deteriorate and disagreements between the Park Service and the corps have continued since 1948, reaching a new level shortly before construction of the levee in 1962 just north of the park.

Shortages were being felt in 1961 and the Park Service sought assurances for an adequate water supply from the Corps of Engineers because the new levee would block the normal overland flow. Despite these requests, the levee was constructed without assurances, even though one of the stated purposes of Conservation Area 3, just above the levee, was to store water for release into Everglades National Park.

Historically, water had continued to flow into the park months after the seasonal rainfall ended, but now, the rainfall and the flow ended together. For the 2 years following 1962 no water was released to the park and in 4 of the 5 years following, lowered water tables in the park caused dramatic changes in the plant communities. Marsh plants

were replaced by trees and shrubs over considerable acreage in the park and the trend apparently is continuing.

Despite repeated requests by Interior for water, the corps claimed it had no responsibility for delivery of water from the project except for flood control purposes. During this same period, water was dumped into the sea and the plight of the drought-stricken park aroused the public.

In 1965, the flood control district tried a schedule of releases, which proved ineffective. In 1966, the corps developed and put into effect an interim schedule based on levels in Lake Okeechobee. The schedule is arbitrary and does not simulate a natural cycle period. However, both Secretary of the Army Resor and I have begun discussions which may hopefully lead to a satisfactory agreement.

This man-made control of the park water supply has likewise affected the wildlife. Reproduction of the birds that feed in the fresh water marshes is timed to the hydrologic cycle. The wood stork, for example, which has long established breeding colonies in the lower reaches of the park, breeds in the dry season when the fish produced during the preceding wet season are concentrated in the great densities needed for the stork for feeding.

The wood stork population in the park area, which comprises about three-fourths of the total U.S. population, numbered at least 30,000 in the mid-1930's; it now numbers less than 3,000. In the last 8 years wood storks in the park have had only one successful nesting.

Ponds created by the alligator serve as vital sanctuaries for most of the park's aquatic animals and fish during the dry cycle. But the poachers and reduced water supply have combined to make the alligator an endangered species. Consequently, the number of ponds has decreased as have populations of all species that depend on alligator holes for survival during the dry season.

The supply of fresh water also has affected the populations of fin and shellfish in the Everglades National Park estuaries, which require the reduced salinity of the estuaries at early stages of their development. Shrimp migrating from the Tortugas shrimp fishing grounds enter the Everglades estuaries not much larger than a quarter of an inch.

During the next 6 months of their life they thrive on the rich foods of the estuary, grow to maturity and return to the Tortugas grounds where they support a lucrative commercial fishery. An inadequate supply of fresh water leaves the estuaries too saline. Under these conditions fewer shrimp survive, therefore diminishing the food supply for the numerous fish in the estuaries.

Those shrimp that do survive leave the estuaries at smaller sizes, thus directly influencing commercial catches. Dr. Durbin Tabb, of the Institute of Marine Science, University of Miami, is a noted authority on the Everglades estuaries and can expand on this point, should the committee desire. He is present in the room.

The heavy use of pesticides by farmers in large agricultural acreage to the north and east is likewise a threat to the park ecology. Persistent

pesticides, such as DDT and toxaphene, have found their way into the Everglades' environment. The threat to higher life forms, including such endangered species as the bald eagle and the Everglades kite, becomes critical because of the process of biological amplification. That is, pesticides in water and organic sediments reach greater concentration in the microscopic aquatic organisms which feed on the sediment, and still greater concentrations in small fish which feed on aquatic micro-organisms, in large fish which feed on the smaller fish, and finally in the birds which ultimately consume the mature fish.

Dr. Milton Kolipinski, of the Geological Survey, who has been conducting these and other studies in the Everglades, is available here and can expand on this.

Although I have only sketched a few examples of environmental problems related to the park, it should be apparent why the Everglades is in such danger, even without construction of a mammoth jetport near its boundaries, and, because the entire ecology of the park is so intricately linked to the timing, supply, and quality of this overland flow of fresh water from the north, why unplanned developments which affect this supply can have a dramatic and permanent effect on the park's future.

We must find out now whether the jetport, both as a training facility and as a future commercial jetport, can be compatible with the park. If our studies show that it cannot, alternative sites must be immediately studied. If it can, we must see to it that all aspects of the jetport and its environs are designed so as to prevent damage to the park.

Finally, we must begin now in concert with the appropriate local and State of Florida agencies, to discuss establishment of rational and enforceable guidelines for future land development in what is the last natural source of the park's water supply, the Big Cypress Swamp.

Such guidelines can and must become the example for rational land use planning for the rest of our Nation. To date, we have only been able to react to existing changes that have been made in our environment and do what we can to minimize the damage. But all too often the damage we do to our land, water, and wildlife is complete and irreversible, and the only action we can then take is to monitor the corpse.

The Everglades is our opportunity to come to grips with environmental problems before they pass the point of solution. The Department of the Interior is determined to meet its responsibilities in protecting the Everglades National Park and, in so doing, to develop more effective ways of maintaining the quality of our environment generally. The American people expect and deserve no less.

Thank you, Mr. Chairman.

The CHAIRMAN. Thank you, Secretary Train.

Secretary Braman, you have a prepared statement, I believe. You may proceed at this time.

STATEMENT OF JAMES D. BRAMAN, ASSISTANT SECRETARY FOR URBAN SYSTEMS AND ENVIRONMENT, DEPARTMENT OF TRANSPORTATION; ACCOMPANIED BY CHESTER BOWERS, DIRECTOR OF THE AIRPORTS SERVICE OF THE FEDERAL AVIATION ADMINISTRATION; AND OSCAR S. GRAY, DIRECTOR OF THE OFFICE OF ENVIRONMENTAL IMPACT OF THE DEPARTMENT OF TRANSPORTATION

Secretary BRAMAN. Thank you.

Before I get to the statement, I think a word on my position in the Department of Transportation may be in order.

With the advent of Secretary Volpe, for the first time an office headed by an Assistant Secretary has been created in the Department of Transportation to consider the impact of transportation systems on the environment.

When I consented to join the Department of Transportation as Assistant Secretary for Urban Systems and Environment, I did so partly because of a firm conviction that our national transportation programs must be increasingly guided toward minimizing undesirable environmental consequences.

As the longtime mayor of one of our greatest and most beautifully endowed cities in the Nation, I am well aware of the strong motivations which favor proceeding with public work improvements. At the same time, I am aware of, and sympathetic to, the views which oppose such improvements when they needlessly impact upon our environmental values in an adverse fashion.

The office I occupy was established by Secretary Volpe because of his own concern about these same impacts.

Among the many controversial projects inherited by the Secretary was the Miami jetport. Because of its location near one of our most unique national assets, the Everglades National Park, it presents both a public challenge as well as an opportunity for the Department to come to grips with all the environmental-type problems that transportation will face nationwide in the years to come.

The opportunities and challenges must be shared in this case by both the Department of Transportation and the Department of the Interior. In this project, and potential related land use development, we have every potential environmental conflict that anyone can imagine.

If not coped with, these developments threaten adverse consequences to a unique national park, with countless species of plantlife and wildlife, requiring water quality preservation, and just about every other type of environmental value that exists within our Nation.

My point is that these developments present, in one package, the opportunity to explore both the consequences and the possible cures for almost every type of ecological conflict that development of an airport, or a highway, or a mass transit system, can encounter.

I do not believe that every conflict present in the Everglades can be resolved in a manner to totally satisfy all points of view. I firmly believe, however, that such conflicts must be minutely examined, and their corrective solutions identified wherever possible.

The Everglades is but one location where transportation programs are on a collision course with environmental values. Others are emerging across our Nation, and we must learn how to cope with them. The Everglades presents an opportunity in that direction.

In a sense, our jetport problem in lower Florida is quite ironic. For several years aviation has increasingly imposed upon the peace and tranquility of our citizens. The widely recognized solution has been to locate airports farther distant from populated areas, in great open expanses of undeveloped land.

In almost any other area of our Nation, I believe we would be applauding the Dade County Port Authority for locating its airport in accordance with those recommendations.

The Department has supported the development of a limited airport in lower Florida, and that facility is under construction. Its sole initial purpose is to accommodate the pilot proficiency training which is now taxing Miami International, some 36 miles away.

When the training airport's first runway is completed, about September 1, it will divert approximately 150,000 annual aircraft operations away from Miami International and extend the useful capacity of that airport until about 1980. If such diversion does not occur, we forecast that Miami International will become dangerously saturated at least 5 years earlier.

Miami is, I am sure gentlemen are aware, a somewhat unique terminal point within our national air transportation system. Its location dictates overnighing of both crews and aircraft which, in turn, economically encourages several air carriers to concentrate their pilot proficiency training at that location as nighttime operations.

This fact has further induced several carriers to establish extensive aircraft maintenance facilities at Miami, and, of course, the city is appreciative of the resulting economic benefits and understandably eager to accommodate the carriers' operational needs.

My point is that I believe that the training jetport, which is being constructed on privately owned land, would exist today even if Federal aid had not been made available.

The need for a supplemental training facility was first recognized in late 1966. In the interim until June 1968—the date when Dade County and Collier County united in agreement upon the present site—several alternative sites were considered. They included Freeport, Grand Bahamas; St. Petersburg, Daytona Beach, West Palm Beach, Boca Raton, Immokalee, all in Florida; and at the insistence of FAA, Hunter AFB, Savannah, Ga.; Turner AFB, Albany, Ga.; and former military auxiliary fields at Clewiston and Brooksville, Fla.

After due consideration, the Department concurred with local authorities that only the present general area and Homestead AFB were worthy of continuing consideration. Ultimately, Homestead was ruled to be unsuitable due to noise exposure upon residential areas when the pertinent factor of nighttime operations was considered.

In addition to the present site, four other alternatives were considered within its general vicinity. The first was located within Water Conservation Area No. 3 and was abandoned at the request of the Central and South Florida Flood Control District. A second straddled the Dade-Monroe County line—south and west of the first site.

This was highly satisfactory from a flight viewpoint, but was abandoned due to objections raised by the National Park Service.

The third was located entirely within Monroe County and was further removed from the Everglades National Park. It was abandoned because of the inability of the two counties to resolve jurisdictional problems. In other words, Monroe County would not permit Dade County to construct it in their jurisdiction.

The fourth site considered is the airport's present location. A fifth was under consideration entirely within Dade County, but it again encroached upon Water Conservation Area No. 3. It was abandoned when Collier and Dade Counties reached agreement upon site No. 4.

Mr. Chairman, I have gone into the details of past site selections for a specific purpose. If a satisfactory training airport is to exist in the lower Florida area, we believe it must exist in its present location.

I think it pertinent at this point to observe that while there are undoubtedly conflicting opinions on this, I have found no strong feeling—within either the Department of Interior or within the multitude of conservation and environmental groups concerned over jetports development—which does not acknowledge that a pure training facility can be developed and controlled in a manner which is compatible with its surrounding environment.

In other words, as a limited facility, the jetport can be engineered to result in only a minimum and tolerable impact upon the area's environment. This brings me to the burning future question.

I earlier indicated that the supplemental training airport will extend the useful life of Miami International until about 1980. Beyond that time, there is little question that an additional major airport will be needed to serve the Greater Miami area.

The current question is whether or not the present training airport site will be suitable for expansion to a full-blown major facility. As a major facility, we know it would draw population to areas adjacent to and northwest of the airport property. We know it would require the development of an adequate ground access corridor—probably along the present Tamiami Trail. At long range, it may require some form of rapid-transit connection to Miami proper.

These conditions present entirely new potential impacts upon the Everglades environment. However, we do not know either the degree of their impact nor the possible actions which can be taken to minimize their effect. You will note that in Secretary Train's testimony, he told of the formation of a task force jointly set up between the two departments to try to find some of the answers that I enumerated here.

Fortunately, time is on our side. To be available for use in 1980, expansion of the airport beyond a training character must commence about 5 years earlier. Accordingly, we have until about 1975 to determine whether or not such additional development is proper at the present site.

I have recently discussed this entire matter with Under Secretary Train, of the Department of the Interior, and we are in full agreement that we lack—and need—a great deal of factual information before we can intelligently decide upon the airport's future.

We also agree that positive and strong roles must be jointly played by both Departments to ensure that all of the consequences are evaluated and that their corrective actions are promptly identified. To this end, we are nearing formation of a high level joint task force to define the needed leadership role of the Federal Government, and to identify the studies, resources, and multiple involvements with local and State governments which are needed for a totally satisfactory action program.

We believe this action will readily produce the information we need, within the available time period.

Mr. Chairman, there are obviously many facets of this problem which I have not touched upon. I have chosen in this brief statement to put before you those facts which I hope you will agree are essential to your full understanding of the public issues involved.

I assure you that the Department of Transportation is fully aware of those issues. We are equally aware of the awesome public responsibility placed upon Secretary Volpe by section 4(f) of the Department of Transportation Act to decide such matters. In this case, and in every like case to arise elsewhere in our Nation, we will be guided by the full intent and spirit of that responsibility.

Thank you, Mr. Chairman; this concludes my prepared remarks. I am afraid my knowledge of this problem, after less than a month in office, may not be as detailed as my statement might indicate. However, I shall be pleased to attempt to answer any questions you may have.

I might say that I have with me Mr. Bowers of FAA, and Mr. Gray of my office, who will be available for detailed questions.

The CHAIRMAN. Thank you.

General Cassidy, we are delighted to have you with us this morning. You may proceed with your statement.

STATEMENT OF LT. GEN. WILLIAM F. CASSIDY, CHIEF OF ENGINEERS, DEPARTMENT OF THE ARMY; ACCOMPANIED BY COL. FERD E. ANDERSON AND COL. RICHARD L. SEIDEL, FROM THE DIRECTORATE OF CIVIL WORKS, OFFICE OF THE CHIEF OF ENGINEERS, DEPARTMENT OF THE ARMY; AND JOE J. KOPERSKI, FROM THE CORPS DISTRICT ENGINEER OFFICE, JACKSONVILLE, FLA.

General Cassidy. Mr. Chairman and members of the committee, I am pleased to appear before you today and inform you on Corps of Engineers activities in central and southern Florida and their relationship to the Everglades National Park.

Accompanying me are Col. Ferd E. Anderson and Col. Richard L. Seidel from the directorate of civil works in my office, and Mr. Joe J. Koperski from the Corps District Engineer Office in Jacksonville, Fla.

The central and southern Florida project—commonly referred to as the C & SF project—is a comprehensive plan of improvement for flood control, drainage, water management, including water supply to the Everglades National Park and other purposes.

The project originated with a 1910 authorization for work in the Caloosahatchee River and Lake Okeechobee drainage areas. As a result

of the death and destruction caused by the 1926 and 1928 hurricanes, a major modification was authorized in 1930. This modification provided substantial levees along the south shores of the lake, and a navigation channel across south Florida from Fort Myers to Stuart via Lake Okeechobee. This work was completed in 1937.

This earlier Federal project was substantially modified by the Flood Control Act of 1948, as recommended in House Document 643, 80th Congress, following the major floods of 1947, and amended by the Flood Control Acts of 1954, 1958, 1960, 1962, 1965 and 1968.

The project covers an area of approximately 15,200 square miles in 18 counties in central and southern Florida from Orlando to the southern part of Dade County. The project authorized in 1948 has been under construction since 1949, and was about 48 percent complete as of 31 December 1968.

As of 1966 it was estimated that approximately 40 percent of the total Florida population lived within the project boundaries with the great majority concentrated in the lower east coast area.

Major features in the project include:

Lake Okeechobee.—A large, natural, shallow, fresh water lake which is the main source of water supply and a major factor in flood control. The lake has an area of about 740 square miles and receives most of the drainage of the Kissimmee River Basin. Its tributary drainage area is about 5,000 square miles.

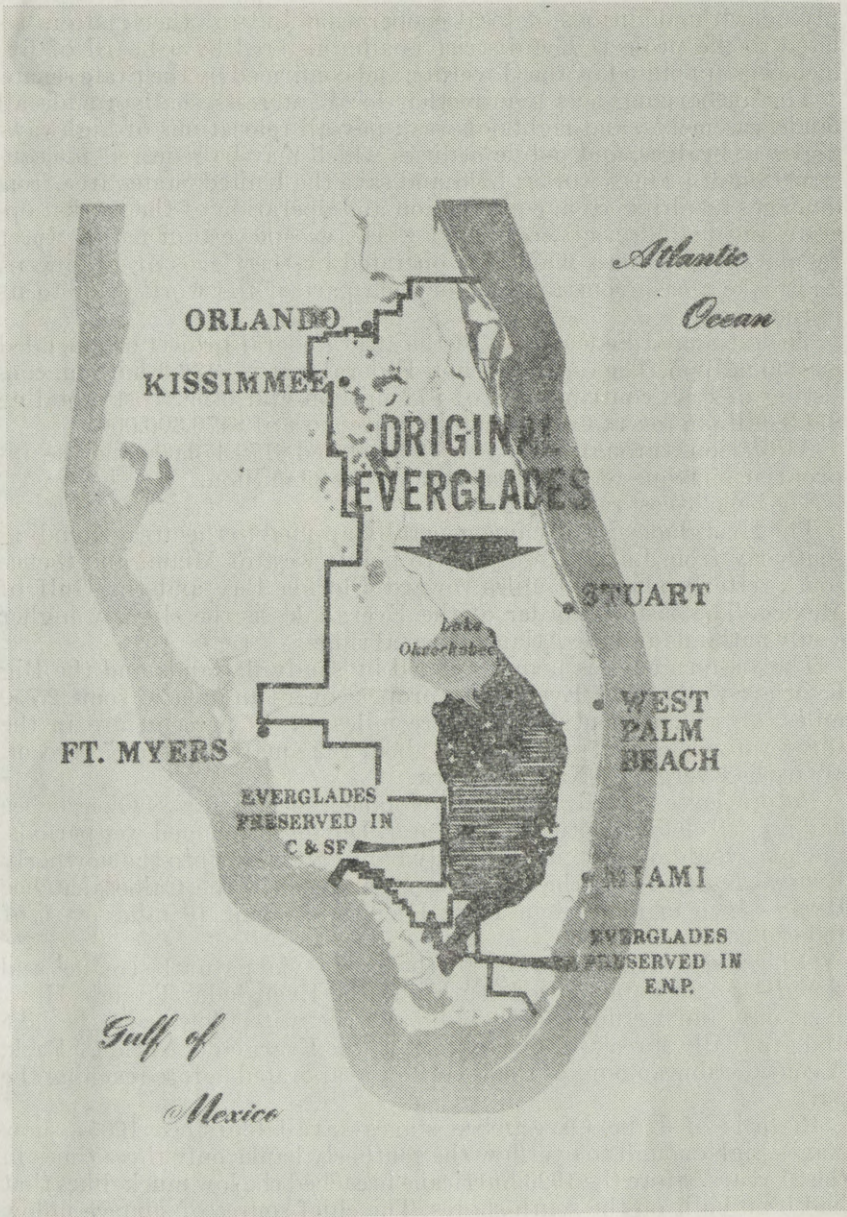
The principal means to control the lake level are: (1) transfer of water from the lake into the water conservation areas; (2) the Caloosahatchee River which flows into the Gulf of Mexico; and (3) the St. Lucie Canal which flows to the Atlantic Ocean. In addition, four canals extending from the lake to the east coast—West Palm Beach, Hillsborough, North New River and Miami Canals—have been improved to provide water supply to areas south of the lake and for flood control.

Agricultural Area South of Lake Okeechobee.—This is the most highly developed agricultural land in the project area, and is protected from floods by the Lake Okeechobee levees, and irrigated by water from the lake supplied through project canals. The total agricultural area is about 1,130 square miles.

Water Conservation Areas.—The project includes three water conservation areas south of Lake Okeechobee totaling approximately 1,350 square miles, which encompass and preserve a large part of the original Everglades. The fish and wildlife resources of Water Conservation Area No. 1 are managed by the U.S. Fish and Wildlife Service. The Florida Game and Fresh Water Fish Commission manages these resources in areas 2 and 3.

Lower East Coast Urban and Agricultural Area.—The strip of coastal area lying east of Lake Okeechobee, east of the three water conservation areas, and east of the Everglades National Park consists of 1,550 square miles of agricultural lands and some of the most densely concentrated urban development in Florida.

Everglades National Park.—The park was authorized by Congress in 1934 and officially dedicated in 1947; it includes about 2,300 square miles of land and water. The park may be divided into three main geographic areas: (1) the interior everglades, (2) the coastal brackish zone, and (3) the marine region, which includes the outer coast in-shore waters and keys.



Water is the most critical ecological factor in the park. Although not within the boundaries of the flood control district of the State of Florida, it is dependent upon water supplies from the project storage areas for its biological and ecological needs.

In 1949 the Florida State Legislature created the Central and Southern Florida Flood Control District and authorized it to act in com-

plying with conditions of local cooperation and in other matters related to the project. The district is administered by a board of five members appointed by the Governor and confirmed by the State senate.

The authorizing acts require that local interests shall provide all lands, easements, and rights-of-way; pay all relocations of highways, highway bridges, and public utilities which may be required for construction of project works; hold and save the United States free from damages resulting from construction and operation of the works; operate and maintain all completed works except certain major water regulation structures which are operated by the Corps of Engineers, and make a cash contribution for each part of the work prior to its initiation.

The estimated Federal cost of the 1948 Federal project as amended is \$330 million. The estimated non-Federal cost is \$146.3 million, consisting of cash contributions of \$72 million and other costs totaling \$74.3 million, for a total estimated project cost of \$476,300,000.

Allocations through fiscal year 1969 totaled \$170,479,000 and the appropriation requested for fiscal year 1970 is \$9 million.

The benefit-cost ratio is 5.2 to 1.0.

The Everglades is the name generally applied to the area extending southerly from Lake Okeechobee to points west of Miami and thence southwesterly about 40 miles toward Florida Bay and the Gulf of Mexico. The eastern border of the Everglades is the slightly higher sandy flatlands and the Atlantic coastal ridge.

The western edge is poorly defined by sandy flatlands and the Big Cypress Swamp. The Everglades proper covers an area of some 2,750 miles, of which about 1,350 square miles, or 49 percent, are in the three water conservation areas and about 192 square miles, or 7 percent, are in the Everglades National Park.

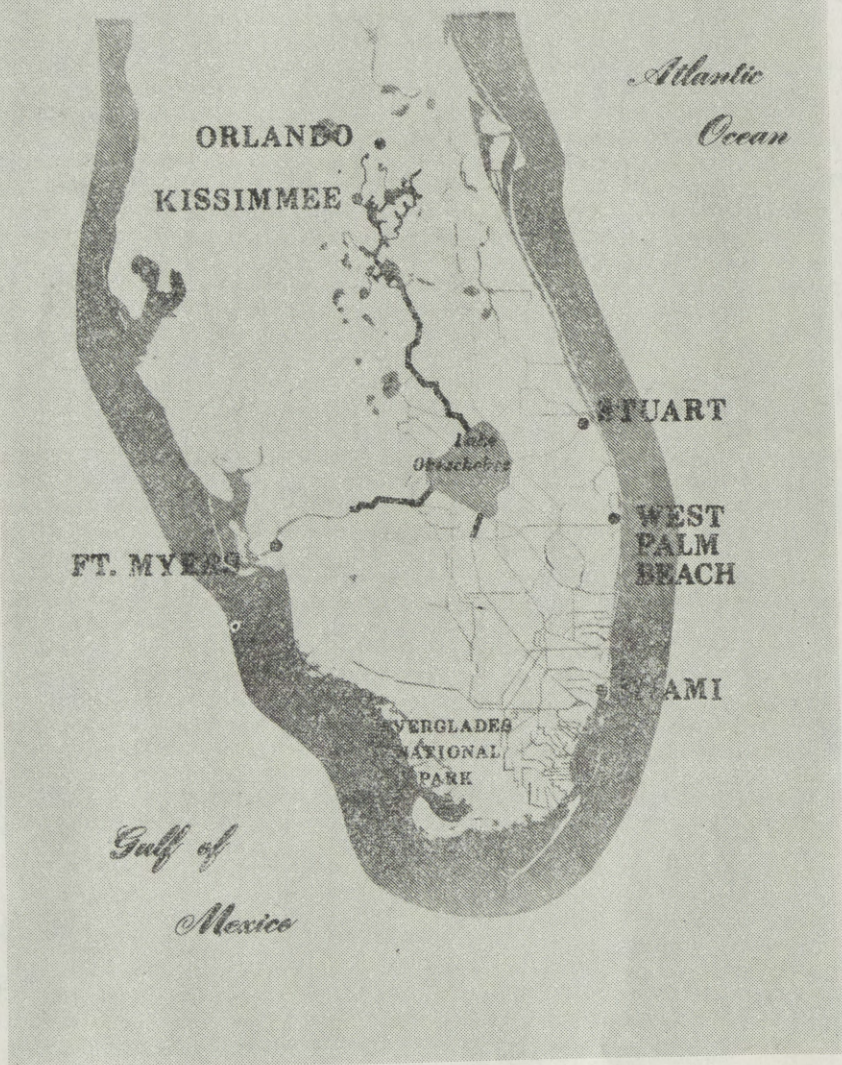
Before levee and drainage development began, Lake Okeechobee had no well-defined outlet to tidewater. During prolonged wet periods, the lake would overtop its southerly banks and flow into the northerly Everglades. Some of the overflow water reached the Caloosahatchee River which originated in Lake Hicpochee about 10 miles west of Lake Okeechobee.

Other flow went eastward to the ocean via natural streams and sloughs. Some water flowed south into the Everglades Trough. However, only during flood periods did surface water flow from the lake and gradually spread southward toward the Everglades National Park. A considerable amount of that overflow evaporated before reaching the park.

Records of Lake Okeechobee stages—available since 1905—show stages high enough to overflow the southerly banks only three times in the 21 years before the 1926 hurricane breached the low muck dikes that had been built on the south shores. The chief source of surface inflow to the park site was rainfall south of Lake Okeechobee. The further south such rains occurred, the more likely their water would reach the park area.

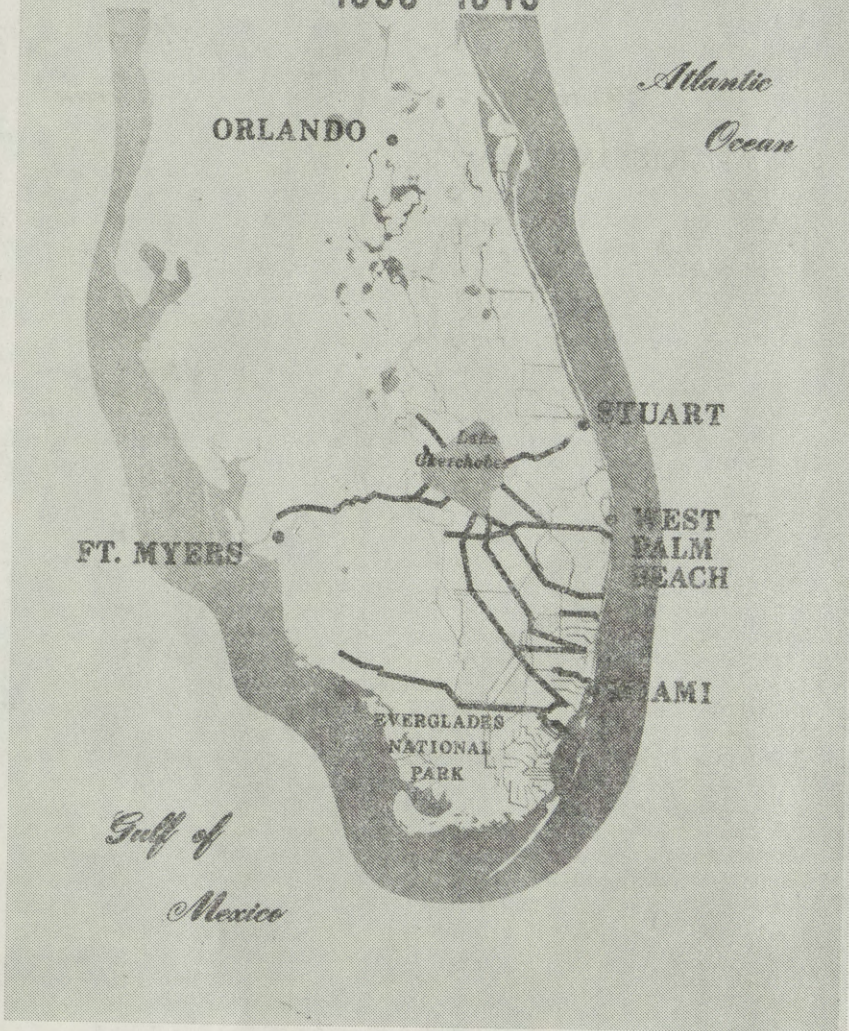
While at times of lake overflow large volumes of water did move southward, a common conception of a continuously flowing broad "river of grass" from Lake Okeechobee to what is now the park seems to be somewhat overdrawn.

DISSTON CONSTRUCTION PROGRAM 1881-1894



In 1881, under a contract with the State of Florida, Hamilton Disston, a land developer, commenced construction of drainage canals connecting some of the major lakes in the Kissimmee Basin. Lake Okeechobee was connected by a canal to the Caloosahatchee River. This provided the first major discharge channel from Lake Okeechobee to tidewater.

EVERGLADES DRAINAGE DISTRICT WORKS 1905 - 1948

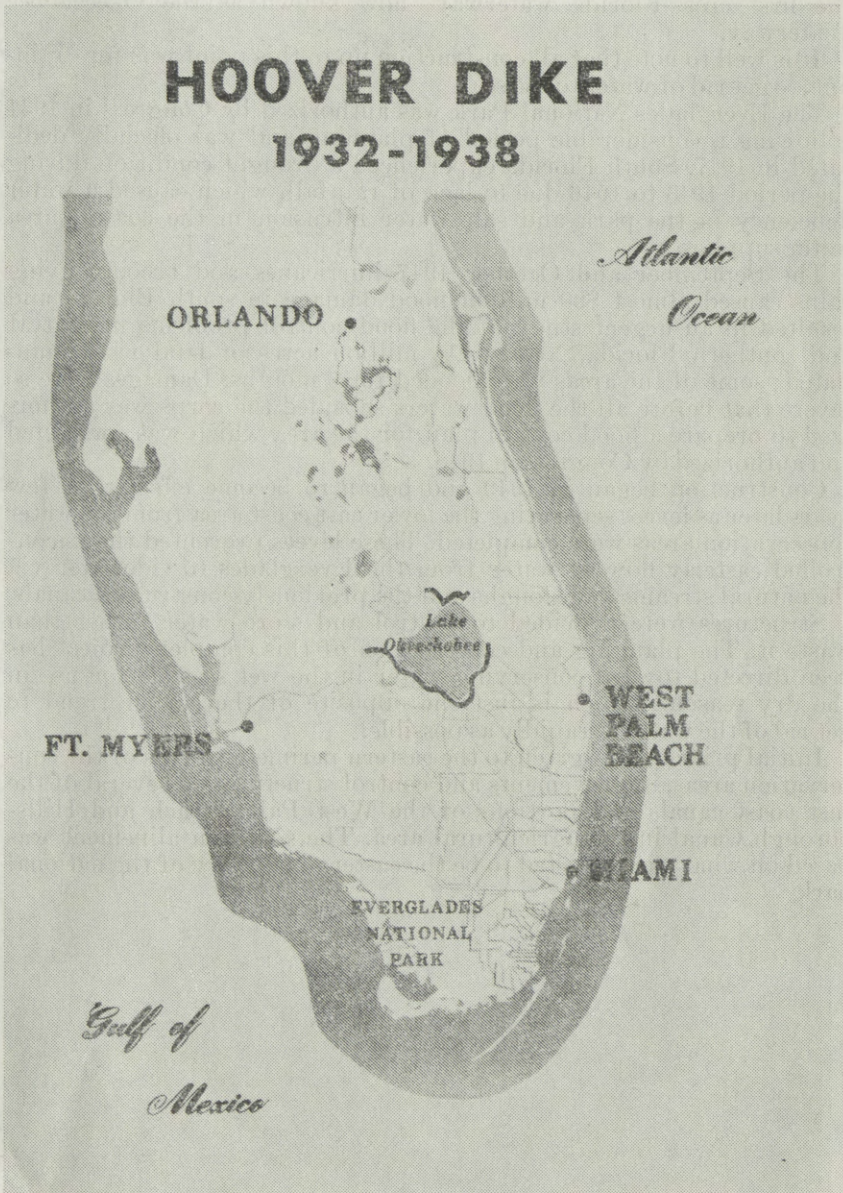


Commencing about 1900, other drainage activity began along the lower east coast. The Everglades Drainage District was formed as an agency of the State of Florida. This agency constructed over 450 miles of canals with control structures and 16 locks and spillways.

Major canals constructed included the St. Lucie Canal which provided a second major discharge channel for Lake Okechobee to tide-water plus the West Palm Beach, Hillsborough, North and South New

River, and Miami Canals. The Tamiami Canal was excavated in the construction of the Tamiami Trail across what was to be the northern boundary of Everglades National Park.

The Everglades Drainage District was abolished in 1949 by the Florida Legislature when the C. & S.F. Flood Control District was authorized. The result of this work was to reduce the southward flow of water by diverting some of it to tidewater. This construction was accomplished before there was a Federal flood control project for this area.



The 1926 and 1928 hurricanes breached the low muck dikes which had been built along the south shore of Lake Okeechobee, causing the second largest disaster this country has experienced, drowning over 2,500 persons.

As a result, the first Federal water control program for this area was authorized in 1930, which included substantial levees mainly on the south shores of the lake—later named Hoover dike—and enlargement of the Caloosahatchee River and the St. Lucie Canal for greater regulatory discharges from Lake Okeechobee. This program also provided the first cross-Florida waterway—now known as the Okeechobee Waterway.

It is well to note that all construction up to this point was for drainage, to get rid of water to the sea.

The Everglades National Park was authorized by Congress in 1934 following a considerable period of planning and was officially dedicated in 1947. South Florida experienced a drought condition during the period 1943 to 1946 due to lack of rainfall, which caused a water deficiency in the park and salt water intrusion in the coastal area water supplies.

The September and October 1947 hurricanes and accompanying rains caused almost \$60 million flood damage in south Florida and resulted in an urgent study of the flood control problems in central and southern Florida. Nearly 2½ million acres of land were inundated; some of the areas were flooded for 6 months. Damages were so severe that before all the flood waters subsided the corps was authorized to prepare a flood control plan for the area which was completed and authorized by Congress in 1948.

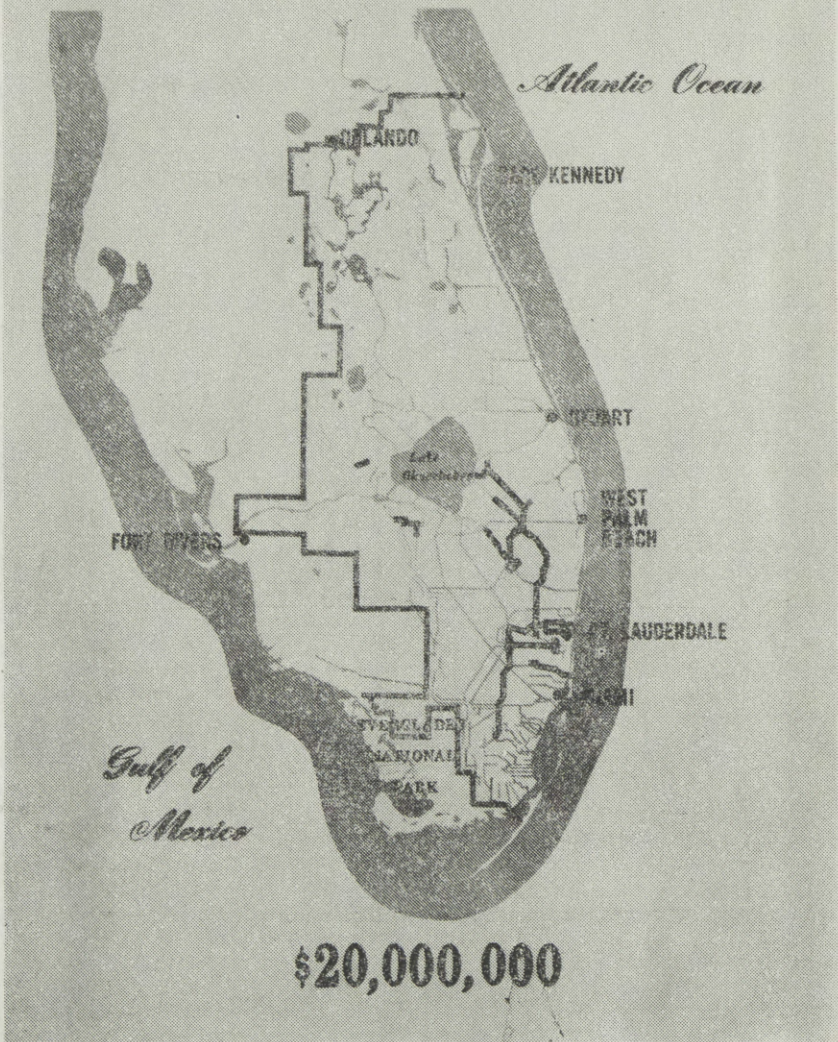
Construction began in 1949 and began to become effective a few years later as levees separating the lower east coast area from the water conservation areas were completed. These levees prevented the uncontrolled easterly flow of water from the Everglades to tidewater via the natural streams and sloughs and the previously constructed canals.

Structures were provided to control and store water rather than waste it. The planning and construction of this complex project has been directed toward conserving water in the wet seasons for use in the dry seasons, which is just the opposite of the earlier trend to get rid of the water as rapidly as possible.

Initial priority was given to the eastern perimeter levees of the conservation areas, improvements and control structures on several of the east coast canals and portions of the West Palm Beach and Hillsborough Canal in the agricultural area. The southern alignment was based on what was expected to be the eastern boundary of the national park.

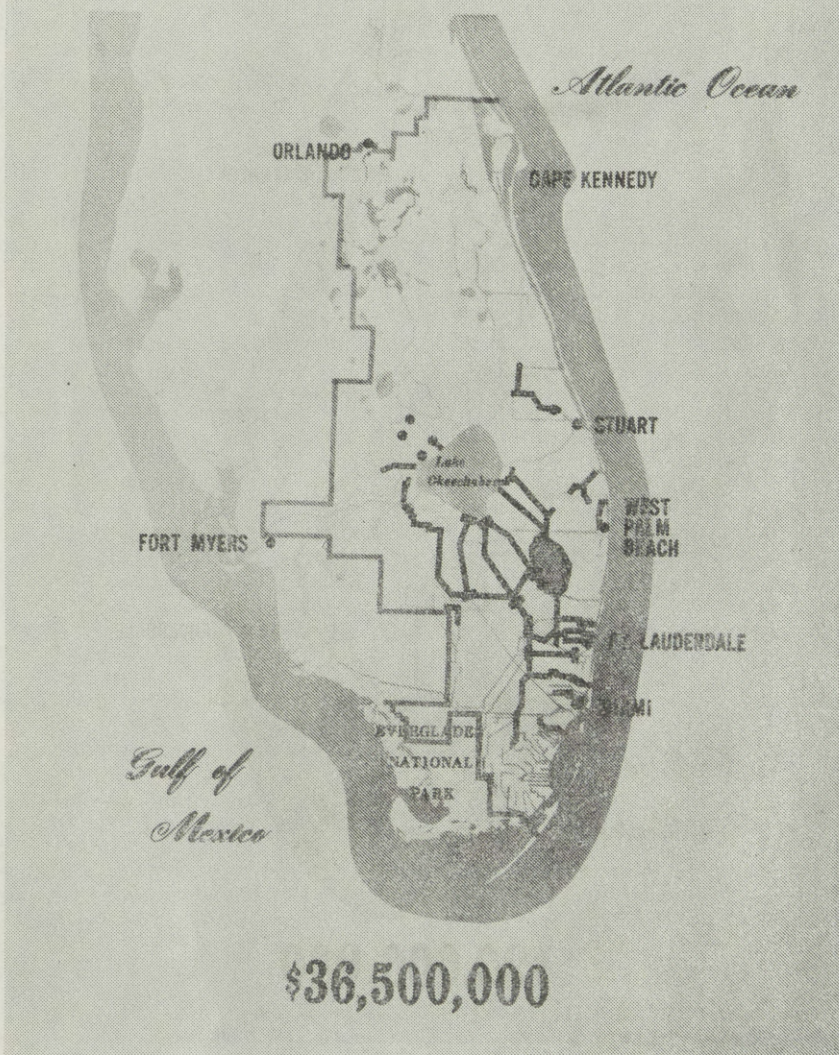
FIRST FIVE YEARS

1949-1954



SECOND FIVE YEARS

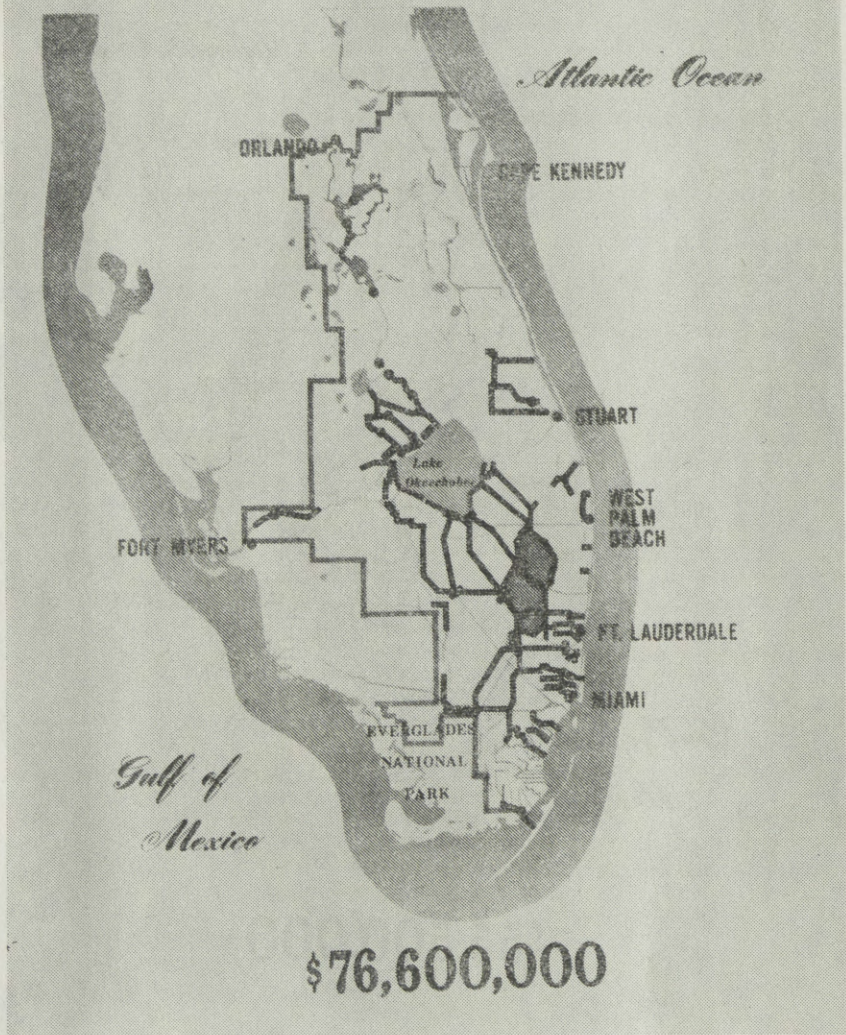
1954-1959



Most of the agricultural area works—pumping stations, control structures and canals—were constructed in the period 1954-59. In addition, construction continued on the conservation area levees, and coastal canals in the Miami and West Palm Beach Areas and St. Lucie County were constructed. Construction cost—\$36.5 million.

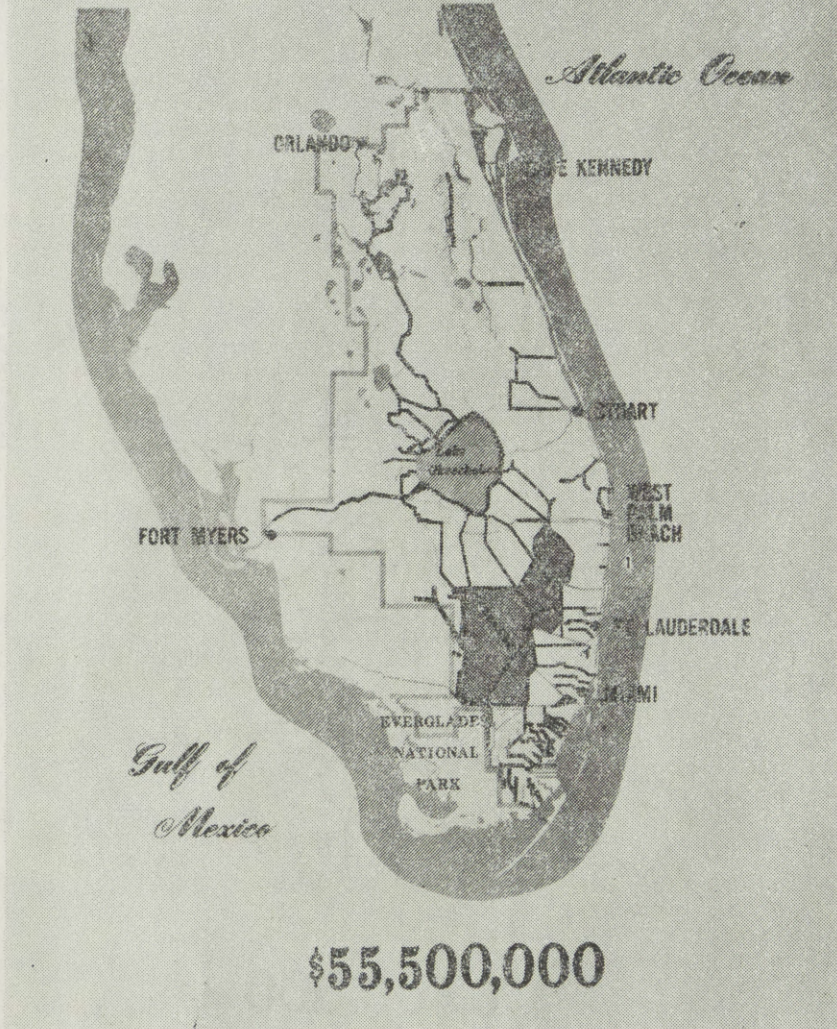
THIRD FIVE YEARS

1959-1964



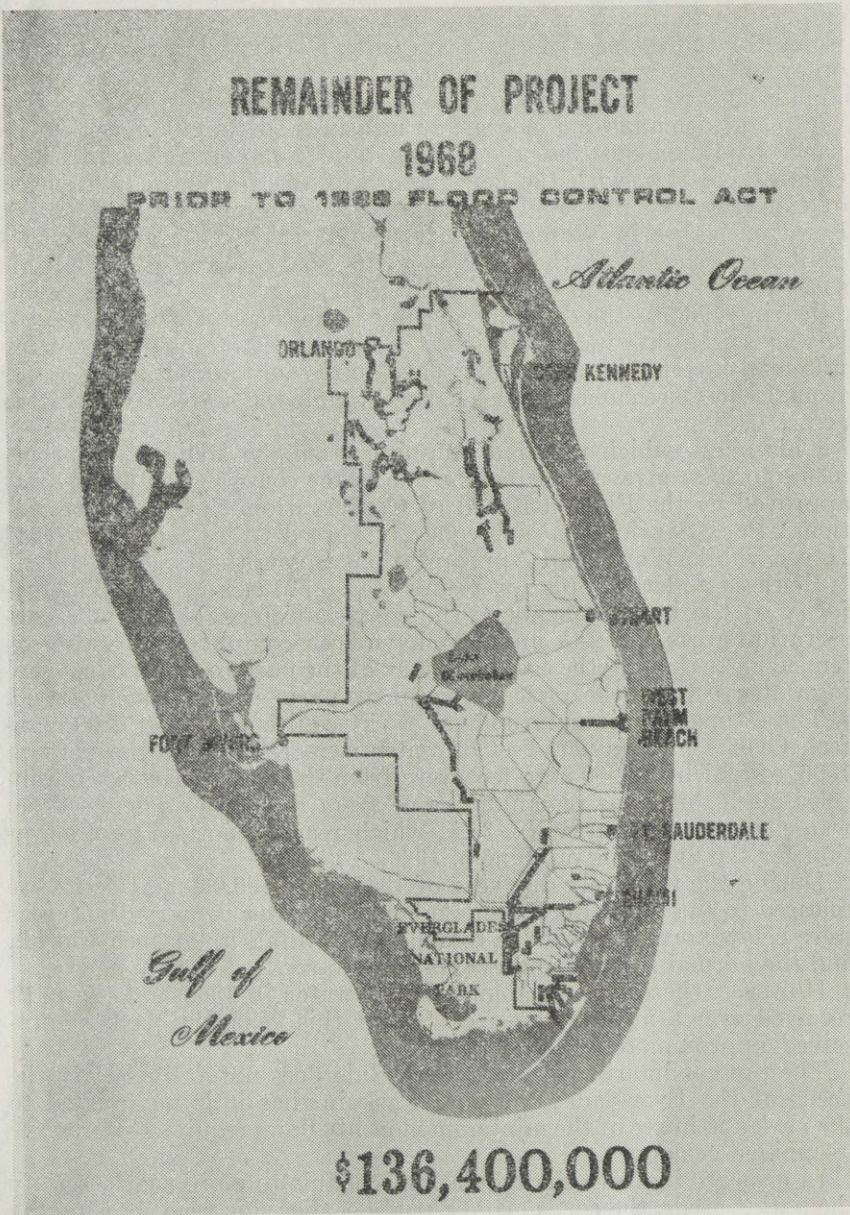
During the third 5-year period (1959-64), major works included channels, locks and control structures in the Kissimmee Basin, Lake Istokpoga works, the remainder of the St. Lucie County canals, and other canals in the Miami area. Construction also continued on the conservation area levees and enlargement of the levees on the south and southeast shores of Lake Okeechobee. Construction cost—\$76.6 million.

MOST RECENT CONSTRUCTION 1964-1968



Since 1964, work continued in the Kissimmee Basin and work started in the Upper St. Johns Basin and on the enlargement of the Caloosahatchee River. The northwest Lake Okeechobee levee system was completed and construction initiated on the northeast shore levees.

Considerable canal construction was completed in south Dade County, the western interceptor levee was constructed, and canal construction in Water Conservation Area No. 3 was initiated to improve our ability to deliver water from Lake Okeechobee to the northern boundary of the Everglades National Park. Construction cost—\$55.5 million.



The chart entitled, "Remainder of the project" depicts the planned balance of the project prior to the 1968 authorization which I will cover in a few minutes.

The most severe and prolonged drought of modern times in south Florida occurred during the 4-year period 1961 to 1965. During this period the recently closed water conservation areas remained virtually

empty due to a lack of rainfall, and conditions grew progressively worse for the ecology of the Everglades National Park and for all other water users in south Florida.

This unprecedented drought condition led to widespread controversy and demands for emergency measures to supply water to the park. In December 1964 the Central and Southern Florida Flood Control District, with the concurrence of the Florida State Board of Conservation, proposed a schedule of water releases to the park based on stages in Water Conservation Area No. 3A and a stage-discharge relation to the park gage in Shark River Slough. This schedule was placed in effect shortly thereafter.

During 1965, as the drought continued, the corps prepared a plan—known as the interim regulation schedule to distinguish it from the water resources plan then being developed—for the release of water from Lake Okeechobee to the park through the water conservation areas.

This plan—which required pumping from the lake and improvements to the conveyance canals in the water conservation areas—was approved by the Florida Board of Conservation, the corps, the National Park Service, and subsequently agreed to by the Senate and House Public Works and Appropriations Committees.

Releases under this plan were initiated on March 5, 1966. The majority of the improvements to the conveyance canals in water conservation areas No. 2-A and 3-A have been completed. We also extended a canal along the east boundary of the park to assist in conveying water to one of the critical areas of the park—Shark River Slough.

The estimated minimum annual park requirement is 315,000 acre-feet. Over a million acre-feet of water were released to the park in 1966, of which 129,000 acre-feet were from the lake under the interim release schedule; the remainder came from regulatory releases from water conservation area No. 3-A, which reached normal pool elevation for the first time on June 5, 1966.

During the relatively dry year of 1967, only 180,000 acre-feet were released to the park. Both the lake and the water conservation areas were below normal levels due to deficient rainfall over south Florida and the normal seepage and evaporation losses.

However, there was an abundance of water in 1968 and the park received over a million acre-feet. So far this year, the park has received approximately 320,000 acre-feet.

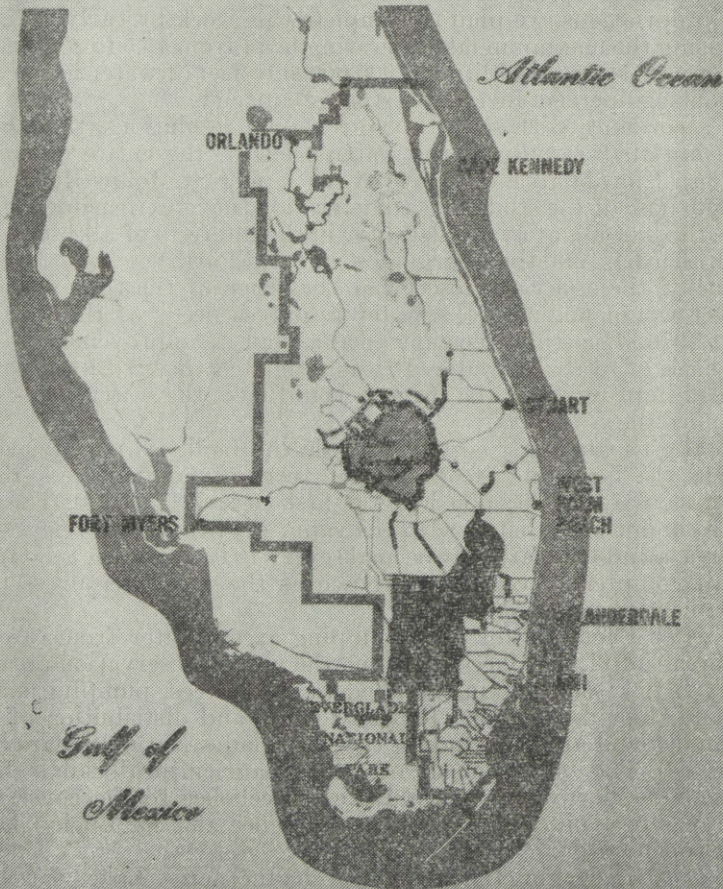
The present interim regulation schedule does not fully satisfy the needs of the Everglades National Park in that it is not related to the park's estimate of the minimum monthly flows required to preserve its unique ecology.

In order to improve the regulation schedule to more nearly satisfy the park's needs, the corps made a study earlier this year showing the effects of several alternative plans of regulation that would provide more water to the park.

Based on this study, the Florida Flood Control District developed a proposed revision to the interim regulation schedule with the objective of delivering water to the park at the Tamiami Trail outlet in the monthly amounts requested by the park to meet the annual minimum requirement of 260,000 acre-feet. The remaining 55,000 acre-feet is for delivery to the southeast park area.

The flood control district's proposal was considered at a meeting in West Palm Beach on April 17 by representatives of the corps, Florida Board of Conservation, National Park Service, Everglades National Park, and the flood control district. We are now waiting for formal comments from the National Park Service.

WATER RESOURCES PLAN



\$ 76,900,000

The Flood Control Act of 1948, as amended by the 1954 act, authorized construction of works which would permit raising the upper regulation level of Lake Okeechobee from 15.5 to 17.5 feet to provide additional storage capacity to meet the water demands of south Florida, including the Everglades National Park, and to provide additional flood storage capacity.

The major works included in this plan are the northeast shore levees, associated tieback levees, pumping stations, and water-regulating structures.

The total cost of the construction required to implement this plan is approximately \$37 million. Most of this construction is either complete or currently underway. The remaining construction will be placed under contract during fiscal year 1970 and, subject to the availability of appropriations, we plan to complete this work by early 1972.

Raising the maximum lake operating level from 15.5 to 17.5 feet will permit us to store an additional 900,000 acre-feet of water in the lake—or about a 20-percent increase in storage capacity.

In accordance with several congressional resolutions, the corps, in 1964, initiated a study of the water needs of the entire central and southern Florida area, exclusive of the Upper St. Johns River Basin. The purpose of the study was to determine the most feasible means to make the best use of available water in the interests of all users—agricultural, urban, and the Everglades National Park.

Briefly, the study disclosed that the scope of the then authorized project would not meet the water resources needs of the area after about 1976. The study recommended a plan of improvement to make better use of available water. It was estimated that with these recommended improvements the project would meet the water needs of the area until the year 2000.

Total estimated first cost to provide the facilities recommended is \$76,918,300, including \$6,617,000 for recreational facilities—Federal first cost, \$54,924,000; non-Federal first cost, \$21,994,300. The study also recommended that, due to the rapid growth and development in the area, an additional study be made every 10 to 15 years.

This comprehensive study—known as the water resources plan—recommended construction of:

(a) Facilities for back pumping excess water from east coast areas into Lake Okeechobee and the water conservation areas;

(b) A series of interrelated canals, levees, pumping stations, and control structures for conveyance and distribution of water to demand areas, including the Everglades National Park;

(c) The improvement of certain agricultural canals for removing floodwaters from Lake Okeechobee to the conservation areas to avoid using the Caloosahatchee and St. Lucie Channels to open water;

(d) Deepening the navigation channel across Lake Okeechobee;

(e) Construction of recreation facilities; and

(f) Raising the Lake Okeechobee levees to provide for an increase of about 4 feet in the authorized regulation stages schedule from 17.5 to 21 feet. This will give us an additional storage capacity.

The water resources plan was thoroughly coordinated with the various Federal and State agencies involved, and general agreement

reached as to scope and priorities for construction. This study was completed in February 1968 and incorporated into the project by the Flood Control Act of 1968.

Construction of the water supply features of the water resources plan will be accomplished concurrently with previously authorized works. The rate of accomplishment is dependent upon the appropriations received. The fiscal year budget includes \$9 million for this project.

This amount will fund contracts previously awarded; permit us to award contracts for the remaining work required to raise the lake regulation schedule from 15.5 to 17.5 feet, as I discussed earlier; initiate preconstruction planning for back pumping from the West Palm Beach and Tamiami Canals into the conservation areas which will increase the amount of water available for the Everglades National Park and the lower east coast area; and award other contracts. During fiscal year 1970, we will also initiate engineering planning for other high-priority items in the water resources plan.

Turning now to another related subject, Dade County Port Authority has currently under construction the first increment of a planned international jetport on a 39-square-mile site located in Dade and Collier Counties. This site borders the western edge of water conservation area No. 3-A and lies some 5 miles north of the northern boundary of Everglades National Park.

The planned interstate link from Tampa to Miami will provide access to the airport. The currently proposed I-75 alignment across water conservation area No. 3 is adjacent to Tamiami Trail.

Although the jetport site is outside the boundary of the central and southern Florida project, we do share the deep concern expressed by various Federal and State agencies and by several conservation groups relative to the impact the jetport will have on water flows to the park, and the maintenance of high water quality standards in the area.

Corps of Engineer personnel have participated in several meetings held in the past 6 months on this subject. We are represented on the Interagency Working Group recently established to consider the problem.

Approval of both the corps and the flood control district will be required before the Dade County Port Authority could discharge any waters from the jetport into the conservation area. Our approval will also be required on the alignment and design of I-75 across the conservation area.

It is quite evident that the central and southern Florida project has already provided a significant improvement in the water supply for this section of Florida, including the Everglades National Park. This project will continue to provide additional benefits as construction progresses.

It is also evident, however, that some mistakes have occurred in the past, primarily through lack of knowledge. In 1947, when the plan for this complex project was being developed, the water supply needs of the park were little understood, even by the National Park Service.

As a result of studies made over the past several years, our knowledge of the water supply requirements of central and south Florida and the Everglades National Park has greatly increased. I do feel that considerable progress has been made in the past 2 years to resolve previous differences and misunderstandings.

I am confident that the objectives of all the interested Federal and State agencies are mutually compatible with the primary objectives being to secure the maximum utilization of the water available in the project for the greatest benefit to all water users.

We in the Corps of Engineers, recognizing the needs of the Everglades National Park and the State of Florida, have evolved a plan to meet the needs of these interests until the year 2000. We have also recommended that this plan be reviewed every 10 to 15 years to modify it as required to meet population pressures and any other presently unforeseen problems and changes.

The execution and continued evolution of this complex project requires the full cooperation of the State of Florida and the various Federal agencies—and only with their cooperation and agreement on this project can we proceed. Working together on that basis will permit us to best accommodate all needs.

Thank you, Mr. Chairman, for affording me the opportunity to present the Corps of Engineers views on this important project.

The CHAIRMAN. Thank you, General Cassidy. I appreciate having your detailed statement and presentation regarding the history of this project.

Secretary Train, I would like to ask a question or two regarding the President's Council on Environment.

Is the Everglades problem the type of problem which the President's recently announced Inter-Departmental Environmental Quality Council will consider?

Secretary TRAIN. Very definitely; yes, sir.

The CHAIRMAN. Do you know whether this particular, classic, shall we say, case study will be placed on the Council's agenda?

Secretary TRAIN. I have already discussed the Everglades problem with Dr. DuBridge, the President's science adviser, who is the executive secretary, I think, of the Council. I discussed it with him on the same day the President announced the Council last Thursday, and at this stage, Dr. DuBridge has simply asked to be kept fully informed of the work of our joint Department of Transportation and Interior Department study committee.

I would assume that a decision as to whether this will go formally on the agenda of the Council will await the development of that study and the data.

The CHAIRMAN. I think it poses the kind of land use problem that is increasingly being found in other situations throughout the country. What I am concerned about is how many other "Everglades" type problems do we have pending before the country at this time? It seems to me a very serious situation in light of the impact that all of these activities are having on the quality of man's environment.

It is my understanding that the Corps of Engineers is not represented on the President's Council. Is that correct?

Secretary TRAIN. I believe the Department of Defense is.

General CASSIDY. No; it is not.

The CHAIRMAN. No; it is not. I raised this question when Dr. DuBridge was testifying on the problem. It would seem to me that the Department of Defense, and more specifically the Corps of Engineers, should be involved in the work of the Council. After all, the corps

by law is charged with tremendous construction responsibilities that get into areas that do have a tremendous impact on the environment.

I must say, speaking only for myself, that I think some consideration ought to be given to revising the Executive order which created the President's Environmental Quality Council. I realize this is not your responsibility, but I want to raise the point again, because here we are, with case history No. 1 of a problem, in a situation in which the Department of Defense is not represented. I am not here trying to find out who killed Cock Robin. I am simply trying to see if we can't find a better way to resolve the tremendous problems we are faced with. A lot of them represent leftover problems from the past.

Secretary Train, I might also mention, in this same connection, that I think the task force you and DOT have established is fine. I commend you for moving on this. But I do want to mention that, having just listened to General Cassidy's statement, it seems to me that his comments regarding the jetport matter make it essential that the corps be involved in this environmental task force.

I read from a paragraph of General Cassidy's statement on page 15 that is pertinent:

Approval of both the Corps and the Flood Control District will be required before the Dade County Port Authority can discharge any waters from the jetport into the conservation area. Our approval will also be required on the alignment and design of I-15 across the conservation area.

This points up the complexity of these problems, doesn't it? In other words, the building of the airport affects drainage and water, both of which affect the park. Since the corps is involved in the water project, all three of you are parties in this jetport problem as I see it.

Secretary TRAIN. I might comment that other agencies, also, Mr. Chairman, are involved. HEW, responsible for air pollution, is very much a part of this picture, and it is our intention insofar as our joint committee is concerned to work closely with all of these other agencies, but as you can tell from the design of the group, it is intended to be small enough to be able to move ahead and make some progress rather than trying officially to represent everybody who is concerned.

The CHAIRMAN. I understand that, but I think that structurally the corps is in charge of a very large area of land and water relating to the park's water requirements and flood control problems. The Department of Transportation is involved in connection with the jetport and proposed highway, and Interior is there in connection with the management of the park. I can see the need for all three to be directly involved in that task force, as well as the need to call in the HEW people and other agencies that will offer assistance with special problems.

This is my suggestion. I think Secretary Train has indicated the need for the Council of Environmental Advisers that I have in my bill, S. 1075. I think the Everglades problem illustrates the necessity of having a highly qualified team of advisers available to the President, such as the Council of Economic Advisers, to assist him in formulating long-range environmental policies.

I am hopeful that S. 1075 will be approved, and that we can have both an interdepartmental council, and a council or board of environ-

mental advisers to the President, to assist him in trying to make fair and objective decisions.

On May 29, I introduced a proposed amendment to my bill which would establish a national policy for the environment. Subsections 102 (a) (3) and (4) of this amendment direct that certain findings be included in every recommendation or report on significant Federal action, and that alternative courses of action be considered where there are unresolved conflicts concerning uses of land, water, and air. Had this statement of policy and directive to the Federal agencies been law at the time, what would have been its effect, in your judgment on the problems we are presently concerned with?

Again, I am not interested in placing the problems of the past on trial here. We are now trying to deal with the unresolved problems that we have, and will continue to have, in the future. The policy directives, which, by the way, the administration has agreed to, were laid down for the purpose of trying to avoid this difficulty in the future. If this had been the law at the time, what is your judgment as to the course of action that would have been followed here?

I recite this only as a case history, not to be singled out. There are numerous others similar to it.

Secretary TRAIN. Well, I am sure, if such a law had been on the books, Mr. Chairman, and if the agencies concerned had implemented the law properly, that we would be in much better shape now on this problem than we are.

Obviously, of course, a prime agent in this entire problem is the Dade County Port Authority, which would be outside the ambit of this legislation. One of our problems in the jetport situation has been, certainly in the early stages, lack of communication between the port authority and Federal agencies, certainly the National Park Service.

But I would agree without hesitation that the kind of legislation which you are proposing, while I haven't had a chance to examine it in detail, would be very helpful.

The CHAIRMAN. I want to mention that Dr. DuBridge, with the approval of the White House, has concurred in the language that has been submitted in the form of the amendments to the bill. I think that this sort of guideline is necessary for the Federal agencies.

General Cassidy, do you want to comment on that? Do you feel that it would be helpful if the Corps of Engineers could be advised as to procedures that are to be followed in connection with the environmental problems, so that some of these difficulties can be avoided in the future?

I realize that we are not going to resolve them all, because we are dealing with alternatives. When you are dealing with alternatives or options it depends on which one you select as to who is going to make the most noise.

General CASSIDY. I will speak on the park side.

If the park were being established now and such a policy and such procedures had been outlined by law, it would have helped very greatly.

This law puts into effect, really, what we tried to accomplish in this latest study and authorization. In other words, we believe we have a modification of the 1968 act to the project which does provide the capability to give water to the park in the amounts that they require.

We believe we can do that until about the year 2000. But this is Federal guidance, now, on how we could ordinate, and it sets up certain data collection systems, certain study systems, which do not now exist, so that we will have the information on which we can base our engineering judgments to determine the alternatives and proceed to a solution.

The CHAIRMAN. In connection with making water available to the year 2000 and also in connection with the water requirements of the Everglades National Park, does the corps have the authority to assign to the park a priority to water developed by the Federal central and southern Florida project over users which may appear in the future?

This is a matter, in all fairness to you, that was submitted to the Attorney General for an opinion. The request to the Attorney General came near the end of the previous administration, and the matter was pending at the time the new administration took office.

I have a letter from the Assistant Attorney General, Office of Legal Counsel, stating that: "In accordance with the custom of this Department in connection with the opinion requests that are pending upon a change of administration following the inauguration, we asked Interior to ascertain whether Secretary Hickel wished to renew his predecessor's opinion request. I have been informed that this matter is currently under study by the Department of the Interior."

Before you answer that, do you know, Secretary Train, whether there has been a followup, a renewal of the request for an opinion?

Secretary TRAIN. We wrote a letter to the Attorney General on the date of May 20, and I would be happy to submit a copy of this for the record, Mr. Chairman, inviting his attention to the fact of the pendency of our request for an opinion, and stating that we were having discussions with the Secretary of the Army on the problem, expressing the hope that the matter could be resolved by administrative agreement without the necessity of seeking an opinion by the Attorney General.

We closed the letter with the statement that, "In the event the Department of the Army and the Department of the Interior are unable to agree on this matter, I will again formally request an opinion from you."

If you would like that for the record, I will submit it.

The CHAIRMAN. Fine. We will have that placed in the record, Secretary Train.

(The document referred to follows:)

U.S. DEPARTMENT OF THE INTERIOR,
OFFICE OF THE SECRETARY,
Washington, D.C., May 29, 1969.

HON. JOHN N. MITCHELL,
Attorney General of the United States,
Washington, D.C.

DEAR MR. ATTORNEY GENERAL: As you may be aware, the Department of the Army and the Department of the Interior have for some time been in disagreement about the obligation of the Corps of Engineers to deliver a minimum supply of water to the Everglades National Park. On November 20, 1968, former Secretary of the Interior Udall submitted this question for resolution by the Attorney General, a copy of which is enclosed. An opinion from the Department of Justice is still pending.

I have written the Secretary of the Army requesting his attention to this matter in hope that this can be resolved by the two Departments without resolution by opinion of the Attorney General. I am also enclosing a copy of that

letter. In the event the Department of the Army and the Department of the Interior are unable to agree on this matter, I will again formally request an opinion from you.

Sincerely yours,

RUSSELL E. TRAIN, *Under Secretary.*

The CHAIRMAN. General Cassidy, do you care to comment?

General CASSIDY. On the first part of the question as to whether or not the Secretary of the Army has the authority to establish a priority, I think this is a question on which the law is really unclear at present.

Our position with respect to establishing a priority—first, if we have it, it will be discretionary; second, there seems to be no intent of Congress in the 1958 act or in prior acts to require an establishment of priority and, third, we immediately get into the area of controversy between the States and the Federal Government concerning the allocations of waters and the uses of waters. Of course, this has a long history, particularly in the Western States.

The CHAIRMAN. That is still pending.

General CASSIDY. Therefore, since, by this 1968 act, we will have water to supply the park up to the year 2000, we see no need to establish priorities right now. We have recommended that studies continue. The Department of the Interior has plans for studies in the park area and in the total area through its various agencies, so that we will have a greater knowledge of what is taking place in the area and what its needs are.

Future studies will show us what future water needs are. Future developments in the area will generate needs, and we will need studies to see how we can meet those. At some time in the future this question of priority may have to be established, but for the present, I believe we should go ahead and get this project underway so we can give the park the water it needs, and give it with assurance. We can't be assured of delivering this supply until we can store the water to carry over during drought periods.

This is our big problem, the storage of water.

The CHAIRMAN. Yes. The great concern here is that the population growth rate in southern Florida has been so enormous that it is highly questionable whether or not the necessary water supply will be available when you project demands.

I can see that on an interim basis you can meet the needs, but in the meantime, the various State agencies, State and local agencies will want to make plans to meet future requirements. I would think that this is something that can't be delayed too long. Otherwise, each of them, having their own interpretation of the law, will say "we have a vested right ahead of the park, and we can make our plans accordingly to meet our water requirements."

General CASSIDY. There are sources of additional water for this area. For example, there are tremendous evaporation losses. Perhaps we can do something about that in the future. There are tremendous seepage losses, which charge the well fields of the coastal cities. We have a requirement for salinity repulsion. There is a big pollution problem. It is going to get larger in the future. We can use sewage effluent to repel salinity, if that becomes necessary, and it is being done in other parts of the country. So there are ways of continuing to develop the water resources to conserve water, and this

must always be a continuing study in this area in order to get the water that south Florida and the park need.

The CHAIRMAN. Isn't it best, though, to resolve the conflicts, to the extent one can, between the Federal requirements and the local requirements, on a priority basis? People make their plans based on what they think their legal rights are, so I would hope that this question involving an opinion from the Attorney General would be resolved as early as possible, if it is resolvable.

Secretary TRAIN?

Secretary TRAIN. May I comment? We in our own Department are of the opinion, of course, that the corps does have this authority. We have a solicitor's opinion of our own to this effect.

We are, I believe, in disagreement perhaps with the corps on this, as they feel that the authority is ambiguous at best. But as General Cassidy points out, even if we receive an opinion from the Attorney General that the corps has the authority to set up a priority in favor of the park, this is a discretionary authority, and we would still have to reach an agreement with the corps to establish such a priority.

So that the mere fact of the Attorney General's opinion does not solve the problem. We still have the question of the relationship of the Federal needs to the State needs, and I think this is our major stumbling block at the present time.

We are concerned over the proposal to proceed with the project and worry about the question of priorities later. The corps, General Cassidy, assures us that if the plan is carried forward, there will be adequate water for the park until at least the year 2000. This assurance presumably is based upon the best available present projections of growth in that area. I don't think there is a person in this room who can feel anything but some uncertainty as to rates of growth in southern Florida. They have had a tendency to outstrip all projections, so that while we welcome this assurance, we don't now rest easy as a result of having it.

We are also concerned that to proceed with the project is, in a sense, to invite growth, and then study the problem and see what we do about it later.

It would seem to us that with the Federal Government putting up, as I understand the testimony, a total of some \$350 million as the Federal share, that the time to arrive at some understanding as to the rights of the Federal Government to water in the Everglades National Park is now, before the project is completed.

I am fully aware that this is water entirely in the State of Florida and that a question of sovereign rights has been raised here. At the same time, the Federal Government is putting up a very large sum of money. I think it is not unreasonable at this stage of the game for the Federal Government to seek assurances from the appropriate authorities of the priority for the Everglades National Park.

The CHAIRMAN. I hope there will be an opinion as soon as possible on this subject. In the end, however, it is still a discretionary matter that has to be worked out among the agencies, even if the Attorney General rules that the authority to establish a priority has been granted by the Congress. Am I correct?

Secretary TRAIN. That is as I understand it. It is a complicated question. Perhaps the general would have more knowledge of that.

General CASSIDY. Part of Interior's presentation, or brief, to the Attorney General, seems to be pointed at the obligation to determine this priority now. However, our main problem is to work out between Interior, the Army, and the State, an agreement which will satisfy the three agencies.

In order to proceed with the project, we must work with the State of Florida. They have an interest in the project. One-third of the funds are theirs, their lands, their waters, so it is a cooperative project, and rather than to make an issue of this problem now, we would rather proceed and leave the issue to the time that things really get tight, and we don't see them getting tight for some 30 or 40 years, and we have recommended constant restudy of the project so that we can solve the problems as we go along.

The CHAIRMAN. Thank you, General Cassidy. I want to make one observation, and that relates to the role of local government in dealing with problems of the environment.

I think it is a mistake to assume that the Federal Government must bear the sole responsibility on environmental problems. Even if this were a desirable objective, it couldn't be carried out under our constitutional system, because the major land use planning and management authorities are matters for the States to decide.

In my judgment, all 50 States have rather archaic governmental entities and institutions dealing with the problem of the environment. There is no greater need than to modernize State and local governmental entities and to deal with environmental problems.

The Federal Government has been moving much faster than the States in this area. The States have fractionated their responsibility, with overlapping and, often contradictory authority, so that it is pretty hard to do substantial work at the Federal level without running into trouble at the local level. I am not singling out Florida. I am talking about all 50 States.

I think Secretary Braman knows of the problem we have had in the Puget Sound area of Washington. Too often, in coping with environmental problems, the Federal Government can only use a carrot and a stick approach in obtaining State and local support to deal with environmental problems. This is usually accomplished through grant-in-aid programs. This is unfortunate because the police power, the authority to zone, and the authority to make determinations on air use and water use under our system of government rests with the States.

I did want to make this comment, lest someone get the idea that the President's Council or any other Federal effort can resolve all the problems of the environment by Federal action. Senator Nelson?

Senator NELSON. Thank you, Senator.

I have taken two trips into the Everglades, one of them just 3 days ago, to look at what is happening in there, and I think even the rankest amateur ecologist could come to no other conclusion than that the jetport, if the project goes through, will mean the end of the Everglades as a unique wilderness and ecological complex.

The meeting on April 17, 1968, with the Dade County Port Authority staff, their consulting engineer, and a member of the Miami FAA staff, was attended by representatives of the Everglades Park.

The port authority said that the current passenger load at Miami International Airport is 8 million annually with an annual employment for 1967 of 18,500 people. Using the same ratio of passengers to employees, with a projected figure of 50 million passengers for 1980 at the new jet airport, there would be 111,000 employees. However, these figures do not represent employees at the concessions and other businesses associated with supplying the airport with needed services, material, and supplies.

The end result is that expected population in the 40-mile bend area by 1985, will be somewhere in the area of a million people, if the airport goes in. I think that there is no conclusion that we can come to but that the project ought to stop right now.

All the area is under water today, or at least everything I could see flying over it, except the land fill being built up for the landing strip.

Even if we are talking about 50,000 employees, half as many, and if we are talking of developing a city for a quarter of a million people instead of a million, it is still the end of the Everglades, because there is no place to put the sewage at all. They will have to run the effluent down the water course.

The idea that you can dispose of the pollution that those planes, detergents, and the gasoline spills will cause, and not affect the park is completely unrealistic. Yet it is the position of the port authority that the pollution wouldn't be discharged unless it was treated first. We have no present science to clean it up to a degree that would protect this delicate area. But still we will build the airport, and we will get rid of the effluent, and the gasoline, detergents, and so on, will go to the park.

According to the projections, there will be 500,000 yearly commercial airline operations, 300,000 yearly commercial training operations, and 100,000 other operations a year. Passenger traffic at 50 million annually, total emplaned and deplaned. There will be 17,000 passengers moving through what the FAA considers the busy hour. You introduce this next to this wilderness park, and it is the end of the ball game.

I have here 145 questions submitted by a group of conservationists, including the Audubon Society, and by the flood control district, to the port authority. In answer after answer, the port authority says, "We are studying it." You ask them a question about what they are going to do about the pollution, they say, "It is under study." You ask what they are going to do about the detergent problem, and "It is under study." You ask them about a bird problem, and they don't anticipate one.

In New Zealand, the Army poisoned 2,500 birds because they couldn't keep them off the airport. Is it going to happen at the jetport? They say they don't anticipate a problem. There are going to be hundreds and hundreds of planes flying over this area every day. If nothing else, the air pollution alone is going to destroy it. So, are we ready to stop all moneys, all appropriations, and everything else until all questions are settled?

I am very pleased that the President has created an interdepartmental Council on Environmental Quality. I don't think it is the

answer because interdepartmental councils don't have a history of being particularly effective. But I think it is a good step in the right direction. I think Secretary Train is most perceptive in his evaluation of what this park is all about, the uniqueness of it. What we are confronted with is either the FAA doesn't give them any more money for planning the airport, the Corps of Engineers stops all its building, the Department of Transportation does not provide aid for a highway in there, until all questions are settled, or else we publicly confess right now that we have decided that we are going to go ahead and destroy the park. I don't think there is any other answer.

Do any of you gentlemen think you can put a quarter of a million people or a million people next to the Everglades and dispose of the effluent without polluting the park?

Do you gentlemen think you can put a quarter of a million or a million people in that area, and handle the pollution, and save that area as a unique ecological complex in its present state?

General CASSIDY. In the first place, that particular question is not a Corps of Engineers problem, except in part.

This is the project boundary. The airport is outside the project boundary. There is a ridge through this part of Collier County. Drainage from this area goes here (indicating). Drainage down here goes in this direction.

So that part of the park that will be threatened by drainage from this area is probably this panhandle on the west. I believe that we could keep drainage from the airport area out of the main portion of the Everglades. There is a slope like that (indicating). But it does pose a very great threat, and right now no one has dug into it.

There is no data, really, except somebody saying a jetport is going in here. I agree with your projection. There is going to be an enormous city built in this area, if this continues. You can fight total effluent from that area to the sea, if someone wishes to pay the money for it.

But there is the problem. What are we going to pay, in cost of danger to the environment, or in dollars, and that still is not resolved.

Senator NELSON. There is no plan, there is no engineer in the world who has any notion right now what you would do to produce an effluent which is 100 percent free of nutrients. They talk about discharging the underground, and they will then get it in Biscayne Aquifer and in Miami.

The point I am raising is that I think every single ecologist that you have in your Department will tell you that if this airport develops the way it is intended to develop, that it will be the final insult and will destroy the park.

My question is, are we prepared right now to say that we are not going to appropriate any Federal moneys to start that airport? We can talk and fuss about it, but while we do, it is going ahead. We are going to have the first plane in flight the first of October, I believe.

If we go ahead with the appropriations for the airport and the highway, the ball game is really over. We get to a stage where everybody says, "It is too bad, and it shouldn't happen, and we shouldn't have gone this far." Isn't that correct?

Secretary TRAIN. May I respond to that?

First, let me assure the committee that the study that is getting under way right now, jointly sponsored by the Department of Transportation and Interior, is not intended to be a long, long-range study that will go on and on and on.

We expect to have some answers this summer, sufficient to make at least some preliminary conclusions on.

Secondly, if the Department of the Interior is satisfied that either the training facility or the ultimate commercial jetport, as designed, will destroy the park, and this effect cannot be avoided by any presently available technology, the Department of Interior will do everything in its power to stop the training facility and/or the commercial jetport. I assure you of that.

Senator NELSON. I am very pleased to hear you say that, Mr. Secretary. I think it is very important.

Secretary TRAIN. We do not have much of the authority, you know, that you were discussing. It is now within the authority of the Department, but this would be a policy which we would pursue.

Senator NELSON. May I just add this. The Secretary of the Interior is a member of the President's Environmental Council. In my judgment, this would be the first test of the effectiveness of the President's Council. We are now confronted with a specific situation in which a hard decision has to be made. We either make it, or we don't. We got to this stage over a period of years, and it is not a fault of this administration that we are where we are. It is an accumulation of mistakes and omissions and shortsightedness over a period of time, but this is exactly the kind of disaster that is coming upon us, day after day in various circumstances.

The Everglades is a test of whether or not we are really committed in this country to protecting our environment, by saving the only ecological complex of this kind in this country and perhaps in the whole world.

The CHAIRMAN. On this same point, Mr. Secretary, section 4(f) of the Department of Transportation Act, which I sponsored, requires the Secretary of Transportation to cooperate and consult with the Secretaries of Interior and other departments, in developing transportation plans and programs that include measures to maintain or enhance the national beauties of the lands traversed.

Also, section 4(f) of the act states that the Secretary shall not approve any program or project which would use land from public parks, "unless, (1) there is no feasible and prudent alternative to the use of such land and, (2) such program include all possible planning," and so forth.

Now, I realize this occurred before either you or Secretary Volpe were in office, but do you know whether there was a consultation between the Secretary of Transportation and the Department of the Interior in accordance with section 4(f)?

Secretary BRAMAN. Mr. Chairman, do you mean at the time that the first official action was taken?

The CHAIRMAN. Yes, the grant of \$500,000.

Secretary BRAMAN. The runway and so forth for the training base?

The CHAIRMAN. Yes.

Secretary BRAMAN. I am not prepared to answer that, Mr. Bowers, do you know?

Mr. BOWERS. There was not consultation between the secretaries' offices. There was considerable consultation between the agencies involved.

Secretary BRAMAN. Thank you.

Actually, I think one of the things we have to recognize, and if you will pardon me, Senator Nelson, I think it is an oversimplification to say that we should stop the project. The only place, or the only hold, or place where we have any responsibility is under 4(f) of the Transportation Act. We only have that because of the fact that we are involved to the extent of a \$500,000 grant for the runway and smaller additional amounts for lighting and instrumentation of the training airport.

Even the withdrawal of this, if this is legally possible, would not stop the development of the airport. The problem we have here is a local jurisdictional one, and the Department of Transportation can withdraw, and the product will not be changed one bit. Our participation does give us a voice in the development.

The CHAIRMAN. I appreciate the problem you are up against, and I do think that section 4(f) should have been invoked here. I think it would be useful, Secretary Braman, if we could have for the record the consultations that took place at the staff level between the two departments, if there were any.

Secretary BRAMAN. We will determine what took place and provide the committee with this.

(The information requested is as follows:)

OFFICE OF THE SECRETARY OF TRANSPORTATION,
Washington, D.C., June 27, 1969.

Hon. HENRY M. JACKSON,
Chairman, Interior and Insular Affairs Committee,
U.S. Senate, Washington, D.C.

DEAR MR. CHAIRMAN: During your recent hearings relative to the Everglades, you requested for the record a résumé of the essential communications occurring between the Everglades National Park and the Dade County Port Authority/FAA prior to commencing construction of the training and transition airport at its present site. That résumé follows:

In a letter dated 21 March 1967, Superintendent Allin of the Everglades National Park expressed his concern over press reports that a jetport was to be constructed in the Everglades, to the Director of the Dade County Port Authority. To brief Park authorities, a meeting was arranged for and held in the offices of the Authority on 28 April. At that time, Superintendent Allin and members of his staff were advised that such an airport was in fact contemplated at a location within Dade County immediately adjacent to the Park's boundary (T 54 R 34, see enclosed exhibit).

By letter dated 2 May 1967, Superintendent Allin advised that the location caused great concern to the Park and urged reconsideration of its proposed location. The Superintendent advocated that further exploration be made of a site several miles north in Collier county (T 52 R 33, see enclosed exhibit) stating "While you indicated the cost of this alternate site would be greater, it may be that the savings in fill and development would more than offset the higher land costs. We submit the Collier County location or other of the alternative sites under consideration, including Homestead Air Force Base, would serve your purpose of being void of people, while satisfying our concern over flight patterns over the Park."

During early May 1967, the Park verbally requested assistance from FAA in determining the patterns and levels of aircraft noise upon the Park. By letter of 26 May 1967, the FAA provided typical noise contours for takeoff and landing patterns and advised concerning their use. FAA further indicated that existing evaluation techniques were directed to human reactions rather than to the en-

vironmental factors of concern to the Park. Because of this, FAA expressed the view that the resulting findings would probably not be responsive to their needs.

On 31 May 1967, the Regional Director of the National Park Service (Southeast Region, Richmond, Virginia) expressed further concern in a letter to FAA's Atlanta Regional Office. In response to his request for additional information, he was advised by letter dated 5 June 1967 that the Port's originally proposed site adjacent to the Park had been abandoned and that the Port was now studying sites in the vicinity suggested by the Park Superintendent's letter of 2 May 1967. Acting Regional Director Marshall replied on 8 June 1967—"Advice that an alternate site in the general vicinity of T 52 R 33 is under advisement is very heartening to us. We sincerely appreciate the consideration being given to the Park in this regard."

On 27 March 1968, the Port Authority arranged for a tour of the airport site as finally selected. Attending the tour were Wildlife Biologist F. J. Jones, Jr., Bureau of Sport Fisheries and Wildlife, Department of Interior, and Engineering Technician Ron Hermantz, U.S. National Park Service. Their observations dealt with the need for the airport to be planned and constructed in a manner compatible to the natural site environment. Each gentleman gave the impression that the site was suitable to Park authorities, with each offering his future services for ensuring the airport's environmental compatibility.

On 17 April 1968, a meeting was held in the offices of the Port Authority's consultant to review three (3) preliminary master plans for the airport, and to discuss the impact of alternative flight patterns upon the National Park. The Park's representative, Mr. Miele, stated that the Park could coexist with a single runway airport aligned east-west. He further stated that the plans for removal of water southward in the L-28 canal were acceptable but that pollution must be avoided. The planning group agreed that drainage, roadway and other planning affecting the Park would be coordinated with the Park Service.

On 12 June 1968, a meeting was held by the Port Authority to discuss drainage for the overall construction of the airport. Park representatives in attendance were Mr. Ralph E. Miele and Mr. Richard W. Klukas. They stated the Park would like to have all of the airport's water runoff but would like to have it from the airport's southwest boundary so as to provide water to a new relatively dry area of the National Park.

At a follow-on meeting of 20 June 1968, the ecology of the site was the prime subject. Attending for the Park were Mr. Miele, Mr. Klukas, Mr. F. C. Craighead, and Mr. Bill Robinson. It was decided that the site's primary ground cover should remain in its existing state wherever possible where necessary to be disturbed. It was agreed that the resulting rock embankments or slopes were to be seeded or sodded.

Topping of trees was deemed to be impractical and wherever required, such trees should instead be removed. It was further agreed that for future reference color photographs of the undeveloped site would be taken and that airport fencing was required to both keep out and protect animal wildlife.

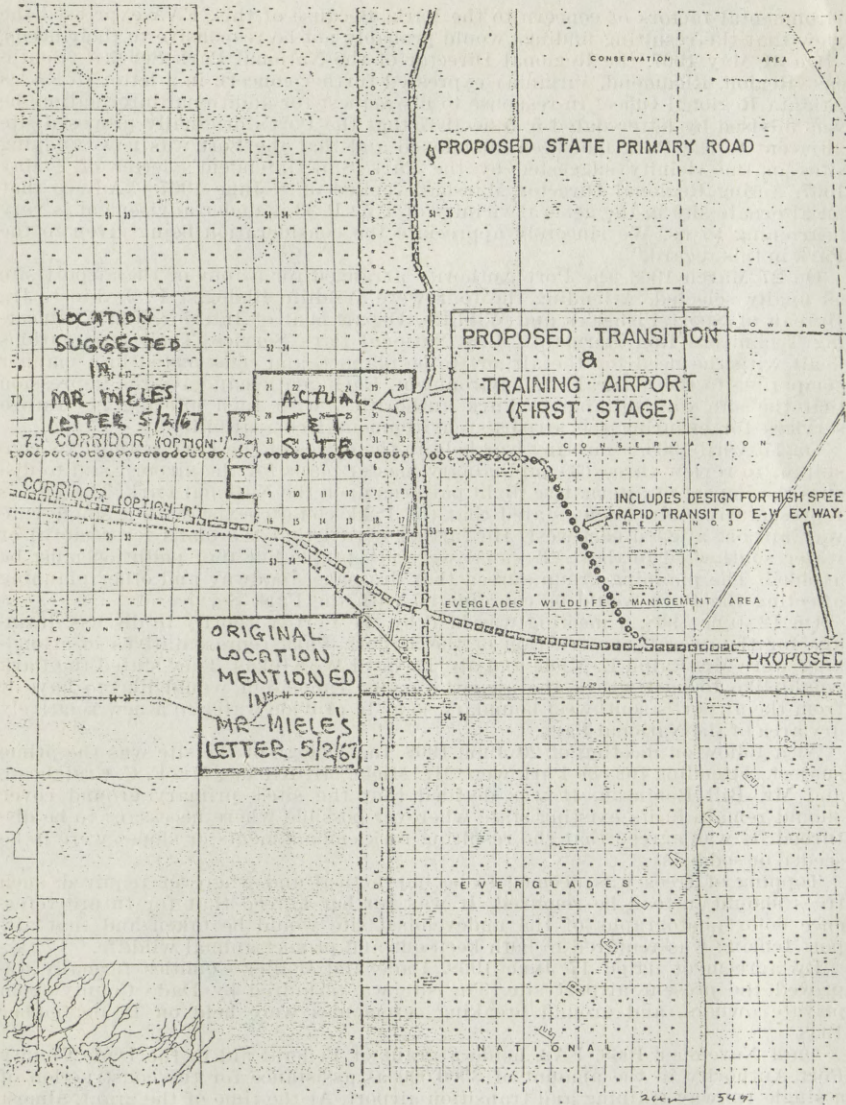
By agreement dated 17 June 1968, Dade and Collier Counties formally approved the present airport site. The site was acquired by Dade County from private owners, and ground breaking ceremonies were held on 18 September 1968.

On 4 November 1968, FAA made a grant of Federal aid to the Dade County Port Authority in the amount of \$500,000 as assistance for the construction of a single runway training and transition airport. At the time of the grant, almost two years of periodic coordination with the Everglades Park Authority had transpired without producing a positive position opposing the airport's construction. Rather, as the foregoing chronicle would indicate, the FAA possessed the distinct impression that a training and transition airport at the selected site, with proper engineering controls and actions, could compatibly coexist with the Park's environment.

Sincerely,

J. D. BRAMAN,

Assistant Secretary for Urban Systems and Environment.



Secretary BRAMAN. I must reiterate, without attempting to alibi, or in any way attempt to evade responsibility by the present group of us who are in the Department of Transportation, that these actions did take place before we had the full consciousness that now pervades the Department of the responsibility we have under section 4(f), although we are persuaded that a violation has occurred. We certainly intend to make sure these responsibilities are carried out.

The CHAIRMAN. I am fully aware of that situation.
Secretary Train?

Secretary TRAIN. I would like to add that only yesterday the two Secretaries, Secretary Volpe and Secretary Hickel, met, and this was one of the subjects under discussion, the implementation of section 4(f).

The two Secretaries are agreed between themselves that their respective Departments would examine the effectiveness of the present procedures under section 4(f), with a view to making sure that the job is being done right.

The CHAIRMAN. I would think that it would be appropriate for the Department of Transportation to suspend any further grants pending the outcome of these discussions.

In addition, they will require a tower at this training facility which involves FAA approval, and the Department of Transportation could use this as a lever. The facility cannot operate without FAA controllers.

I am not suggesting how far you can go. I don't know.

Secretary BRAMAN. I think we are on rather weak ground there, because the FAA relates primarily to the use of the air space, not the ground conditions.

The CHAIRMAN. Yes, but the use of the airspace is the point that was being developed by Senator Nelson. Part of the damage that would be done to the park would result from the use of the airspace as it relates to the park. That is in addition, of course, to the water pollution and and other environmental problems involved.

Secretary BRAMAN. Mr. Chairman, I must say that I think we are talking about a different ball game. The question of authority in the field of environment is spelled out in section 4(f) and other directives which we have, but I don't believe—I could be wrong, but I don't believe that legally the FAA can revoke their approval of a tower needed for the safety of people using aircraft as a means of stopping or starting an airport.

The CHAIRMAN. No, but where it is immediately adjacent, as the jetport is, to the Everglades park, it would seem to me that it would have an impact on the operation of the park. Subsection 4(f) stipulates that such programs—referring back to what the Secretaries must do—include all possible consideration of such harm which might occur to the recreational area.

There is no question but what the jets coming right in over the park will damage the ecological balance of the park. I think this is a point you might want to consider from the standpoint of dealing with the problems of the environment.

Secretary BRAMAN. Mr. Chairman, there is no question of that. It is not clear that there will in fact be significant park overflights in connection with the training operations.

I think one thing we must remember in all this discussion, and this is a primary example, the Miami jetport, I think all of us together bear at least two responsibilities. One of them is to provide to the people of the Nation the things they need in order to be able to carry on their daily existence, their lives. We also have the newly defined, extremely heavy responsibility of doing this within the framework of effect on the environment.

But I think we must always remember, when we have an area like the Miami area, these people are going to need transportation facilities, and if we have carried out the first requirement of 4(f), that we have found there is no feasible alternative, studies up to this point have indicated there isn't, and this is one of the things the new task force is going to look at, then the next thing would be that if the airport has to be installed, it must be done with the least impact on the environment. But we are not relieved of our other responsibilities.

The CHAIRMAN. I quite agree. I think what we are trying to do is establish what options are available and what the alternatives are. It was for this reason that I was interested in knowing what steps were taken last year with reference to the provisions of section 4(f).

We are confronted in all of these situations with balancing our daily economic requirements with environmental considerations, and it is a very difficult balancing act when you get into tight situations. I think, however, that with the effort being made, an optional site could be located, although it may not be as convenient. I understand there is a site to the north that might be entirely feasible. This, again, of course, gets down to problems of convenience to the public.

Secretary Train?

Secretary TRAIN. On the question of what can be done about this in terms of authority, we are, in the Department of the Interior, looking into our legal rights in case the jetport does go ahead, and we determine that it is seriously detrimental to the park. We want to know the possible legal remedies which we may have to protect the park, either in the case of overflight, air pollution, noise pollution—I think this is a whole area of legal remedy which must be explored, and we are doing that within the Department now.

The CHAIRMAN. Very good.

Senator Nelson? I am sorry to trespass.

Senator NELSON. On the question of authority of the FAA to set flight heights for safety, I have an amendment which will go in soon to authorize the FAA to negotiate with the Park Service to protect the integrity of the park environment by protecting the airspace over the park.

Secretary BRAMAN. That type of legal authority might be very helpful if there should be an overflight problem.

Senator NELSON. I realize that no department has adequate authority to deal with all the complex issues that are raised by this issue, but combined, you have got the authority.

Now, the corps has spent \$170 million of Federal moneys building the flood control project. Therefore Florida can't argue that this is Florida water and Florida land and therefore the Federal Government has nothing to say about it. On the question of water, General, your emphasis bothered me a bit when you said, if I understood you correctly, that it wasn't necessary to make the decision until there was a real squeeze.

It is my own view that the decision ought to be made now, but let me ask several questions first. What is the estimate of the water necessary for a minimum guarantee to the park?

Secretary TRAIN. 315,000 acre-feet per year is the figure we are using. The General knows more about this than I do, Senator. That

apparently is the delivery we must have from the Corps of Engineers.

Now, what the total water requirements of the park are, I don't know.

Senator NELSON. If you have a real wet season like we have now, there is no problem, but when we talk about 315,000 acre-feet, are we talking about the necessary supplement in drought years?

General CASSIDY. No, sir. We are talking about an annual delivery to the park through this system alone, and the western—most discharge point is here. (indicating on map).

We are talking about delivering water, 280,000 acre-feet from the lower end of conservation area 3 to a system that puts it down to Shark River Slough and this area. The remaining 55,000 acre-feet is to go down to Tailor Slough and this panhandle here. Beyond that, we will also make a distribution of this water down a new canal to be built so that we will be putting some water down through this area. (indicating).

But basically, the water going into the park over here in this direction from the land above the park.

Senator NELSON. You said 280,000?

General CASSIDY. 315,000. 260,000 is to come down through this system, and 55,000 is to come in through this system (indicating).

Senator NELSON. I understand this 315,000 acre-feet to be what the park feels is a minimum. Is that correct?

General CASSIDY. A minimum annually.

Senator NELSON. I recollect that 315,000 acre-feet is the equivalent of seven-tenths of a foot from the surface of Lake Okeechobee. Is that correct?

General CASSIDY. It is about that, sir. One foot is 450,000 acre-feet on Lake Okeechobee.

Senator NELSON. Now, you have added levees around the lake, is that not correct?

General CASSIDY. Yes, sir. The regulation level now, the upper regulation level is $15\frac{1}{2}$ -feet. We are raising that to $17\frac{1}{2}$, at the present time, gaining 2 feet of water.

Senator NELSON. That will be an increase of about 900,000 acre-feet?

General CASSIDY. That is correct.

Senator NELSON. My query is then, why can't the board and the Government guarantee in perpetuity a minimum of 315,000 acre-feet, since out of Federal moneys, we are creating three times the amount of water that the park will need.

General CASSIDY. Two-thirds of the cost of this project is Federal. One-third of the cost comes from Florida, so it has been a cooperative project right along.

The cost of flood control—flood control is a Federal purpose, and it is usually paid for by the Federal Government.

Some costs of drainage under the 1944 act are Federal purposes. When you get into irrigation, water supply, then there is a reimbursement by the State.

Generally the State, since this is a very complex project that has everything in it, pollution abatement, salinity repulsion, agricultural water, drainage, flood control, and navigation. There is a distribution of cost, and we have worked it out with the State of Florida, and it is a joint project entirely.

You can't separate one portion from another. Part of the system is operated by Florida, and in part of that we reimburse their costs for what they are doing for the Government, particularly in the park.

Senator NELSON. I understand. We are paying for 600,000 acre-feet, and all the park is asking for is 315,000. All I am saying is that we are producing with Federal moneys twice the amount of water that the park asks as an annual guarantee, and we won't give them an annual guarantee, despite the fact that the first user was the park.

Many users above conservation area 3, much of that agricultural development, came after the park, or certainly subsequent to the area, because the Everglades as a complex was always there. When did they start the original agriculture right below Lake Okeechobee?

General CASSIDY. The drainage canals were started in 1900 there.

Senator NELSON. Then how about the Southeast, is that new?

General CASSIDY. Yes. The agricultural area here is still developing.

Senator NELSON. What we are talking about, then, in any event, is that the need of the park is 315,000 acre-feet. We put \$170 million in canals. We are raising the lake again another 2 feet. Why can't we guarantee the park water? We know what the park's minimum needs are. Why should we be left in a situation where, at a subsequent date, as the population and water demands grow? More users will be saying, the water has to come from the park.

I don't think we should be in the position of saying, "You can grow as long as you can steal water from the park." Yet without a guarantee, that is exactly what the situation is going to do.

Why can't we have an agreement in perpetuity for having water for the park?

General CASSIDY. If we can make the agreement, we can do it, but it is the question of the agreement.

Senator NELSON. Well, I know, but we can just stop this canal building. It seem to me we don't have to sit here and be clobbered by the State of Florida. This is a national park. We are all taxpayers. We have given them \$170 million. We are asking a very reasonable thing, 315,000 acre-feet. Yet we can't get an agreement. It is ridiculous, it seems to me.

General CASSIDY. This is the position we are in.

Senator NELSON. You mean you can't do anything about it?

General CASSIDY. We are talking about a unilateral decision by the United States to tell Florida that 315,000 acre-feet of water is going to go on the park regardless of what happens. That is the point that is being raised, and all the corps has said is, since we have provided water in a cooperative project—we have a plan to provide water up to 2004, we have made our projections the best we can. We believe we can supply water to Florida and the park through this system with the cooperative project to the year 2000, but we also say, "study it about every 10 years."

So all the corps is saying now, because of the need to go ahead right now, the park cannot get the water if this project doesn't go ahead. You can't carry over water unless we put in these facilities. You can't move it unless we put them in.

Senator NELSON. I know we are back where we started, but suppose that at the time of the early floods, we had had the foresight to say to

Florida, "Yes, we are going to put in \$170 million by 1968, we are going to put in all the canals you want. We are going to have a flood control project, and irrigation for farms, and all we are asking for our \$170 million is that you agree that there will be a guaranteed 315,000 acre-feet for the park." They would have thought it was the greatest bargain in the world. Now we have another proposal where the corps is planning to add 2 more feet to the lake; and we are paying two-thirds, and they are paying one-third. Don't you think at this stage we could say, "for that 900,000 acre-feet that is being created here, we are going to ask for a guarantee of 315,000 acre-feet, or we aren't going to add the levee?"

Can we say that?

General CASSIDY. We have presented that requirement to the State of Florida. They do not agree.

We have presented a desire of a priority for the water for the park. The State does not agree.

Senator NELSON. Do they say they would rather not have the increase in the levee, and the balance of the Federal funds—

General CASSIDY. Let me add one thing. The increase in the lake storage capacity by 2 feet is underway right now. We have that under construction. There is an additional 4 feet to go on top of that.

Senator NELSON. That 4 feet will—

General CASSIDY. 1½ million acre-feet more, on top of the 2-foot rise.

In order to get water to the park, we need this storage in Lake Okeechobee. This is porous. We have a high evaporation here annually. This is a good place to store water (indicating).

There is very little, if any, lost through seepage from this area, so to provide additional water, we need this storage. We need to increase or take the humps out of these canals so we can move water south.

We have improved this, and this, and this (indicating) and all of this is designed to get water to the park, so we need this project.

Now, it is a joint project, and we have worked together to satisfy the needs of the water users, including the park. What the corps is saying is that at the present time we prefer not to raise this issue. We want to go ahead as we are proceeding so that we can satisfy the needs of the park. We cannot right now.

Senator NELSON. But that is the part I don't understand. We are going to have 2 feet, and that is underway, and we are going to put four more on top of it. What is the total acre-feet we are getting?

General CASSIDY. 2,700,000 acre-feet of storage.

Senator NELSON. So we are going to add 2,700,000 feet of available water on top of everything that is in Lake Okeechobee, and we still can't get Florida to agree that there will be a guarantee 315,000 acre-feet?

General CASSIDY. Sir, the people from Florida are here. I think you could ask the question of them.

Senator NELSON. I sure will. My own view is that we ought to stop the project. I don't want to give them any more money if they are going to take water from our park, or won't guarantee it. I think this is preposterous. We keep pouring money in there and saying, "Well, we won't reach agreement now, but wait until the crunch is on."

I know who is going to lose in the crunch. They will say, "Let the birds go." That is the end of the ball game. I think this Congress

ought to say, and the corps ought to say, "We don't add another foot to that dike with any Federal taxpayers' money until we get the guarantee of the water to that park." If we don't do that, we don't have a conservation policy in this country, in my view.

Mr. Secretary, did you ever see a copy of the questions and answers that the Central and South Florida Flood Control District presented?

Secretary TRAIN. I have not personally, sir.

Senator NELSON. I think I will put them in the record. (See pp. 69, 74.) The port authority's answers should show that there are just no adequate answers to the environmental answers raised by the jetport.

Senator NELSON. General, I am not blaming you for all this. I am blaming all of us. I think it is a disgrace.

I take it you weren't heading the corps in 1948; were you?

General CASSIDY. Not as the Chief at that time; no.

Senator NELSON. In 1948, the Corps of Engineers report to Congress on the southern and central flood control project, had this to say:

The plan of improvement has also been developed in full recognition of the importance of the Everglades National Park, which has been established at the southwestern tip of the Florida Peninsula. Release of water from conservation storage will assist in restoring and maintaining natural conditions in the park area, by reducing damage from drought and fire.

It said further:

In brief, it is believed that the comprehensive water control plan and the national park plan are complementary features of Federal activity necessary to restore and preserve the unique Everglades region.

Wouldn't you interpret that to be really a statement by the corps to the people of the United States and to the Congress that the investment the corps was putting in there, was to assure that adequate water was and would be supplied to the Everglades?

General CASSIDY. Yes, sir. May I read something else here about this adequate water supply? This is the comment of the Department of the Interior on our report. They concurred in our report.

Senator NELSON. You are talking about the 1948 report?

General CASSIDY. Yes. It says that it has been established so recently that time and resources have not been available to make studies, as to the best means by which the project may be made to contribute to the park.

In other words, at that time, we didn't have enough information on the needs of the park. The park had just gone through a period of drought, and had also been hit by two hurricanes, and we said that the project as it was envisioned would assist the park. I have two charts here; this is an accumulated rainfall from 1940 to 1951. In other words, our construction was becoming effective at this time.

This is the flow across the Tamiami Trail to the park.

This is rainfall from 1952 to 1963, and you will notice that the rainfall curves are almost similar, but this is the water supply to the park after the project became effective. Almost twice as much water to the park as before we started this project, because what we were doing—

Senator NELSON. What years were those?

General CASSIDY. The first chart is 1940 to 1951. The project was authorized in 1948, we began construction in 1949, and it began to be effective in 1951.

Here are the curves after the project came into effect.

The first thing we did when we started construction was that we put the levees down this side to stop the flow from these canals which had been built, and the normal flow of water is in a big curve down in this direction, and the boundary of the park was to be along this line [indicating].

The park was never able to acquire this land. But the design was to stop this water that was being wasted this way and to push it in the other direction, and by that chart, it can be seen that we were successful.

Now, we know more about the ecology of the park and its requirements. We know that there has to be a different distribution of water. When we say 315,000 acres feet annually, that must be directed in a natural cycle, and that is what we are working on now.

There is only about a year's carryover storage in the conservation areas because of evaporation and seepage. Therefore, we turned to Okeechobee for our main storage. This is the concept of this whole system, and particularly of the 1968 act, which was pointed specifically at the park, to move water down into the park area in quantities adequate for its survival.

Senator NELSON. My question is directed at the statement of the corps in 1948 and subsequently only to make the point that I think it was clearly the intent of Congress and the country in making these appropriations to be sure that out of it all the park got an adequate supply of water.

This is a letter dated June 14, 1968, signed by Gen. F. J. Clarke, Acting Chief of Engineers, which I will submit for the record, and from which I will quote one paragraph:

The concept expressed in the report and in the graphs is to provide a supply of water to the Everglades National Park that will not be diminished as the requirements to support growth and new development increase. Accordingly, under authority of the Secretary of the Army, the Chief of Engineers will insure the project is regulated to deliver the water requirements of the Everglades National Park as so set forth in the report.

(The document referred to follows:)

LETTER TO THE SECRETARY OF THE INTERIOR

DEPARTMENT OF THE ARMY,
OFFICE OF THE CHIEF OF ENGINEERS,
Washington, D.C., June 14, 1968.

HON. STEWART L. UDALL,
The Secretary of the Interior,
Washington, D.C.

DEAR MR. SECRETARY: By letter of 12 June 1968 the Assistant Secretary of the Interior stated that although the general objectives of the project and the purposes for which the project would be operated were acceptable, the Department requires further assurances in order to support the proposed modification of the Central and Southern Florida Flood Control Project. In particular, it was indicated that your Department cannot recommend the plan unless the Secretary of the Army assures you of future delivery of the water supply as set forth in the report undiminished by new incursions.

The concept expressed in the report and in the graphs is to provide a supply of water to the Everglades National Park that will not be diminished as the requirements to support growth and new development increase. Accordingly, under authority of the Secretary of the Army, the Chief of Engineers will insure the project is regulated to deliver the water requirements of the Everglades National Park as so set forth in the report.

I understand that the letter of 12 June 1968 constitutes the official comments of the Secretary of the Interior; the technical comments of the other Bureaus will be addressed in the advance engineering and design stage.

Copies of the letter from your Department and this reply will accompany the report of the Chief of Engineers when it is transmitted to Congress.

Sincerely yours,

F. J. CLARKE,
Major General, USA,
Acting Chief of Engineers.

COMMENTS OF THE DEPARTMENT OF THE INTERIOR

U.S. DEPARTMENT OF THE INTERIOR,
OFFICE OF THE SECRETARY,
Washington, D.C., June 12, 1968.

Lt. Gen. WILLIAM F. CASSIDY, U.S. Army,
Chief of Engineers, Department of the Army,
Washington, D.C.

DEAR GENERAL CASSIDY: We have reviewed the Martin County Report and the Water Resources Report for Central and Southern Florida and concur in the principal features of the project and the proposed operation of the plan. We have also compared it with the National Park Service letter of October 20, 1967 by Deputy Director H. L. Bill. (Appendix K, Exhibit K-11). In that letter we stated in part, that:

"* * * the park shares adversity whenever the supply of water is insufficient to provide 315,000 acre-feet * * *. To share further adversity requires that we restrict that sharing with contemporaneous water demands. * * * The National Park Service, therefore, cannot accede to sharing water shortages with demands that develop after the establishment of the park. * * *"

In our October 20 letter, we noted that when our comments appeared in House Document 643, we expressed "concern over the lack of a guarantee of sufficient water." Continuing in that letter we said:

"Problems that have remained unresolved in the past must be resolved with specific clarity. The obligation of the Corps to supply the water necessary to preserve and restore the park, as stated in 1948, must be given strong emphasis in the current report. The report must claim water for the park as a Federal project purpose and establish a priority right to a given quantity of water from the project. Otherwise, the needs of the park will continue to be valued relative to all other project needs. * * *"

We are pleased to see that the report recognizes that furnishing water to the Everglades National Park is a Federal purpose of the project. The report of the Board of Engineers for Rivers and Harbors provides additional clarity in designating 315,000 acre-feet per annum would be available for the Federal requirements in Everglades National Park in addition to providing supplemental supplies of water during times of flood. These supplies are recognized in the report as Federal project purposes and objectives. These are seen as desirable features, but there does remain, however, a major deficiency in the report in that it fails to clearly and unequivocally establish that the basic water supply to the park will be unaffected by reductions caused by future demands of urban and agricultural growth. As we noted above, the basic supply to the park must not be diminished if this park is to survive. We, therefore, cannot recommend the plan without written assurance by the Secretary of the Army that he will provide the water supplies as set forth in the report, undiminished by new incursions.

Technical comments, including comments of other Bureaus of this Department, will follow.

Sincerely yours,

STANLEY A. CAIN,
Assistant Secretary of the Interior.

U.S. DEPARTMENT OF THE INTERIOR,
OFFICE OF THE SECRETARY,
Washington, D.C., July 25, 1968.

Lt. Gen. WILLIAM F. CASSIDY,
Chief of Engineers
Department of the Army
Washington, D.C.

DEAR GENERAL CASSIDY: This supplements our recent exchange on the Martin County Plan and the Water Resources Plan of the Central and Southern Florida Flood Control Project.

We noted in our June 12 letter: "Technical comments, including comments of other Bureaus of this Department will follow." Acting Chief of Engineers Major General F. J. Clarke, in his letter of June 14, acknowledged that these technical comments will be addressed in the advance engineering and design stage. Through previous discussion and by our letter of May 1 to the Chairman, Board of Engineers for Rivers and Harbors from the Deputy Director, National Park Service, most of these comments are already known to the Corps of Engineers. Our May 1 letter, in addition to stating our views on the report, provides comments which require consideration in the post-authorization, preconstruction planning and design stages of the Martin County Plan and Water Resources Plan of the Central and Southern Florida Flood Control Project. That letter should be considered together with comments presented here.

The second part of the recommendation contained in your report on the Martin County Plan regarding the deferral of the irrigation features until "the Chief of Engineers is assured adequate water is available" can, in the context presented, be satisfied by the authorization of the Water Resources Plan. It is our view that construction should be deferred until sufficient works have been constructed under the two plans to demonstrate that water for irrigation purposes in Martin County can be made available without causing reductions in the Park's basic water supply. This position was indicated in our May 1 letter; it has been discussed with members of your staff who indicate that the view we have expressed was, indeed, the one which was intended.

The backpumping plan and the raising of the level of Lake Okeechobee will result in a greater amount of water being available to the entire area. These measures will reduce the amount of water dumped directly to the sea with a consequent betterment of the estuaries in which this dumping has been taking place. However, because much of this conserved water will be the drainage from nutrient-rich agricultural lands, the backpumping may have significant effects on the regional ecology, especially at Lake Okeechobee and the conservation areas. The Fish and Wildlife Service and the Federal Water Pollution Control Administration should be provided opportunities to study these aspects of the project to assure the integrity of the lakes and other areas.

This, coupled with the need for reassessment of the plans in 1980, indicate the need for continuing hydrologic studies and expansion of the monitoring system. The plans are concerned largely with the routing of surface waters with only minor consideration of the changing quality and little consideration of ground water which is an integral part of the total water resource. As the growing demands for water approach the limit of supply, it will be necessary to manage this total resource and hydrologic data not now in existence will be required.

The establishment of a water-quality monitoring system to appraise changes in level of pesticides, nutrients, organic materials, and other elements is essential. Expansion of the present hydrologic data collection system is also necessary along with concurrent hydrologic and ecologic studies to assure that undesirable side effects do not develop.

Water quality standards for the State of Florida are now under review in the Department of the Interior. When approved, these standards should provide guidance as to control levels to be met in the operation of the project.

The need for further studies is recognized and we recommend that public values of outdoor recreation resources of the project area be considered in the studies. Such studies should be integrated with the continuing hydrobiological investigations. Information obtained from these studies should aid in establishing a system of priorities for uses of project waters in which outdoor recreation is given proper consideration.

The recreation and fish and wildlife developments proposed for the projects are generally in accord with the objectives of the comprehensive outdoor recreation plan for the State of Florida.

These comments, as well as those in our May 1 letter, and the comments of Bureaus of this Department appearing in the appendices of the two reports, should be given careful consideration and reviewed with representatives of Bureaus of this Department at the appropriate time during the preconstruction design and planning phase. None of the comments, however, require reply at this time.

This opportunity to provide these comments is very much appreciated.

Sincerely yours,

STANLEY A. CAIN,

Assistant Secretary of the Interior.

Senator NELSON. I just am puzzled as to why we can't settle quickly, the guarantee in perpetuity, when we are creating all this additional water storage, and using a substantial amount of Federal money to do it, and Florida says, "We won't agree to guarantee 315,000 acre-feet."

I just say if that is the case, General, I will go to the floor of the Senate, and do everything I can to stop the appropriation, and I think I can get some conservationists to help. It is such a ridiculous position for Florida to take, that I don't think we ought to spend another nickel of Federal money on the project until they agree to a guarantee.

That is my opinion. I don't expect you to agree or disagree with it.

I want to thank you very much, General, and Mr. Secretary. I am most pleased, as I know all conservationists are, over your concern about preserving this area. Thank you for coming here this morning.

We will recess until 2 p.m.

(Whereupon, at 12:50 p.m., a recess was taken until 2 p.m. of the same day.)

AFTER RECESS

(The committee reconvened at 2:05 p.m., Senator Henry M. Jackson, chairman of the committee, presiding.)

The CHAIRMAN. The committee will come to order.

Our first witness this afternoon is Mr. Nathaniel Reed, special assistant to the Governor of Florida, Governor Kirk. Mr. Reed, we are delighted to have you. Do you have a prepared statement?

STATEMENT OF NATHANIEL REED, SPECIAL ASSISTANT TO HON. CLAUDE R. KIRK, JR., GOVERNOR, STATE OF FLORIDA

Mr. REED. I have, sir.

Senator Jackson, it is a pleasure to be here today.

My name is Nathaniel Pryor Reed. I am the special assistant to the Governor of Florida for natural resources. It has been my pleasure to serve Governor Kirk since his inauguration. The Governor regrets his inability to be here today and wishes to convey to the distinguished members of this committee his interest and commitment to the preservation of the Everglades National Park.

At the outset let me say that solution of problems dealing with Everglades National Park has been in the forefront of the many issues which our administration is tackling in our rapidly growing State.

The park was acquired to preserve an example of a fascinating ecosystem which is unique in the world. The long, tilting Florida

peninsula produced a shallow flood plain emanating from Lake Okeechobee, flowing southwest to the Gulf of Mexico. The slope is imperceptible, approximately 1 inch to the mile. Many features about Everglades National Park were not understood at the time of the park's boundary decisions. The park is incomplete, lacking a source of water, yet water is the lifeblood of the park. The park was built inch by inch from the deposits of a sheet of water which covered the area south of Lake Okeechobee. The ecosystem that was formed is the product of centuries of annual droughts and floods.

South Florida is unlike any other part of the United States. The rainfall pattern is totally different. It is difficult for citizens living in States which have balanced rainfall to comprehend the great variances which are normal in south Florida. I have known the land to burn during an 80-day drought and I have seen 25 inches of rain in 1 week. These extremes occurred during the same year, separated in time by less than 60 days.

The Central and Southern Florida Flood Control District was designed to protect the east coast cities from floods and to provide water supplies for domestic and agricultural use. The Corps of Engineers, in my opinion, succeeded in producing a system which admirably protects south Florida from flood. This is a vital responsibility which was hard to accomplish. The network of drainage canals is a major effort in attempting to provide an adequate water supply for agricultural growth and the rapid expansion of the urban megalopolis which is stretching from south Miami to Palm Beach and which will continue to rapidly grow north up the coast.

Florida is an important agricultural State. The area surrounding Lake Okeechobee is our most productive and most important farming area. The soil is a fine, dust-like muck, which was formed by the decay of sawgrass over thousands of years. It is among the most fertile land in the world.

Yet, this is a hostile environment. The land is cold. Every bug known to man thrives. All of the disasters which threaten farmers elsewhere are even more common in this particular area. It would seem that, although God made this rich land, he exacted a great price from those who are men enough to farm it. The men who work this land are proud, strong, courageous, and fiercely independent. They are resilient men, tough and tried. Only the strongest survive. They have a common bond. It is water. Without quantities of water, the normal risks become unbearable. Lake Okeechobee is their lifeline.

Great citrus farms and ranches with thousands of acres of improved pasture have developed around the water supply. The headwaters of Lake Okeechobee, the Kissimmee Valley, are now fully developed. The river has been dredged into a canal to drain the surrounding uplands to prevent flooding.

The Caloosahatchee River flowing to the west has been dredged and made into a canal to take the seasonal excesses of Lake Okeechobee quickly to the sea and to provide drinking water for the rapidly growing west coast area. Agricultural and ranch development have occurred on the Caloosahatchee's banks, all requiring water.

Our entire economy, our very lives, sir, are dependent on the vagaries of the rainy season, which fills our reservoir, Lake Okeechobee. The Corps of Engineers has clearly defined Lake Okeechobee as the only major storage area in south Florida. The other conservation pools face identical problems: evaporation, transpiration, and porosity.

For all intents and purposes, the lake is the logical and sensible water storage area.

Over the years since the establishment of Everglades National Park, the yearly water crises have been legion. The normally dry winters produce little rain, the lake must satisfy all water-users, men and nature's. This is the riddle. There is usually an excess of water in the summer and fall, but there is a need for water by all users simultaneously during the dry winter months.

The normal demands of man on the south Florida ecology have changed, perhaps forever, the ecosystem which is known as Everglades. This odd flood plain is easily interfered with, easily encroached on, but unless the Federal or State Government bought all of south Florida, there would have never been any guarantee that the ecosystem would have remained unimpaired.

What has to be recognized is that the development of south Florida is dependent on the flood control district and the Corps of Engineers. Recognizing that any interference with the Everglades water system would unquestionably alter the ecosystem, what options are still available? A very real question is whether the ecosystem which is the national park can survive. I believe it can. Perhaps not as it was, but as an example of what is was.

Recognizing that water is the lifeblood of the park, is there any way of insuring that the park receives adequate monthly supplies in accordance with its traditional and historic pattern?

The Congress and the Nation must realize that an adequate water supply can only be stored in Lake Okeechobee. The sooner the levees are raised, the sooner additional millions of acre-feet of water will be made available for use. The key question remains, who can guarantee the park its requested 315,000 acre-feet of water per year?

The State's position is that it cannot guarantee water to any water-user. Drought being a frequent visitor, the State government has attempted to manage its water resources in such a fashion that all users would receive water when there was water and share adversity on an informal basis during drought.

Man is priority No. 1, and his activities, such as farming and ranching, are No. 2, and somewhere along the line sufficient water will be made available for the park to tide it over the hump until the spring rains begin again. Remember, drought is a normal part of Everglades life and history. The State cannot guarantee water when our water comes from capricious rainfall. If the levees are raised to supply all of south Florida with the badly needed water it must have in order to grow, by the use of Federal funds, your question might be, why cannot the State then guarantee the Federal park a share of the water?

The proposed jetport highlighted and accelerated the problem. For years competent biologists and ecologists have wondered what would happen to the park if the peripheral Big Cypress lands were ultimately developed. Due to the money squeeze, the problem remained insoluble. In my opinion, the park cannot be saved for future generations if the Big Cypress is allowed to be developed.

Even "planned development" will surely wreck havoc with the water route. I recognize man's ability to plan, but I mistrust his ability to execute. The State is at this moment preparing to form a tri-county, hopefully to be enlarged into a nine-county, planning effort, to discover what steps can be taken to manage the projected growth in

this last wilderness in the eastern United States where draglines and bulldozers could forever end the dream of preserving the park.

Time is running against the park. If it is to be saved and preserved, some of the following steps must be taken immediately:

1. Money must be appropriated to purchase the inholdings in the present park. The inholdings are a national disgrace. Thousands of acres of land are being farmed, other areas in the northwest extension are being destroyed by developers. If the American people fully understood that thousands of acres of their beloved park were still in private hands, they would insist on the completion of the purchase.

2. The proposed jetport must not be allowed to destroy the great feeling of quiet wilderness that is a hallmark of the park. Noise, water, and air pollution are very real threats to the park. If studies indicate that a major jetport's pollution problems are insoluble, then the proposed jetport should be removed.

The State and Federal Government must promptly recognize that the Big Cypress represents a valuable wilderness. It is the headwaters to the northwest extension of the park, and a vital area for providing water supplies for the fast-growing southwest coast of Florida. It must be preserved by prompt acquisition.

3. The Corps of Engineers' recent recommendations must be carried out. Back-pumping from the east coast canals, and the eventual raising of Lake Okeechobee's dikes must be funded.

4. Contingent on the completion of these vital works, there should be the stipulation that Florida must recognize that she is the guardian of this national treasurehouse, and must protect it with an acceptable water delivery schedule.

5. Avenues of communication between the State of Florida and the Department of Interior should never again be allowed to degenerate to the deplorable depths which existed 3 years ago.

As both sides were at fault, it is incumbent on both sides to make every effort to effect a logical and legitimate settlement. Much of the bitterness has been overcome during the past 3 years by the superb work of Robert Padrick, chairman of the Central and Southern Florida Flood Control District. He has made a great gift to his State and his Nation. He has given thousands of hours of painstaking work and effort in an attempt to do right for all Americans. His efforts have been matched by members of the National Park Service staff, Mr. Manuel Morris in particular, who has represented the Department of Interior with the highest distinction.

If the Everglades are to remain the great wilderness park of America, and as an example to the world that wilderness can be maintained in this challenging century, this committee will have to persuade the Congress, the Department of Interior, the State of Florida, and the President of the United States to take action promptly.

Thank you for the opportunity to appear before you.

The CHAIRMAN. Thank you, Mr. Reed, for a very helpful statement.

You make it quite clear, of course, that the State of Florida cannot or will not guarantee the water for the park.

Mr. REED. The problem with the word "guarantee," Senator, is that if we do not have the water, it is difficult to give a meaningful guarantee.

The expressions this morning seemed to indicate that the water in the lake is available. There is space inside the dike, but there is often no water.

The CHAIRMAN. I suppose I should have asked this of General Cassidy.

Mr. REED. Yes, sir.

The CHAIRMAN. We are getting into an engineering problem, but I assume you have the information.

To what extent could we increase the available water storage if you built the levees around Lake Okeechobee and in other areas where storage could be provided?

The flat terrain of Florida causes a problem here, I take it, in trying to provide the water to balance the dry cycles for which you have to compensate.

Could you comment on that?

Mr. REED. Yes, sir. I would prefer to wait on my comments until Mr. Robert Padrick, the chairman of the agency responsible for maintaining Florida's water supply in south Florida, gives you the benefit of his presentation, which will answer some of your questions. I would be more than willing to answer with him any other questions we can at the conclusion of his remarks, sir.

The CHAIRMAN. You have indicated the order of priority here. People have to have water to live, and then you mention farming, and then you hope there is something left over for the park. This is the problem that we are struggling with.

Mr. REED. This is exactly the problem, sir.

The CHAIRMAN. But we will wait to get the specific information on the availability of water.

Do you have any indication as to the cost of acquiring Big Cypress to protect that area? Have there been any estimates on that?

Mr. REED. I would give you, off the top of my head, approximately 100,000 acres of wilderness in Big Cypress presently is available. The jetport authority has been successful in condemning lands for approximately \$100 an acre.

The CHAIRMAN. That is \$60 million?

Mr. REED. That is correct, sir.

The CHAIRMAN. I was interested in your comment with reference to the efforts of the State government to form a tricounty entity, and possibly a nine-county entity. It is quite obvious, as I mentioned this morning, and Secretary Train also alluded to it, the problem the local governments have in trying to deal with environmental affairs. Much of the problem stems from the fractionation of governmental planning and land-use management authority at the local level.

Although we have a problem of water right now, it is not as immediate as the jetport situation. I think, basically, this problem relates directly to the need for proper regional planning on the part of State government.

What chances are there of getting legislation through the legislature to provide for planning on a regional basis, instead of this localized and internecine type of land-use conflict that goes on. I made it clear this morning that I am not singling out Florida. These conflicts can occur between the counties, or between a county and the city, or vice versa, or some other governmental entity, like the port authority. We have those governmental entities in all the States.

Mr. REED. The legislature is, hopefully, in its last week of the session, and passed in the senate is a bill which would encourage multicounty regional park development.

Actually, we have a chapter in the Florida statutes now, even if we do not get this new piece of legislation, which would allow us to produce an acceptable planning effort. I just have my grave doubts, sir, as to whether it will stand the test of time and whether we can take the chance.

The CHAIRMAN. There is a limit here, which was brought out this morning, as to what the Federal Government can do regarding the jet airport. There are certain things that can be done but, basically, this is a matter for local government, except as to denial of Federal funds to assist in the construction. We get right down to the nitty-gritty here by saying, "What can the State of Florida, either through the State government or through the county governments, do about the problem we are immediately confronted with—the jetport situation?"

Mr. REED. The State can do very little. The port authority raised the money through a bond issue. It is a very lucrative operation, the Dade County Port Authority.

The CHAIRMAN. But isn't the port authority a creature of the State?

Mr. REED. It is a creature of Dade County. The county commissioners of Dade County are the Dade County Port Authority.

The CHAIRMAN. The county commissioners are creatures of the State. Their authority stems from the State.

What can the State government do to provide a more orderly procedure in meeting the long-term requirements of a large metropolitan area like Miami?

Mr. REED. That is the key question.

The CHAIRMAN. That is the heart of the problem here. We are concerned immediately with a jetport, and at this level we are trying to establish for the first time a policy, as I indicated when I mentioned the bill that Senator Nelson is cosponsoring with me, to provide a statutory policy at the Federal level on the environment.

Now, what is the State of Florida doing at the State level to provide a similar policy? I would also ask that same question of the other 49 States.

If the States do not do that, then we can't succeed at the Federal level. This whole problem of the environment is a Federal and State challenge, and the Federal Government can do a pretty good job to a certain point. However, if we do not get the cooperation of the States, then any large effort that we make, as, for example, requiring Federal agencies that are to build a given structure to meet certain requirements, could be completely overcome by contrary action or by inaction at the State level.

By "State," I am not singling out the State of Florida. I am talking about State government generally, because it is the fountainhead of authority to all of these governmental entities. So the immediate problem that we are concerned with, the jetport, is primarily a State problem.

Mr. REED. Very definitely, sir. Unfortunately, when the port authority picked this location, to my knowledge they made no serious effort to bring the agencies of conservation in the State of Florida into any depth of consideration on this site. If they had, I would be willing to say that other sites with less ecological impact could have

been found. I can think of at least two, and possibly more, but before we knew it, sir, that field was there.

The CHAIRMAN. There is an area north of the park which might be suitable for a jetport. I believe it is Broward County.

Mr. REED. Broward County, sir.

The CHAIRMAN. Broward County refused to have any part of it, because they didn't want to be an annex to Dade County.

Mr. REED. I believe the problem, sir, was on fees. That part has been not very publicly discussed. It was on landing fees, sir.

The CHAIRMAN. Landing fees? That is on State-owned land.

Mr. REED. Yes; but the question was on the sharing of the landing fees.

The CHAIRMAN. Go ahead.

Senator NELSON. Are we talking about what I understand to be State-owned property north of conservation area 3?

Mr. REED. Yes, sir. That is called conservation area 2-B.

Senator NELSON. Immediately above area 3?

Mr. REED. You are talking about in the agricultural area in Palm Beach County. That area is in Palm Beach County.

Would you also point out 2-B? That is directly west of Fort Lauderdale. The northernmost one is in Palm Beach County, sir.

Senator NELSON. The one immediately north of conservation area 3, isn't that where the State-owned land is?

Mr. REED. Yes, sir. The State owns land in both areas.

Senator NELSON. How much land?

Mr. REED. I would have to ask the flood control district to give me a broad outline. I looked at a map, and the State has extensive land.

The State owns 40 square miles in conservation area 2-B, and the State owns a lot of land south of the agricultural land in Palm Beach County.

Senator NELSON. If the port authority wanted to build on the State lands and the State was willing, the county wouldn't have any jurisdiction, would they?

Mr. REED. The only problem on this was—I prefer someone from the Dade County Port Authority, and Mr. Gibbs is here. Unfortunately, none of their directors or members are here, which I deeply regret, to tell you. I would like to hear it myself. I cannot seemingly get the story straight, sir, what other options were available to them.

Senator NELSON. But if the State agreed that the airport could go on State lands, is there any legal power in the hands of the county?

Mr. REED. Perhaps on landing fees, sir. I am not sure what the law is on that. I suppose not, but I don't know that to be a fact, Senator Nelson. There is a problem on landing fees that I am not up to on their law.

The CHAIRMAN. Mr. Reed, I am just trying to make the point here—I hope I am making it—that there is a tremendous responsibility on the States to provide the proper kind of up-to-date governmental mechanisms to provide for long-term land use planning. It is necessary to make decisions based on that planning so that we can avoid the kind of environmental mess that we find ourselves in throughout this country.

Mr. REED. Senator, I would agree with you. The problem of being the third-fastest-growing area in America is that our battles are daily and weekly, and we have very little time to plan ahead, because we have a saving battle that takes place every day of every week.

The CHAIRMAN. Isn't there one lesson here and this is true in my own State, that somehow we must break down county and city barriers so that we can develop new responsible entities on a regional basis to deal with what are in fact regional problems? It isn't just a county or city problem, but rather a regional problem within a State that we are really talking about in this instance. The most difficult environmental problems that we find ourselves in invariably regional planning and regional decisionmaking in which all relevant values are considered and in which all interested parties may participate.

The cities say they can't do it. The counties say they can't do it. Consequently, we find none of them doing it. Do you see what I mean?

Mr. REED. Yes, sir.

Mr. Roy Wood, of the Bureau of Outdoor Recreation, proposed a nine-county planning unit. Again, as a planning effort, it is a brilliant idea, and I am sure that the Governor and the rest of the board of conservation heartily support it. Historically, I cannot find many examples where it has worked.

The CHAIRMAN. Well, it is voluntary. You can't really get very far dealing with a loose federation of nine counties with nine different points of view. It is high time that we start updating governmental structure at the local level. The county system of government goes back to the mother country in England, and there have been few changes since that time. We have to find new structures at the local level, not just for planning, but for management and operating purposes.

Mr. REED. I would agree with you, sir.

The CHAIRMAN. As you know, all this talk about "State rights" that we hear over and over again is now being put to the test. There is one alternative that I am not sure I would like to see occur; namely, that the Federal Government lay down standards to the States and say, "You are not going to get Federal money of any kind until you come up with an acceptable long-term land-use proposal."

That wouldn't be the right way to approach it, because under our Constitution the exercise of police powers relates to the States, as it deals with matters within the State. But my point is we have already done this. We have required the cities and counties to meet certain planning requirements as a condition precedent to obtaining funds. But this wouldn't be necessary if the States would exercise their responsibility in these areas. We are always being criticized here that we are trying to federalize everything, but the truth is that most States, because of local political considerations, are unable to get through the legislature changes in city structure, county structure, and so on, to deal with the problems facing this country.

Isn't this a fact?

Mr. REED. Yes, sir. In Florida, there is a difference. We are one of the few States that has passed a new constitution. We are in the process of reorganizing the State of Florida's government, and we should know within a week what new agencies have been formed from the multitude of agencies that are now being condensed to 25. It will take, obviously, a year for consolidation and proper management on these 25 new agencies. From that, hopefully, will come some of the impetus and direction that you have spoken about.

Nevertheless, in a State that is growing as rapidly as the State of Florida, the challenges are colossal, and I believe the policies could

be the solution, but I fear the ineptness of man to hold onto that concept.

The CHAIRMAN. I have found by experience that the Federal Government can set up Federal conservation sanctuaries. I am talking about open spaces, national parks, recreational areas, and wilderness areas, but, at the same time, I find that the States are unable to provide for sanctuaries for industrial and commercial development.

In other words, they are not able to tell industry, as an illustration, where they can locate. The only way they can find out is to go into the courts and litigate for years.

I find that, for the most part, land-use policies are not to be found in the States. You can't find a basic land-use policy. You will find that the county will have one kind of a plan, the city another, and some other government entity another. I am wondering if we are not approaching the time where we are going to have to pass some rather drastic Federal legislation which will compel the States to do something about land-use planning and management as a condition precedent to obtaining Federal funds.

I question whether the States can really face up to the archaic governmental structure at the local level as a means of taking effective action on proper land-use policies. I really question it. I understand the Governor's problems. I know all the county people get together and take one position, all of the city people go to the State legislature with another position, and the port people with another position, and so on down the line. The result is an impasse; and in the meantime, we find the No. 1 problem in many, many respects relates to the inadequacy of local governmental tools to cope with the situation.

The Everglades is a classic case. I don't think the jetport problem, if it were handled right at the local level, would be with us now. I think they went out and looked at other areas, and found they couldn't get cooperation from the other counties. Because they couldn't get cooperation from other counties, I believe they simply decided to locate where they have now started construction on this jetport—adjacent to the Everglades National Park.

This could have been avoided, in my judgment, if we had adequate governmental tools at the local level. That is all I have to say on it. I am pretty discouraged, because I think the Federal Government can move faster and more effectively in modernizing its governmental structures. We are doing that now, and have been doing it gradually.

You don't disagree with that, do you?

Mr. REED. I don't. After seeing the legislature over the last 60 days, I see the hopeless confusion which reigns in our State.

The CHAIRMAN. Under our Constitution, the States have most of the authority in this case. The only authority we can exercise is an indirect authority, to use the powers of the pursestrings to deny funds to a State that has not met a proper Federal plan.

This means that the Federal Government is going to be heavily involved in what is nothing more than local zoning, and I would hate to see that. I would like to see a resolution of this problem at the local level done voluntarily, because, after all, the people locally should know better than anyone else what their requirements are and what needs to be done.

Mr. REED. The best plan of zoning is the acquisition of open space. There is nothing better in the world. Florida is lucky to have such an

enormous holding of Everglades, which is used daily by thousands of people.

We have the Ocala National Forest, Cape Kennedy, and farther up the Suwannee River, and the great State forests of Florida, and the public forests, which are owned by great timber companies. All are open to the public.

We are very, very fortunate to have so much open space in the State. We are blessed with a million-plus acres that the State owns in the Everglades. It is one of the extraordinary attributes that we have.

This is the same problem that faces us in the Big Cypress area. If people live there, I don't know what will happen to the future of Florida.

The CHAIRMAN. That is all the more reason, however, why the State should act in concert to protect these Federal and State resources—

Mr. REED. Oh, I agree with you. The problem, again, is acquisition money. We are one of the States that return to the Federal Treasury more money than we receive back. The money problem is terrific in Florida right now. With our new constitution putting a ceiling on what the villages and counties can tax we are in a very serious tax bind in our State.

The CHAIRMAN. Senator Nelson?

Senator NELSON. I was pleased to hear your expression of concern about the preservation of the park, and I certainly agree with you.

One reservation I would have, or a disagreement I have with your statement, is on the question of guaranteeing water. I don't suppose you have the statistics on the water level of Lake Okeechobee—

Mr. REED. Mr. Padrick and his staff are here. I am sure they will be able to furnish you almost any water figures that you would like to know.

Senator NELSON. My view of it is from your statement, if it is to be the policy that man comes first, agriculture second, and the park after that, then ultimately the park is destroyed. If that is the policy, the question is, then, only in what year.

Mr. REED. No, sir; I wouldn't agree with you entirely, because, if I could hold off until the conclusion of Mr. Padrick's remarks, I would like to explain to you the new proposed schedule of water delivery to the park. I think, after hearing about that schedule, you will discover that the only time the park will be short of water is when everybody will be short of water. In other words, the park will share the adversity of the others.

Senator NELSON. I don't really see, in fact, how it can work that way. If the policy is that man comes first, and agriculture second, and the park third, that is not an equal formula for sharing water. In fact it would be impossible for man to protect the park with, especially if you develop a community of possibly 1 million people around the new jetport.

When there is a water shortage, part of every ounce of water must go to supply the city around the jetport, or whatever else.

Mr. REED. I understand what your point is, sir. I discussed this with people from the Interior Department for weeks. There is nothing that I personally would rather give you than a written guarantee of 315,000 acre-feet of water a year, but I also know, after living in Florida for 30 years, that it is darn near impossible to do.

We can give you a written guarantee that we will give you 315,000 acre-feet of water for the park every year that the water is above a

certain stage in the lake, but you are going to have, because of the vagaries of the Florida climate, an occasional year where we are not going to be able to meet that guarantee. We may not be able to meet it for man as well. This is one of the problems. Our rainfall differences are so colossal that the word "guarantee" is a great problems.

We can give you assurances. We have given assurances in the last 2 years, and we propose a new schedule, which historically, by graph, will show you that we will miss but a very few times in the next 30 years the delivery of 315,000 acre-feet.

Inside the dike of Lake Okeechobee, what General Cassidy missed this morning, is the fact that it isn't always full, sir. It is very rarely full. There is air in there.

Senator NELSON. But we are proceeding here to authorize construction of a dike that would hold an additional 2.7 million acre-feet.

Mr. REED. If we got it. That is the problem. It is a hope that, in years to come, we will receive sufficient rainfall to fill this, but there is no assurance that it will happen immediately.

Senator NELSON. I was going to say that I hoped you would get it built. I realize that the water is just a hope. But the point I am trying to get at here is this: If the priority is man first, meaning cities and communities, and agriculture second then you can't share the water. It just won't work.

Do you give 100,000 acre-feet in a very bad year to a park and deprive the city of 100,000 necessary acre-feet of water? No. Yet that is just the way it will work, and the argument will be, "Well, we have got all those people there."

The reason people go is because there is water. If there wasn't any water, they couldn't go there. So we are spending money to create a bigger water capacity, and then more people will go there.

If you don't have the water, you can't have a quarter of a million, or half a million, or a million people around the jetport. With that population you will be drawing on the park's 315,000 acre-feet every time you are short. You won't be drawing against the farmer first or the city first. You will be drawing against the park.

Then after you have used all the park water and there isn't enough, then you stop sprinkling the lawns.

Mr. REED. In theory, of course, that is correct. In practice, it doesn't really work that way, even in our driest years, the last 3 years. We have been able to provide water for Everglades National Park, because you can manipulate the system to give that additional water, and we hope with the back pumping and the raising of the dikes that we would be able to manipulate the system.

The eventual question remains, "How do you prevent the growth of the south area of Florida?" Eastern laws are not like the Western water laws. We have very few laws in the Eastern States that would prohibit a user from using water.

Senator NELSON. I am the only member of this committee from east of the Mississippi. We can establish law on it by simply reaching an agreement.

I wouldn't be happy with assurances that may work for 5 years or 10 years. One way you control development, of course, is regulating the availability of resources. You can't grow unless there is water, and every time we add to the capacity of the lake, assuming it fills up, more people will build houses, and the county will grow, and then there

will be future demands on that water which will take priority over the park.

What I am saying is that we know now that the park needs about 315,000 acre-feet annually. We must say that this will have a priority which is equal to all others, among the water users that are there today.

If some year in the future you only have 950,000 acre-feet, all users existing at the time of the agreement will share in the adversity.

Otherwise, the park has no protection. If there isn't such a guarantee, I will offer amendments on the floor of the Senate to postpone any further construction on the project until some agreement with a guarantee is put in writing and is adopted. I would think that this is what the country will insist upon.

We shouldn't be spending money to guarantee the future growth of Florida vis-a-vis the relatively modest demand of the park of 315,000 acre-feet. I don't want to spend any more money to provide over 2 million acre-feet without a provision for the park.

Mr. REED. I understand you, Senator.

Let me correct one misunderstanding from this morning. The State of Florida, the Department of the Interior, and the Corps of Engineers have never sat down to discuss this problem.

Senator NELSON. They never have?

Mr. REED. No, sir. Only at informal staff levels have these conversations been carried out. I speak for the Governor of the State of Florida in saying we would welcome such an exchange.

You would find that it would be difficult for the State to give an ironclad guarantee, but I believe there are assurances that can be worked out, especially when the Department of the Interior sees from the projections that the water supply is in much better shape than we thought, and if properly managed we can make great strides in this direction.

I was looking at comments from the State of Florida, sir, which were in the water resources report for central and southern Florida of last July 30, 1968, a letter from the Secretary of the Army, and I found this letter, which I think is most important, and with your permission, sir, I would like to read it into the record. It is to General Cassidy from the Governor of Florida, dated May 23, 1968:

Thank you for your letter of May 14th. I wish to compliment your staff for the outstanding job of collecting, collating and translating the enormous quantity of information necessary to this vital study and report. It is incumbent upon me as Governor to comment on this plan which is so important to the continued growth and prosperity of our citizens.

The Central and Southern Florida Flood Control Project designed more than 20 years ago needs to be reengineered and updated to take full advantage of all water conservation aspects and to provide maximum flexibility in order to meet the expanded needs of the region. The necessity of improving retention of water during successive drought years is obvious. Everglades National Park is recognized as a legitimate water user.

The park's water needs are estimated in excess of 315,000 acre-feet per year. As water is the lifeblood of the park, the need cannot be overstated.

It is recognized that the Everglades National Park is unique and it cannot be duplicated and that it only exists in south Florida. No monetary value can be placed on an ecosystem unlike any other in the world.

Florida accepts the responsibility of guarding this treasure for generations unborn. Authorization of the Corps of Engineers study is vital to the park and our citizens, whose livelihoods depend upon the Central and Southern Florida Flood Control District.

I think, starting from that point, an agreement can be reached, sir, meaningful to both the National Government and the State of Florida.

Senator NELSON. I think that is a fine statement by the Governor, and I am pleased to hear you say that. I would make just one additional comment, and that is that I think the Congress ought to have a look at the proposed agreement before it is put into effect.

Mr. REED. I would always want the Congress to be aware of any agreement, sir, definitely.

Senator NELSON. I think at least the Senate and House Interior Committees should have a look at it, because some of us might not necessarily agree with the structuring of the agreement. But at least as far as I am concerned, there has to be an agreement, or I will oppose further project construction.

Thank you very much. We appreciate your coming.

Mr. REED. Thank you, sir.

Senator NELSON. Our next witness is Mr. Robert Padrick, chairman of the Central and Southern Florida Flood Control District.

STATEMENT OF ROBERT PADRICK, CHAIRMAN, CENTRAL AND SOUTHERN FLORIDA FLOOD CONTROL DISTRICT

Mr. PADRICK. Thank you, Senator. I am Robert W. Padrick, chairman of the governing board of the Central and Southern Florida Flood Control District. The district is the State agency responsible for local cooperation in the construction and subsequent operation of the water management project first authorized for Florida by the Congress in 1946.

The peninsula of Florida and, in particular, the Everglades have experienced both flood and drought in recurring cycles ever since pre-historic times. The problems we have with water stem directly from rainfall, or lack of it. In a normal year we get about 58 to 60 inches of rain. But 70 percent of the year's total occurs, typically, in the months from May to October. Heavy concentrated rainfall on the extremely flat landscape has caused widespread sheet flooding year after year. But in dry months, when the water table subsides, we have had droughts, and even fires.

From the beginning our district has sought to achieve water conservation and water supply benefits, as well as to provide major drainage. The architects of the Federal-State project had much foresight in this regard. And in recent years we have been trying to increase the multipurpose benefits of total water management.

Unfortunately we cannot control rainfall, which is the key to our water supplies. There is a wide variation in the annual amounts of rain. It is not uncommon to have more than 80 inches one year, and no more than 45 inches another year. During dry seasons, we frequently have periods of 60 to 70 days with little or no rain. Our water storage areas are extremely shallow because of the nature of the terrain.

We also experience heavy losses from evaporation and transpiration. Movement of water is very sluggish at best. Many times the way that water flows in the Everglades actually depends on the way the wind is blowing.

I would like to tell you briefly something about our water problems, the actions that we have taken to preserve the integrity of the Florida

Everglades, the steps that have been initiated to improve water supplies and the role we have played in regard to the jetport, the proposed transportation corridor—including Interstate 75—and the effects on the natural values of south Florida.

When I was appointed to the governing board of the district in 1965, I inherited a number of major problems. Southern Florida was in the grip of the worst drought in recorded history. We had experienced 4 consecutive years of subnormal rainfall. Our project was less than 50-percent completed. Many drought-fighting features, such as raising of the water level in Lake Okeechobee have still not been realized due to lack of Federal funds for construction. The district was being criticized by many conservation-minded citizens, and writers, for allegedly cutting down water supplies to the Everglades National Park and endangering wildlife.

Let me assure you, gentlemen, that we fully recognize and acknowledge the needs of the Everglades National Park for adequate water supplies. The park is a vital part of the total water requirements we must satisfy.

The Governor made it abundantly clear to me that we must satisfy all of the water requirements of southern Florida. I am pledged to a policy that we must meet all water needs. We do not, we cannot, guarantee water to municipalities, to industry, to agriculture, or to the conservations areas, which are Everglades wildlife preserves north of the national park. And I might add, of what value is a guarantee if we don't have water, and I would further suggest that a guarantee is no substitute for wise management of our resources.

Senator NELSON. May I ask you here if it is your view, as it is the view of the previous witness, that the first priority is use by man, the second priority agriculture, and after that the Everglades?

Mr. PADRICK. My personal views, sir, are that all requirements must be considered at one time, and very shortly I will present to you in our presentation here a program that we have developed in conjunction with the corps to adequately meet the needs of all of the users of water in southern Florida.

Senator NELSON. Go ahead.

Mr. PADRICK. The biggest problem we face in improving water supply is monetary. We desperately need additional funds to expedite the water resources plan which was authorized by the Congress last fall. This plan will be a modification to the existing project. It will cost about \$76 million, but it will provide 4 more feet of water storage capacity in Lake Okeechobee, the liquid heart of south Florida.

It will also provide better water distribution facilities, and it includes new pumping stations which will back pump major east coast canals, to add more water to our reservoirs and wildlife areas. It promises to deliver to the national park the quantities of water asked by the Park Service each and every year with rare exceptions, such as once in 20 years, when we will fall below the requirement, but only slightly.

The existing water management project is still only about 50 percent completed. Construction over the years has been slowed down tremendously by inadequate funding. And no money at all has yet been provided to start the design of the much-needed water resources

modification. We earnestly solicit your help in getting enough funds to go forward with our project on a schedule to meet the capabilities of the Army Corps of Engineers, and to finance the water resources plan, because the life and growth of Florida and the preservation of the Everglades depend on this.

Let us look briefly at the historic flows of water in the Everglades.

The National Park Service has asked for a minimum of 260,000 acre-feet per year from conservation area 3. This is the median or average flow for the period of recordkeeping. But I should like to point out that it is not the flow that existed historically.

What the Park Service has asked each year is a midpoint between highs and lows of record; 50 percent of the time in the past the park received less than the average, and 50 percent of the time the park received more.

Thus, looking at the records of the U.S. Geological Survey, which were made before the levees were built around the conservation areas, we see that in 1955 the flow of water through Tamiami Trail into the Shark River Slough, into the park, was 94,000 acre-feet. In the year 1956, the flow was only 28,000 acre-feet. In 1957, it jumped to 229,000 acre-feet. In 1958, it was 447,000 acre-feet.

We have no quarrel about that at all. We recognize that this is what they need. We only point out that in history they have not received what they have needed.

The conservation area was not completed until late 1962. Feast and famine in water supply preexisted. We have no argument with the park's request. We are pledged to do everything possible to meet the requirement of 260,000 acre-feet each and every year. And several major steps toward this objective have already been taken.

In December 1964, the flood control district completed an interim plan for nonregulation or nonflood releases of water to the park. This was submitted to the Corps of Engineers and the Florida Board of Conservation, and was approved by those agencies.

It was also submitted to the National Park Service, and was put into effect in 1965. The schedule called for releases to the park on a month-by-month basis, even if water stages were as much as a foot below schedule in the conservation area north of the park. I might add that the Everglades terrain and wildlife in the conservation area north of Tamiami Trail, and that which exists in the park just south of Tamiami Trail, are identical.

We have, in effect, another Everglades Park north of the national park, and it is enjoyed by hundreds of thousands of Americans every year. There are alligators and deer, raccoons, fish, frogs, wading birds, and the full diversity of glades wildlife in the conservation areas. There are rare and endangered creatures, too, like the Everglade kite, which makes its home in the conservation areas, but is not found in the park. I mention this only to emphasize that there is a vital need for adequate water in the State's Everglades areas as well as in the national park.

Senator NELSON. I saw several Everglade kites down around Flamingo Park.

Mr. PADRICK. They tell us that the Everglade kite feeds on a certain snail which is found only in our conservation area.

Meeting these needs, as well as the needs of the cities and farmlands are all part of our total responsibility.

During 1965, another interim water supply plan was developed. It was put into effect in February 1966. This provided for still greater nonregulation releases to the park.

The schedule was keyed to water stages in Lake Okeechobee. This plan continues to be in operation. One of its drawbacks is that it does not conform as readily as would be desired to the monthly quantities requested by the national park. I might mention that we took this proposal to agricultural interests and others who use water and got their wholehearted approval. The program calls for releases to the park with stages as low as 12.5 feet above sea level in Lake Okeechobee.

We have deviated from this schedule, to help the park, by keeping the spillway gates open at the Tamiami Trail during drought periods when stages in the conservation area fell more than a foot below regulation. This was done, for example, in the very dry spring of 1967.

Now, in 1969, we have initiated a new proposal to make even better distribution of flows to the national park on a monthly basis. Our objective is to deliver the 260,000 acre-feet to the park annually in accordance with the park's monthly requirements. This plan has been submitted to the Park Service, and we are anxiously awaiting what we hope will be their approval of it.

This new plan has been studied with regard to the 39-year period of record. And we can report that it would deliver the park's needs in all but 12 percent of the 468 months since the start of recordkeeping.

In terms of total volume of water over the 39 years—that is, 260,000 acre-feet per year—the new plan would have only a 5-percent deficiency. That is, it would deliver 95 percent of the total asked by the park.

Incidentally, half of the small deficiency, during the period of almost four decades, came during the extreme drought period from 1962 through 1965.

We have examined the records of the U.S. Geological Survey before any construction was accomplished under our project. And I would like to point out that in the 7-year period from April 1, 1945, to April 1, 1951, there were 68 months when the actual historic flows were less than the flows requested by the National Park Service. This is 68 out of 84 months, or a deficiency of 80 percent. But that is history before the project.

Under our new plan, however, with currently completed construction, in the same 7-year period, there would not have been a single deficient month. The park's requirement would have been met each and every month for those 7 years with no deficiencies whatsoever.

We are waiting for approval from the Park Service before we implement this plan. Of course, it is a temporary program pending completion of the district's works. But one main feature of the new plan is that the spillway gates to the park will never be closed.

I will call your attention to the chart on your right, sir, and our chief engineer, Mr. Storch, would like to point out the new engineering we have suggested to the park, subject to their approval and, of course, the approval of the State board of conservation.

(For charts referred to see p. 86.)

Mr. STORCH. These top lines on this bar graph represent the monthly requirements submitted to us by the Corps of Engineers and the Park Service. These represent the monthly flows through the trail which would total 260,000 acre-feet annually.

You may ask the difference between the 260,000 acre-feet and the 315,000 acre-feet which was mentioned several times this morning. The 315,000 acre-foot figure, as General Cassidy pointed out, is along the east boundary of the park, and we do not have the ability to deliver that right now.

So, we are talking about 260,000 acre-feet in the trail.

Senator NELSON. All out of conservation 3.

Mr. STORCH. Through Lake Okeechobee and through trail 3.

Senator NELSON. That would not be draining water out of area 3?

Mr. STORCH. It would be the combination of all sorts of water from various sources that would come into the conservation areas, acting as a floodway flowing this water down through the trail into the park. Part of it would come from Okeechobee and part of it would come from the local drain.

Mr. PADRICK. The flood control district is delivering more water to the park. A comparison of two 12-year periods, that of 1940 through 1951, and that of 1952 through 1963, shows that the flow of water was more than doubled by the district. And rainfall was comparable in both periods.

The main reason for this increase to the park is that the east coast protective levee—the first thing constructed under the project in the early 1950's—has been holding excess water back in the Glades, holding it in the conservation areas, and then diverting it southward to the park. Water that used to flood Fort Lauderdale, Miami Springs, and Hialeah has been diverted to the park.

In 1966 and again in 1968 we released more than 1 million acre-feet of fresh water to the park. This is the equivalent of the great flood of 1947. It was that flood that brought into being our project in 1948.

We experienced no significant flooding in urban and agricultural areas in 1966 and 1968, and we were pleased to give the park almost four times its annual requirement.

So far in 1969 we have released more than 300,000 acre-feet of water to the park, and we are just starting into what normally is the summer rainy season. However, let me stress that, in spite of the fact we have already met the park's annual requirement for 1969, we still recognize the need for month-by-month releases during the remainder of the year and every year.

Senator NELSON. And of course they have a whole lot more than their requirement right now?

Mr. PADRICK. Yes, sir.

Senator NELSON. When you say you released 300,000 acre-feet to the park, you either had to do that or drink it.

Mr. PADRICK. We were drinking all we could drink.

There are two main points I am trying to emphasize here. First we are in good faith trying to give the national park what they say they need; and second, we are greatly improving the water supply over the natural or historic situation.

There have been many threats to the integrity of our wilderness areas in Florida. The governing board of the flood control district has vigorously resisted proposals to build 2,000-foot television towers in the conservation areas. Two years ago we denied a request from a major American oil company to explore for oil in the conservation areas. It is my belief that oil wells are not compatible with wildlife and water storage areas.

Senator NELSON. Didn't they drill just about 2 years ago south of the airport?

Mr. PADRICK. Unfortunately, it is in our district and they did drill under a preexisting lease but possibly we did not help them find oil there and the well they drilled was found dry.

Senator NELSON. That was based on some previous lease?

Mr. PADRICK. Yes, sir.

Senator NELSON. Are there any additional leases?

Mr. PADRICK. That lease is still in existence.

Senator NELSON. They can drill where?

Mr. PADRICK. They can drill in certain areas of the conservation area. My board and I personally opposed it. We opposed granting them a permit and by law we were required to give them access to the area. We do not encourage it. We do not want any further commercialization and fragmentation of our conservation areas.

Senator NELSON. What company has the lease?

Mr. PADRICK. Arcade Petroleum. This is a preexisting lease and the present policy would not be to permit any new leases in the area.

Senator NELSON. Is that still the Biscayne Aquifer?

Mr. STORCH. The Biscayne Aquifer runs something like this and this oil well was drilled over in this corner outside the area of the Biscayne Aquifer [indicating].

Senator NELSON. But you have control of lands within the Biscayne Aquifer, do you not?

Mr. PADRICK. Some of it; yes, sir. The conservation areas are owned in fee partially by us, partially by the State and unfortunately partially by private interests. We have a flowage easement to permanently store water on only about a third of the conservation area.

Senator NELSON. Because of the great porousness of that soil in the aquifer which is as high as 25 percent air, what would happen if they found oil and lost control of it and ruined the aquifer all the way to Miami?

Mr. PADRICK. It would be disastrous. It is my belief that oil wells are not compatible with the storage of water. This is the policy of the board. We are opposed to the future exploration of our conservation areas.

Senator NELSON. When is the expiration of that lease?

Mr. PADRICK. It has, as I recall, some period to go, sir. I believe, sir, that is part of the Coastal Petroleum lease that is in litigation now in Federal court where we have denied Coastal Petroleum access to their permit to mine limerock from Lake Okeechobee.

Senator NELSON. Is this the same group that wants to take lime?

Mr. PADRICK. Yes. It could be a diversity of corporate interests there, but I think it all stems from the original lease.

Senator NELSON. They have a large number of mineral leases all over the State, have they not?

Mr. PADRICK. Yes, sir; and our board is firmly opposed to this.

Senator NELSON. Is the issue of the mining at the bottom of that lake in court now?

Mr. PADRICK. Yes, sir.

Senator NELSON. Your board denied it and they claim a right under their lease?

Mr. PADRICK. Yes, sir.

That was my next point. We have other problems—such as threats to mine limestone in Lake Okeechobee—which could pollute the waters of the lake and jeopardize all of south Florida.

And farther south we have the 39-square-mile jetport and proposals for a transportation corridor which might include Interstate Highway 75, utilities, perhaps a high-speed transportation system, hovercraft, and other such things.

Last fall at a meeting in Fort Lauderdale with the State road department, I was alarmed by a map which showed an alinement for a transportation corridor which crossed the middle of Conservation Area 3 from the jetport site to Miami.

Senator NELSON. How far north of Miami?

Mr. STORCH. This dashed line was the original route which our Board opposed [indicating].

Mr. PADRICK. It would have taken some 80 square miles out of our conservation area.

Senator NELSON. Could they build through your conservation area without your consent?

Mr. PADRICK. This was leading into this next item.

On November 5, 1968, I sent a letter to conservationists throughout Florida, alerting them to this horrible alinement, which could fragmentize and destroy the whole southern end of the conservation area. I asked the help of conservationists in combatting this alinement. And I wrote to Jay W. Brown, chairman of the State Road Department, objecting strenuously, stating that the flood control district was absolutely opposed to the further fragmentation of the conservation area.

I must ask your indulgence, Senator, in your comments this morning on the 119 questions. They were prepared by my staff in our flood control district in cooperation with the Bureau of Outdoor Recreation.

We did not answer them. We were just as perplexed with the answers that we received as you are, sir.

Senator NELSON. I apologize. I picked up the questions and answers from conservationists down in the park, and I was just hitting at you as giving the answers.

Mr. PADRICK. Thank you, sir. I am just as opposed to the jetport as you are.

Senator NELSON. The answers were made by the port authority.

Mr. PADRICK. Yes, sir, they were made by the port authority at a meeting which I called and which showed the cooperation of all of the State agencies and Federal agencies in working with our flood control district to bring this matter to a head in a public light to try to secure answers from the port authority.

Senator NELSON. I apologize. I don't want to blame you for those answers. The title on the top said "Answers to Questions Submitted by Central and South Florida Control District" and I skipped the "by" when I was reading it.

Mr. PADRICK. Thank you, sir. We have done many things, but I do not wish to claim credit for this one.

The flood control district has recommended an alternative alignment for the corridor, either along the Tamiami Trail or along Alligator Alley, where it would do the least damage to the conservation area, and ultimately, to the National Park. I am gratified that Dade County, and I believe, the State Road Department have agreed to the alinement along Tamiami Trail.

Senator NELSON. Don't they intend, at least under a map I looked at, to cut diagonally across a corner of conservation area 3?

Mr. PADRICK. This is still a matter of conjecture, I believe, sir. We have assurances from all agencies that this will be properly coordinated and again Mr. Roy Wood, Bureau of Outdoor Recreation in Atlanta, has worked very closely with us and I assure you we will oppose any crossing of any nature across the conservation area. We feel just as proud of the conservation area as the National Park Service does of the Everglades National Park. We feel that both serve a unique purpose in Florida.

Senator NELSON. How many acres is conservation area 3?

Mr. PADRICK. Approximately 1 million acres.

We backed the proposal to change the regulations of the Department of Transportation last October, and sent letters to Washington urging the change in regulations to provide for two public hearings on corridor alinements and design, including a full consideration of aesthetics and conservation values.

The Flood Control District has taken the initiative, in regard to the jetport, in bringing out publicly the many potential dangers to the natural values of south Florida and in pulling together many governmental agencies.

In cooperation with the Bureau of Outdoor Recreation at Atlanta, I compiled a list of more than 100 questions concerning jetport planning, development, and operation; concerning drainage, water supply, and water quality; concerning water, air, and noise pollution; concerning wildlife and recreation; regional comprehensive planning; surface transportation and waste disposal.

Senator NELSON. That is the list of 100 questions I have here, is that correct?

Mr. PADRICK. Yes, sir.

Senator NELSON. We will print in the record the questions and the answers. I think they reveal the fact that the port authority did not have the answers to your tough questions.

Mr. PADRICK. I would not disagree with that.

(The questions and answers referred to follow:)

COMPILATION OF QUESTIONS CONCERNING DEVELOPMENT OF THE MIAMI JETPORT AND ASSOCIATED SUPPORT FACILITIES

Listed are questions relative to the Miami Jetport and satellite developments by category.

It is recognized that many of the questions expressed have not previously been considered to be generally the proper concern of the construction agency. However, the Miami Jetport project is unique in many ways in that it will have a far reaching effect on the entire environment of south Florida. The degree of this alteration to the ecology can be substantially reduced by cooperative comprehensive planning initiated at an early stage. Preferably now!

I. JETPORT

A. Planning

1. Why was the present location chosen?
2. What other locations were considered?
3. Specifically, why were these other locations rejected?
4. Has a master plan of development been drawn up for the Jetport development? If so, when will it be available for review?
5. In a news article in the November 30, 1968, issue of the New York Times, a Port Authority spokesman is reported as describing the airport plan as "fail-safe" because of the plans to convert the three general-aviation fields in the Miami area to commercial use if the "super jetport does not really materialize." What economic and operational differences are there between the two plans?
6. Have you considered the employment of biologists, hydraulic engineers and pollution control experts in helping you to resolve the many problems that can't be adequately handled by construction engineers?
7. How has Jetport master planning been coordinated with the adjacent Collier and Monroe County Plans for development?
8. What industrial activities are contemplated within the boundaries of the Jetport?
9. Is it contemplated that there will be a buffer zone with no facilities around the Jetport boundary and if so, how far will this buffer zone extend and how will it be enforced?
10. Have demographic, economic, and industrial growth studies been conducted with respect to the impact of the project on the area? If so, are the reports of such studies available for agency review? If not, are there plans to conduct such studies and who will do them?
11. Is the Dade County Port Authority willing to finance those studies and planning projects necessary to protect Everglades National Park, the Conservation Areas of the Central and Southern Florida Flood Control District, and other properties and resources from the damaging impact of the Jetport and associated development?

B. Development

1. What is the elevation to which the Jetport will be built?
2. Do you anticipate that all development within the Jetport will be built on fill?
3. Will all materials for construction be obtained from borrow pits or drag-lined canals? How much total acreage will be involved, and how many cubic yards of fill is estimated?
4. What type of vegetative cover will be employed on project land? Will it be fertilized? Will pesticides be employed?
5. How much of the total acreage will be utilized for runway under total development? How much for support facilities?
6. How much land will be left undeveloped after all runways, roadways and support facilities are completed?

C. Operation

1. Is the Everglades airport facility economically viable as a training project only?
2. Based on reasonable and prudent projections, at what point in the future will it become necessary to divert commercial operations away from Miami International Airport to the Everglades flight facility?
3. What controls will be exercised on overflights of Everglades National Park and Conservation Area 3?
4. Will any flight takeoff or landing patterns occur over Conservation Area 3?
5. How often will overflights (over the Park) less than: 1,000, 2,000 and 3,000 feet occur according to your air travel projections for the years 1975, 1980 and 1985?
6. What will be the flight patterns—entry, holding, landing, takeoff, and climbout—for all four runways for the major aircraft types that will ultimately use the airport facility, e.g., Boeing 707, DC-8-61, Boeing 747, Concorde, Boeing SST? Please furnish pattern diagrams, with indications of anticipated altitudes at various points in each pattern.
7. What materials are used to scrub down the planes? How are they treated or disposed of?

8. What controls will be exercised over aircraft noise?
9. How many decibels of noise will be experienced over Conservation Area 3, or the Big Cypress on landing or takeoff?
10. What are, or will be, the sound levels during the various operational phases for the new generations of jet engines that will be used to power the 747, Concorde, and Boeing SST? How do these levels compare with those of the current generation of jet engines?
11. What is the discharge (in pounds) of particulate matter, water vapor, and other potential pollutants during takeoff and landing for the major types of jet engines, both present and future?
12. Approximately how many airport-based employees will be necessary at the time of maximum operation as a training base?
13. Approximately how many airport-based employees will be necessary at the time of full-scale operation as a commercial airport?
14. Will fire control be accomplished by standard equipment, or controlled burn, or keeping the area flooded?

II. WATER

A. Drainage

1. What water resources are available to the Dade County Port Authority for primary runoff to be diverted?
2. Where will the flood and excess waters be discharged?
3. What plans have been developed for interior drainage and water control?
4. How much drainage is necessary?
5. Will the location of the Jetport interrupt the southward flow of water to the western part of Everglades National Park?
6. Has a study been initiated to determine what impact the Jetport and associated developments will have on the water flowing from the Big Cypress Swamp into Everglades National Park and Monroe and Collier county lands?
7. What will be the plan for controlling the historic quality of the water which drains from this area?
8. Has the possibility of a water canal system to the Gulf of Mexico been considered? Has such a canal been considered as possible runoff for the pollution problems?
9. How will the development of the Jetport and surrounding areas affect (volume-wise and seasonally) waters which now flow southward through the culverts that lie west of Forty-mile Bend on the Tamiami Trail?

B. Supply

1. What water resources are available to the Dade County Port Authority for use at the airport facility? At present? In the future?
2. From what outside sources do you plan to acquire water?
3. Are there adequate water sources within these areas of future development to satisfy anticipated residential, industrial and commercial demands?
4. What provisions are planned for storage of the required water?
5. What will be the ultimate water quantity requirements for potable water and non-potable water and where will these needs exist?
6. What plans have been made for reusing wastewater that may be produced?

C. Quality

1. What steps will be taken to guard against releasing contaminants into the ground and surface waters? These pollutants could accrue to the waters near the airport site, as well as, in the areas along the proposed transportation corridor that will include I-75.
2. What measures have you been considering to assure that polluted waters do not enter the Everglades National Park?
3. Is it intended that mineralized ground water from below the Jetport site be "blended" with imported water to increase water availability? What quality water is needed for nonpotable uses (predominantly industrial)?
4. If pollutants are mistakenly or inadvertently discharged to natural waters, how rapidly will they be conveyed to areas where the natural environment is being preserved? What effect will the various contaminants have upon the biota?

III. POLLUTION

A. Water

1. Have the Florida Air and Water Pollution Control Commission and the State Board of Health been included in the planning and development coordination?

2. How will the pollution levels on and around the Airport be monitored to prevent their buildup to dangerous proportions?

3. Has the Dade County Port Authority begun a study of water pollution sources and removal from the proposed Jetport? Is there a plan for the implementation of removal of pollution?

4. What are the plans for removal and discharge of storm waters to include treatment of the pollutants picked up by storm waters crossing the industrialized areas of the Airport? What about treatment of the chemicals, hydrocarbons, detergents, nutrients, pesticides, herbicides which would be present in these storm waters? What is the estimate of quantity and rate of this storm water runoff and where is the planned disposal?

5. Is it contemplated that runoff water will be treated and reused or somehow prevented from contaminating adjacent areas?

6. What provision will be made to insure that accidental Jetport pollution (i.e., oil and gasoline spills, etc.) will not contaminate Water Conservation Area 3 or Everglades National Park?

7. Will it be necessary, under any condition, to jettison fuel over Conservation Area 3 or the Big Cypress?

8. Where do you plan to jettison excess fuel prior to landings?

9. What protective measures are contemplated to prevent leakage of pollutants from POL lines or other utility lines in the corridor to and from the Jetport?

B. Air

1. Has the Port Authority initiated a study to determine the kinds and extent of air pollution which will arise from the Jetport operation?

2. What kinds and amounts of water pollution will result from air pollutant (industrial, jet fuel, residential, commercial) fallouts in the Jetport area?

3. What sort of air pollution hazards will result from jet fuel combustion and from industrial and commercial developments in the Jetport area?

4. What areas of the Park will be subject to air pollutants from the Jetport area?

5. How will the air pollution problems associated with jet operation, maintenance and repair, incinerators and other air pollution-causing activities be controlled?

C. Noise

1. Has the Port Authority initiated a study to determine the kinds and extent of noise which will arise from the Jetport operation?

2. Will there be a problem of noise and/or air pollution which may affect Indian lands, wildlife, and surrounding residential areas?

3. What are the plans for control of excessive noise and sonic booms associated with the Jetport operation?

4. Mr. Judy advised that the Park is considered a "sound barrier" or "sound screening" area. Just what exactly does this concept imply?

IV. WILDLIFE AND RECREATION

1. What studies has the Authority conducted relative to the possible conflict of air space between jet aircraft and birds, and what are the results of these studies?

2. Will birds cause a hazard to landings and takeoffs? If so, what remedial measures are contemplated?

3. Do you anticipate a future need for bird-control programs?

4. A paper in the *Journal of Wildlife Management* (Vol. 32, No. 2) reports that over 85 percent (2,100 birds) of a nesting colony near a New Zealand airport had to be poisoned to lessen air strike incidents. What problems of this nature do you envision? How will they be resolved?

5. Would you take control measures against the rare American Wood Stork if it proved to be an air strike hazard?

6. Will the runways be fenced to keep out deer and other wildlife species?

7. Will any borrow pits be isolated and shaped for fish and wildlife production, and will these be available for public use?

8. Will public fishing be allowed in any areas? Approximately how many acres would be involved?

9. What would be the economic loss to the commercial and sports fisheries industries of this area?

10. What do you intend to do about large vertebrates such as deer, turkey, alligators and wild hogs that are now within the boundaries of the Jetport?

V. REGIONAL COMPREHENSIVE PLANNING

1. What is the regional development plan associated with the Jetport?
2. Has the Jetport planning extended beyond the 38-square miles of the Jetport layout to include associated communities, industries and other development in support of the Jetport?
3. Has the State Planning Agency and the Florida Development Commission been incorporated into the planning, and are they included for future planning?
4. What will be the plan for keeping all affected agencies well informed as to plans and schedules to insure that all agencies can protect environmental interests by coordinated liaison and advice?
5. What sort of attempts, if any, have you made with Collier, Monroe and Dade officials to devise a master-zoning plan for the orderly and compatible development of the lands around the Jetport?
6. Will areas adjacent to the Jetport be built on fill?
7. Has Dade County made any arrangements with Collier County for effective zoning to protect the integrity of the Jetport?
8. What steps are planned for interagency coordination during the development, design and construction of the Jetport and the surrounding area? Will all interested local, county, State and Federal agencies be represented in this planning and monitoring group?
9. To what degree will responsibility be established for monitoring and preserving a suitable environment and enforcing regulations to keep it suitable?
10. Is there any other known development around the proposed Jetport that might influence the effects of the Jetport on its surroundings and especially the Everglades National Park?
11. Will the land owned by the Port Authority in Conservation Area 3 be developed for allied or other purposes? If so, what zoning plan has been developed?
12. What zoning has been done or will be done for a buffer zone around the Jetport and on adjacent property?
13. If communities around the Jetport resorted to drainage of the land rather than building on fill, what effect would this have on the wildlife, plantlife and water regimen (aquifers, etc.) in and around the Jetport?
14. Will the highway be located so that borrow canals will contribute to the effectiveness of works recently authorized in the Water Resources Report?
15. What provision will be made to control undesirable development along the highway and around the Jetport?
16. What changes in biology and ecology are expected in the area surrounding the Jetport and connecting highway?

VI. TRANSPORTATION, SURFACE

1. What are the requirements for the transportation corridor? What facilities are involved?
2. What alignment does the Port Authority propose to support for the construction of the transportation corridor from the Miami area to the Jetport?
3. What are the proposed dimensions of the transportation and utility corridor to the Jetport?
4. How much additional cost is involved in construction of the traffic corridor immediately adjacent to the Tamiami Trail rather than straight across Conservation Area 3? Is this additional cost the only factor involved?
5. Will any access be obtained to Conservation Area 3 from Port Authority land? Approximately how many acres?
6. Will any roads, powerlines, fuel lines or mass transport facilities go through Conservation Area 3, Fakahatchee Strand or Corkscrew Swamp Sanctuary?
7. What will be initial means of access to the airport property?
8. What are the requirements of the airport for access roads and transportation corridors and pipelines?
9. Will the highway be constructed in stages with additional lanes to be added as traffic develops and, if so, how will interim construction of borrow canals affect conveyance?
10. What number, size and location of bridges are proposed to minimize head loss through the highway?

11. What other service and access roads will be needed for the whole complex, and will the entire complex be designed so as not to interrupt the historic natural drainage patterns through Jetport lands to Water Conservation Area 3 and/or Everglades National Park?

12. How could water transportation to the Jetport be provided from the east without adversely affecting the Park or the Conservation Area?

VII. WASTE DISPOSAL

1. What plans do you have for waste water treatment; for solid waste disposal?

2. What are the plans for sanitary and industrial waste disposal from the area including the surrounding development of residential and service establishments?

3. What plans do you have for sewage treatment? What level of treatment is expected?

4. What kinds of industrial liquid wastes are expected and what are the plans for its treatment and disposal?

5. What control will be exercised over industrial wastes, airplane maintenance operations and fuel storage?

6. Are solid wastes to be put into sanitary land fill or incinerated or moved to some location outside the Jetport-Everglades National Park area?

7. What plans do you have for sewage treatment? What level of treatment is expected?

8. What plans do you have for industrial waste treatment?

9. What are the projected requirements and treatment plans for domestic waste? Where is the proposed disposition of the domestic treatment plant effluent?

10. Are drainage wells being considered?

VIII. MISCELLANEOUS

1. What plans are contemplated for mosquito, insect and rodent control, and what protection will be provided against the pesticides, rodenticides and other poisons involved?

2. What sort of aviation problems do you anticipate from temperature inversions and ground fog persistence at the Jetport site?

3. Are meteorological conditions such in the Jetport area that there is considerable potential for frequent smog formation?

ANSWERS TO QUESTIONS SUBMITTED BY CENTRAL AND SOUTH FLORIDA FLOOD CONTROL DISTRICT, FEBRUARY 3, 1969

I. A.

1. Refer to letter of February 15, 1968 from Alan C. Stewart to Federal Aviation Administration, Pages 7-13.

2. See Above Letter.

3. See Above Letter.

4. The master plan for the initial training mission is completed. The long range master plan is in progress. Completion will depend on acquisition of weather data, operating experience with initial development, completion of ground access planning and development of methods for environment control.

5. The Dade County Port Authority airport system was planned and designed to permit introduction of various types of commercial service at present general aviation airports if and when required. None of the present airports lend themselves to development as the second South Florida International Jet Airport.

6. The general consulting engineers of Dade County Port Authority have these special discipline engineers and scientists on their staff and are engaged in the development of the environmental master plan of the airport concurrently with long range planning for airport facilities. The engineers who are engaged in construction are not concerned with environmental planning. In addition, Dade County Port Authority is in negotiation with an entirely independent overview group to provide advice on preservation of the existing environment.

7. Yes. Dade County Port Authority has entered into an agreement with the Collier County Commissioners for control of land use up to three (3) miles beyond the airport boundaries.

8. Only those activities required to service the common carrier air transport system.

9. The agreement with Collier County provides for restriction in a three (3) mile zone around the airport. If possible, Dade County Port Authority would prefer to have no construction within this area. (See 7 above)

10. No such studies have been conducted by Dade County Port Authority. Such studies are the proper concern of Collier County rather than the Dade County Port Authority. We do not anticipate the growth this question implies since the new Jetport and related ground transportation system will be limited access facilities.

11. Yes, insofar as the influence of the airport is concerned. No harmful impact from the airport is expected.

I. B.

1. Runways are being built to elevation 14.0 at the centerline, taxiways to elevation 13.25. Undeveloped areas will remain at their present elevations.

2. Yes, present planning anticipates this.

3. Materials for construction are expected to come from borrow pits on the site. The presently master planned system of three (3) runways and associated taxiways will require excavation of approximately 15,400,000 cubic yards of material resulting in approximately 350 acres of excavated area. No planning has been done at present for areas of a future terminal and associated aviation services, including a transportation corridor. As an order of magnitude however, such areas might require possibly 45,000,000 cubic yards of excavation, resulting 1,000 acres of borrow area.

4. Some vegetative cover will be provided for disturbed and new embankment areas. The exact species is still under consideration. The only fertilization anticipated is that needed to help establish initial growth. No pesticides are anticipated to be necessary.

5. A possible six (6) runway system of airfield development including taxiways would entail approximately 3,300 acres of new graded and paved construction. Possible area for terminal, terminal aprons, transportation corridor and associated aviation services could be 3,500 acres.

6. If developed according to the assumption of the foregoing answers, 18,700 acres or 73 percent of the total site could be devoted to ponds or remain undisturbed.

I. C.

1. Yes.

2. This is estimated to take place in the 1975-80 time period if traffic continues to increase at the 1965-67 rate.

3. The Federal Aviation Administration controls all overflights, Dade County Port Authority expects that approach and departure routes for the new airport will reduce park overflights.

4. Yes.

5. All park overflights are expected to be above 3000 feet: (Even training flights, not normally over the park, are expected to be above 2000 feet).

6. This data will be developed in cooperation with the Federal Aviation Administration. It will include estimates since there is presently no operating experience with future aircraft.

7. Various types of detergents are used for washing aircraft. Treatment and disposal are under study as part of environmental planning.

8. It is expected that aircraft will be required to climb as rapidly as possible within their normal operating procedures. The Federal Aviation Administration controls altitude of aircraft operational altitudes and indirectly thereby, noise levels at the ground surface.

A. Aircraft noise levels will be in accordance with maximum allowable values of the Federal Aviation Administration.

10. Reliable sound level data is not presently available for new aircraft such as these. Federal Aviation Administration requirements for certification include maximum noise levels which are lower than those of current aircraft.

11. Dade County Port Authority does not have this information at the present time for current aircraft. It is not available now with respect to future aircraft except that new jet engines are announced as producing lower levels of particular matter emission through improved combustion. United Air Lines has recently announced a program to retrofit the engines on their Boeing 727 aircraft with new equipment which will improve combustion and reduce exhaust emissions.

12. Dade County Port Authority estimates that the presently scheduled airport project will require ten (10) employees.

13. A definite answer cannot be given at this time. The trends toward ticketing and baggage checking at remote terminals and toward larger aircraft will serve to reduce the number of airport airline employees in proportion to number of passengers as compared to present employment.

14. It is anticipated that fire control measures similar to those used in the Everglades Park may be employed. As new equipment and methods become available and accepted they will be used.

II. A.

1. Current thinking with respect to non-contaminated run-off is that concentrated flows may be directed to drainage canals and unconcentrated flow may be allowed to proceed directly into adjacent swamp areas.

2. This is currently under study. Possible discharge locations are construction area No. 3, the Tamiami Canal and en-airport diked storage.

3. Such planning is currently in progress.

4. Cannot be answered at this time. Dependent on the environmental studies presently in progress and on preliminary designs.

5. The natural flow of surface water will be maintained by such means and facilities as the current environmental studies indicate are required to best serve this purpose.

6. The current environmental study will include the impact on the Park and adjoining lands of the handling of overland flow and run-off from the airport property.

7. Presently under study. The historic quality of the water will be maintained.

8. Such a canal does not appear to be necessary at this time.

9. It is expected that the present volume of flow into the canal will be maintained or possibly increased. The volume of water flowing through the culverts under the Trail is governed partly by the condition of the culverts which is not under the control of Dade County Port Authority.

II. B.

1. Well water will be used initially. Studies have presently not been initiated regarding long range source of supply.

2. Study in progress at present.

3. See No. 2 above. Residential, industrial and commercial water requirements on Dade County Port Authority property are not anticipated.

4. No need is presently foreseen for water storage at the airport site.

5. This is not determined at the present time.

6. This is presently under study.

II. C.

1. No contaminants will be intentionally released. Run-off from areas where accidental contamination may occur will be contained by suitable devices and released only when known to be uncontaminated.

2. The design of the control, release and retention system is the primary measure. Continuous monitoring of contamination and maintenance of historic water quality is the second measure.

3. This possibility will be considered in the course of water supply studies.

4. The drainage and liquid waste system will be designed to preclude accidental discharge of polluted water.

III. A.

1. Dade County Port Authority, by contract agreement, is committed to the minimum standards of the pollution ordinance of Dade County, which exceed standards of the FA & WPCC and the State Board of Health.

2. It is presently anticipated that this will be handled by a full time Pollution Control Officer of the Dade County Port Authority, pollution inspectors as required, and the continuing monitoring services of the environmental overview group retained by Dade County Port Authority.

3. This study is presently under way.

4. This subject is under study and no specific plans have presently been developed. Present thinking is to segregate pollutable from non-pollutable flows. Pollutable flow would be retained until checked and found non-polluted, then

released. Polluted water would be treated and released, re-utilized or otherwise disposed of other than by surface means. Specific decisions in these regards will be developed from current environmental studies. No estimate is presently available as to quantity of run-off or points of disposal.

5. Normal run-off is not necessarily contaminated. See answers to No. 4 above.

6. See answer to question No. 4 above.

7. Dade County Port Authority will not permit aircraft which jettison fuel in this manner to use its facilities. Where jettisoning is necessary because of emergency conditions, and circumstances permit, aircraft will be expected to jettison over ocean areas, well removed from land, and at altitudes which will permit evaporation before reaching the surface. The possible exposure of these areas to unavoidable emergency jettisoning; which is a rare occurrence, will be essentially no different than at present.

8. See No. 7 above.

9. Primary protection is by good design and careful construction. Thereafter regular inspection and continuous monitoring of line pressure are the best safeguards.

III. B.

1. No study of this type has presently been started.

2. No study of this type has presently been started.

3. No hazardous conditions are anticipated from the airport area.

4. No pollution of the Park is anticipated.

5. No incinerators or other pollution causing activities are presently anticipated on this airport. Jet exhaust emissions are expected to decrease as the proportion of new combustion technology engines and retrofits increases. See answer to No. I.C. 11.

III. C.

1. This will be a portion of the environmental study currently in progress.

2. Areas regularly inhabited by Indians will be a minimum of one (1) mile from any planned airport approach or departure route. Present information indicates that no adverse effect on wildlife will occur.

3. All civil aircraft operations over South Florida will be subsonic. No sonic will result therefor. Subsonic operations are not expected to create excessive noise.

4. The Park and Conservation Area No. 3 are sound barriers in that no human habitation in these areas is anticipated.

IV.

1. Studies of this subject are in progress. It is believed that most bird flight takes place below 2,000 feet altitude.

2. No hazard is anticipated.

3. Need for such program is not foreseen at this time.

4. Such problems are presently not anticipated.

5. Not believed to be a problem. If necessary Dade County Port Authority would take appropriate measures under the circumstances.

6. Yes.

7. Yes, in cooperation with the Game and Fresh Water Fish Commission, the public will be welcome.

8. Yes. Initial training airport construction will result in 100+ acres of ponds, some or most of which will be available to the public. Others will be available for controlled conservation projects.

9. No loss anticipated. Benefits are expected to result from increased flow to Everglades, new fresh water fishing and improved wildlife feeding.

10. These will be protected and allowed to remain in undisturbed areas. Dade County Port Authority will cooperate with Game and Fresh Water Fish Commission.

V.

1. Reference is made to the recently announced planning of the Miami Urban Area Transportation Study in this regard.

2. No. The new airport will be self-contained and not dependent on associated communities. The contemplated access corridor is expected to provide such service to the airport as it may require from remote locations. This should minimize development adjacent to the airport and provide new opportunity for planned

development elsewhere. This is considered to be conducive to good community and regional planning.

3. Yes, to both questions.

4. All agencies, directly or through joint representation, will be kept informed as to planning and studies and will be given opportunity to review, comment and recommend. Effective solutions to all problems will be worked out through mutual collaboration.

5. Dade County Port Authority has entered into an agreement with Collier County regarding zoning near the airport.

6. Dade County Port Authority has no control over land beyond the airport boundaries. This is the responsibility of other agencies.

7. See No. 5 Above.

8. See No. 4 Above.

9. The primary responsibility lies with Dade County Port Authority. To carry out this responsibility Dade County Port Authority expects to be advised by a permanently retained overview group of nationally recognized ecologist consultants. Dade County Port Authority additionally expects to establish its own monitoring staff of inspectors provided with a suitable laboratory and other equipment, all under the direction of an environment control officer of Dade County Port Authority.

10. No.

11. The land owned by Dade County Port Authority in Conservation Area No. 3 is negligible.

12. See No. 5 Above.

13. This is not within the jurisdiction of Dade County Port Authority.

14. This is not within Dade County Port Authority jurisdiction, but Dade County Port Authority assumes this to be feasible.

15. See No. 2 Above.

16. Dade County Port Authority expects essentially no change for undisturbed areas on airport property. For non-airport property, this will depend on controls by other appropriate agencies.

VI.

1. Minimum requirements are for a one (1) conventional dividend limited access highway, a high speed passenger transport system and a utility corridor.

2. This is to be determined. The decision as to alignment is the responsibility of other agencies. Dade County Port Authority has supported and has been informally advised that a location adjacent to the Tamiami Trail is considered practical.

3. The *minimum* possible width would be approximately 300 feet exclusive of borrow canals. Dade County Port Authority considers however that to provide prudently for future transportation system requirements, to provide for esthetics and good environmental design, and to avoid short-sighted mistakes which have occurred in the past, the minimum width of right-of-way should be 1,000 feet.

4. The increased cost would be proportioned to the increased length of corridor. Insofar as Dade County Port Authority is concerned, this will not be a consideration in the selection of corridor alignment. No need is seen to cross Conservation Area No. 3.

5. Grade separations over the corridor would be appropriate and necessary in the opinion of Dade County Port Authority to provide access from the Tamiami Trail to approved recreation areas in Conservation Area No. 3, if desired. In any event the Dade County Port Authority is strongly supporting access from the corridor to Indian lands in order to protect this economy and culture.

6. No.

7. The existing construction road will be the means of access during the initial training phase of airport operation.

8. See No. 7 above. No pipe lines are considered to be necessary for the initial training mission. For commercial operation, the transportation corridor including jet fuel pipe lines will be required.

9. This planning for stage construction will be the responsibility of the government agencies concerned.

10. See No. 9 above.

11. No service roads will be constructed in undisturbed areas except as needed for fire protection, wildlife management and recreation. The natural flow of surface drainage across the site will be preserved.

12. If necessary and feasible, water transport to the airport could be provided via the recreation canals within Conservation Area No. 3, either existing or to be provided. Siphons, pumps, gates and other devices might be required to make this possible.

VII.

1. Plans for treatment and disposal of waste water are under study. It is anticipated that solid wastes would be removed from the site.
2. See No. 1 above regarding the airport. Dade County Port Authority has no responsibility or jurisdiction for off-airport areas.
3. See No. 1 above.
4. This matter is currently under study.
5. See No. 4 above.
6. See No. 1 above.
7. See No. 1 above.
8. See No. 4 above.
9. See No. 4 above.
10. This is one possibility currently under study.

VIII.

1. The need for such controls as would create an environmental impact problem is not foreseen. It is hoped that through the maintenance of a balanced ecology, natural control methods will suffice.

2. Acquisition of detailed meteorological data is currently in progress.

3. No smog is anticipated.

Mr. PADRICK. This list was submitted to the Dade County Port Authority on February 3. And I called a meeting with the port authority and all the Federal, State, and local agencies concerned in any way with the jetport and its effects. More than 200 officials and conservationists attended that meeting February 28 at Miami Springs. It was a daylong session. All the questions that I raised were read and discussed. And the port authority gave its replies to each which, of course, were not too comprehensive.

Senator NELSON. As I recall the answer to the question of pollution and sewage, it was that it was under study or, regarding any effect on the areas outside the jurisdiction of the airport, that they did not have any control.

Mr. PADRICK. Yes, sir.

Senator NELSON. Are you aware of any engineer who has any idea about how the effluent from the airport and the community which would develop might be disposed of without polluting the waters in the park?

Mr. PADRICK. The flood control district, and as you may or may not know, I serve without pay as a public citizen, and I am requested at various times to confine myself to the flood control district, but the flood control district—

Senator NELSON. But since you aren't getting any pay you can say anything you want to.

Mr. PADRICK. The flood control district has officially put them on notice that they would have to meet all of our standards in any discharging of water of any nature into our conservation area.

Senator NELSON. Does the drainage from the 38-square-mile airport site flow into conservation area 3 or does it flow northwest?

Mr. PADRICK. It is primarily southwest and will not come into our district but, of course, it will affect the Everglades National Park.

Senator NELSON. That airport is being built just about on the watershed; is it not?

Mr. PADRICK. Yes, sir.

Senator NELSON. Wouldn't there be some drainage in your direction?

Mr. PADRICK. Yes, sir; there will be some, I am sure. To what extent, we have asked them to furnish us details of this. I don't believe we have received that information.

Mr. STORCH. No, sir. What they are doing now, Senator—

Senator NELSON. Would you identify yourself.

Mr. STORCH. I am William V. Storch, chief engineer, Central & Southern Florida Flood Control District, West Palm Beach, Fla.

The present runway they have in there they are maintaining by installation of drainage structures. The natural drainage flow is from northeast to southwest. In actuality they have not come to us as yet with any overall drainage plan which would mean pumping water back into our conservation.

This is what it would require. It would require pumping to remove water from the jetport area back into our conservation areas. I think if you will look at those upper two pictures over there, this typifies the situation in this area.

Mr. PADRICK. This is at the airport looking east. Both of these pictures are that way.

Mr. STORCH. A third of the way up and half in the other picture is our levee. This is our conservation area dike, so this actually blocks any natural drainage that might exist over in this direction. Actually, the natural drainage is from the levee away towards the southwest, and this is the natural drainage flow that should be maintained.

Senator NELSON. I notice that they are putting pipes underneath the airport. Have they done any engineering studies to get some idea as to what the size of those pipes have to be?

Mr. STORCH. The port authority has some engineers.

Mr. PADRICK. We have asked that they furnish us with pertinent information on drainage and to date they have not done that, sir.

Senator NELSON. You don't really know how much will drain from that area to yours as of now?

Mr. PADRICK. No, sir. I would assume predominantly it would be to the southwest and would not affect us to a great degree, but this is strictly an assumption.

Mr. STORCH. All of their present drainage is going to the southwest. None of it is coming into us now. They are aware they would have to apply to us for a permit.

Senator NELSON. You would have established water quality standards, and I assume, they would have to be met before you permitted any water discharge?

Mr. PADRICK. Yes, sir; it would be by permit and we would place them on notice. We would revoke their permit if they did not comply.

Senator NELSON. If they wanted to pump effluent into your area which would meet the secondary standards of treatment; that is, 90 percent of the nutrients removed, would you accept that kind of effluent?

Mr. PADRICK. No, sir.

Senator NELSON. Do you have a water quality standard established for any artificial introduction of water into the area?

Mr. PADRICK. We are in the process of that.

Mr. REED. Yes, sir; the water quality standards have been accepted by the Federal Water Pollution Control Commission and the Depart-

ment of the Interior. There is a review going on at present on pesticides and herbicides.

Senator NELSON. A review within your State?

Mr. REED. Yes, sir.

Senator NELSON. The objective being—

Mr. REED. To establish parameters, very definitely, probably from the very intense activities in your home State, sir.

Mr. PADRICK. Some concern was expressed subsequently by conservationists, that not enough studies had been conducted, especially studies concerning the ecology of the total area, including effects on the conservation area and national park. It was generally agreed that a regional planning authority is needed to supervise development of the jetport and surrounding areas.

I believe the important thing here is that all the questions anyone could think of, concerning the jetport and its impact on south Florida, have been aired and debated.

On May 1, more than 20 experts were named to an ecology committee, including university professors, biologists, national park officials, and a wide range of other governmental officials. They are moving ahead with studies of fish, mammals, birds, reptiles, plants, water quantities, and water, air, and noise pollution.

Then there was a tricounty meeting at Naples on May 9, attended by representatives of Dade, Monroe, and Collier Counties, together with Homer Still, Florida's State Planning Director. They are now working to draft a resolution creating a regional authority to oversee not only the jetport but the future of lands between the jetport and the park, and to prevent adverse effects on the park and conservation area.

I called another meeting May 19, at West Palm Beach, with most of the Federal, State and local agencies in attendance. At that meeting, Roy K. Wood, regional director of the Bureau of Outdoor Recreation, at Atlanta, unveiled proposals for study programs which will cost about \$3.1 million during the next 4 fiscal years.

Senator NELSON. How much?

Mr. PADRICK. \$3.1 million.

It takes a lot of pushing to prevent haphazard developments from ruining key wilderness areas, and a lot of shoving to preserve the integrity of our wilderness and wildlife, our water quality, and to improve the flows to the national park. But I have my shoulder to the wheel. And it is a good sturdy shoulder.

I do appreciate the help and advice I have received from conservation leaders in Florida and elsewhere in the United States. I have counseled with many leaders of the Izaak Walton League, the Audubon Society, the Sierra Club, and many similar organizations. And I believe there is a different relationship that exists today between the flood control district and these groups, and with the Department of Interior, and even with such people as Mr. R. T. Fisher of Boston whaler fame.

I believe our relationship is better than it was 5 years ago with these groups. It is imperative that we all work together to plan wise development, wise use of natural resources, to preserve the national park, the conservation area, our wildlife and the quality of our air and water.

We need your help gentlemen, in the adequate funding of our present project and the new water resources project to ensure the life and growth of all south Florida and the preservation of its natural resources.

Senator NELSON (presiding). Thank you very much for a very fine statement.

May I ask whether the Central & Southern Florida Flood Control District has jurisdiction in terms of managing floodwaters?

Mr. PADRICK. Surface waters.

Senator NELSON. Do you have decisionmaking authority over who gets how much water?

Mr. PADRICK. They are required, sir, by a permit application to us to discharge water into or withdraw water from our facility.

Senator NELSON. Any user?

Mr. PADRICK. Yes, sir. For example, in Fort Pierce, St. Lucie County, an agriculture area I am from, I make it abundantly clear that when water reaches a certain stage that they must cease irrigation and if they fail to cease irrigation, their permit would be permanently revoked.

I further tell them they must use conservation practices to more wisely and judiciously use the water we have. We must improve our techniques. I do not hesitate at any time to tell water users they must use these improved techniques and we must continue to develop new techniques to more wisely use what we have.

Senator NELSON. The best studies I know of in that respect are underway in Israel now, in terms as specific, for instance, as to how much water it takes to grow an orange or a radish.

Mr. PADRICK. Yes, sir; not only with that but with attempts to reduce evaporation, we have cooperated with those studies and we have worked with the rainmakers in Florida. We have been very encouraged with the results that they have obtained so far in cloud seeding. These are the exotics that we must still look to to help increase our future water supply.

Senator NELSON. Maybe you do not have the information to answer this question. I should have asked General Cassidy this.

As of now, how many acre-feet of water is needed by all users for agriculture and whomever else you supply?

Mr. PADRICK. We will have that information in just a moment, sir. They have it. The water resources program, as you may know, was not just one volume, but it was a series of volumes, and then they condensed it to two very thick books only. It was a \$400,000 study that took some 3½ years to complete.

We feel that our future life depends upon the implementation of the studies that were made and concurred in by the various governmental and State organizations in this study.

Mr. STORCH. The estimated 1970 demand—these are data prepared by the Corps of Engineers and this includes the 315,000 acre-feet for the park—the total water demand average annually is about 1.9 million acre-feet.

Senator NELSON. I do not really understand this. Are we talking about the need over and above the natural fall in any particular area? In other words, are you talking about the acre-feet needed in rainfall

years of say 45 or 60 inches, the difference between what falls and is needed?

Mr. STORCH. Yes, sir. This is the demand for such purposes as municipal water supply, supplemental water for irrigation. Florida is the largest crop-irrigating State east of the Mississippi River. It is for agricultural irrigation, it is for water quality control, it is for salinity control, and meeting the park's requirement of 318,000 excess feet that fall on the park. So this is over and above. This is what is called supplemental water to meet these requirements.

Senator NELSON. If there is adequate rainfall there would be years in which they would not need any of that 315,000?

Mr. STORCH. This plan states, regardless of what the rainfall is over a park, whether they have had 100 or 30 inches, this water would be delivered to the park on a monthly schedule as an objective to meet the 315,000-acre-foot volume regardless of the rainfall.

Senator NELSON. When we use these figures, we are talking about supplementals?

Mr. PADRICK. Yes, sir.

Mr. STORCH. Basically, we are talking about supplemental.

Senator NELSON. How many acre-feet does Lake Okeechobee hold now when it is full?

Mr. STORCH. I think, of course, we have to assume some base level, some minimum level, and if we assume a level of 10, we are talking about elevation 10 and 15½. It is 4½ to 5 million acre-feet, within that range. This is the capacity. As was pointed out by Mr. Reed, there is not necessarily always this volume of water. The lake has gone to low elevation several times in 15 years in my experience.

Senator NELSON. That makes a depth of about 30 feet?

Mr. STORCH. This is 10 feet above sea level and the deepest part of the lake is about at mean sea level. It is like a saucer.

Mr. PADRICK. This week it was 14.4 feet above sea level.

Senator NELSON. When it is at 14.4 feet, what is the depth of the lake?

Mr. STORCH. The bottom of the lake is about at mean sea level, 14.4 feet.

Senator NELSON. If you say 14 feet, that is the depth of the lake?

Mr. STORCH. It is measured from mean sea level. It just happens that the mean sea level and the bottom of the lake is 14.4 feet.

Senator NELSON. How many acre-feet does it hold?

Mr. STORCH. Between the bottom of the lake and 15½ it holds 4½ to 5 million acre-feet.

Senator NELSON. That is the total amount of water in the whole lake?

Mr. STORCH. That is the total amount of water in the whole lake.

Senator NELSON. What did you say it was, between 10 and 14?

Mr. STORCH. Between 10 and 15½ it would be about half of that.

Mr. PADRICK. You see, we hope to have our levees finished in the next 18 months. That will give us this 2 feet additional storage that was authorized some 20 or 22 years ago. We are way behind schedule.

Senator NELSON. Then there is an authorized additional 4 feet; is there not?

Mr. PADRICK. Yes, sir; but no funding for it.

Senator NELSON. The 2 feet cost how much?

Mr. PADRICK. \$37 million.

Senator NELSON. Does anyone have for the record the lake levels over the period of the last 25 or 30 years?

Mr. STORCH. We can supply this for the record.

Senator NELSON. How far back do you have?

Mr. PADRICK. Thirty-nine years.

Mr. STORCH. We probably go back to about 1926 or 1928 and perhaps before that.

Senator NELSON. Would you submit for the record the lake levels for whatever period you have them?

Mr. STORCH. Yes, sir.

Mr. PADRICK. I might suggest, sir, we submit also the historic flows into the park.

Senator NELSON. Yes, if you would.

(The information to be furnished follows:)

CENTRAL AND SOUTHERN FLORIDA,
FLOOD CONTROL DISTRICT,
West Palm Beach, Fla., June 9, 1969.

HON. HENRY M. JACKSON,
Chairman, Senate Committee on Interior and Insular Affairs,
Senate Office Building,
Washington, D.C.

DEAR SENATOR JACKSON: I wish to express my thanks both personally and on behalf of the Governing Board of the Central and Southern Florida Flood Control District for having been afforded the opportunity to appear before your Committee at its June 3, 1969 hearing. As expressed in both my formal presentation and in response to your questions and Senator Nelson's, it is my firm view that all aspects of the environmental impact of the Dade County Jetport on the Everglades National Park and this District's Everglades Conservation Areas must be thoroughly investigated and analyzed. I am indeed pleased that these questions have come under the scrutiny of your Committee.

In response to Senator Nelson's request for information concerning historical stages on Lake Okeechobee and flows through Tamiami Trail to Shark Slough in the National Park, I am submitting for the record the following documents:

1. Lake Okeechobee stage hydrograph in two sheets for the period of record; March 1912 to May 1969. Stages are end of month elevations and are expressed in terms of "feet above mean sea level." On this hydrograph we have plotted the minimum pool elevation of 10.0 feet above mean sea level. In the right-hand margin we have indicated the amount of water available (in acre-feet) above minimum pool elevation at each two-foot increment of Lake Okeechobee stage. For example, at a Lake stage of 12.0 feet above mean sea level the volume of water in the Lake above minimum pool stage is 625,000 acre feet.

2. A tabulation of Lake Okeechobee end of month stages for the above period of record. This tabulation was the basis for plotting the above Lake stage hydrograph.

3. A bar graph showing the monthly flows through that portion of Tamiami Trail which is tributary to Shark Slough. This is the reach for which the Park's stated annual minimum required discharge is 260,000 acre feet. On this graph we have shown, at the end of each year, the total record discharge for that year.

4. A tabulation, by month, of the discharges from which the above bar graph was plotted. Yearly totals are also plotted. At the bottom of the tabulation, on the line headed "Park demand", the minimum monthly flow requirements to produce the annual total of 260,000 acre feet are given. We have marked with an asterisk those months wherein the actual recorded flow was deficient in terms of the Park's stated minimum requirements.

In addition I am taking the liberty of enclosing a copy of my letter of November 5, 1968 to Mr. Jay W. Brown, Commissioner of the Florida State Road Department, and a copy of my letter of the same date to conservation organizations throughout the State. Both of these letters were mentioned in my written presentation and I trust they can be included as a part of the record of the Committee hearings.

Your Committee can be assured of my continuing efforts, and that of the Flood Control District, in taking those measures necessary to preserve and maintain our unique Everglades; in our Everglades Conservation Areas as well as in Everglades National Park.

Sincerely,

R. W. PADRICK, *Chairman.*

LAKE OKEECHOBEE STAGES FOR LAST DAY OF MONTH (PERIOD OF RECORD)

[Stage in feet above mean sea level]

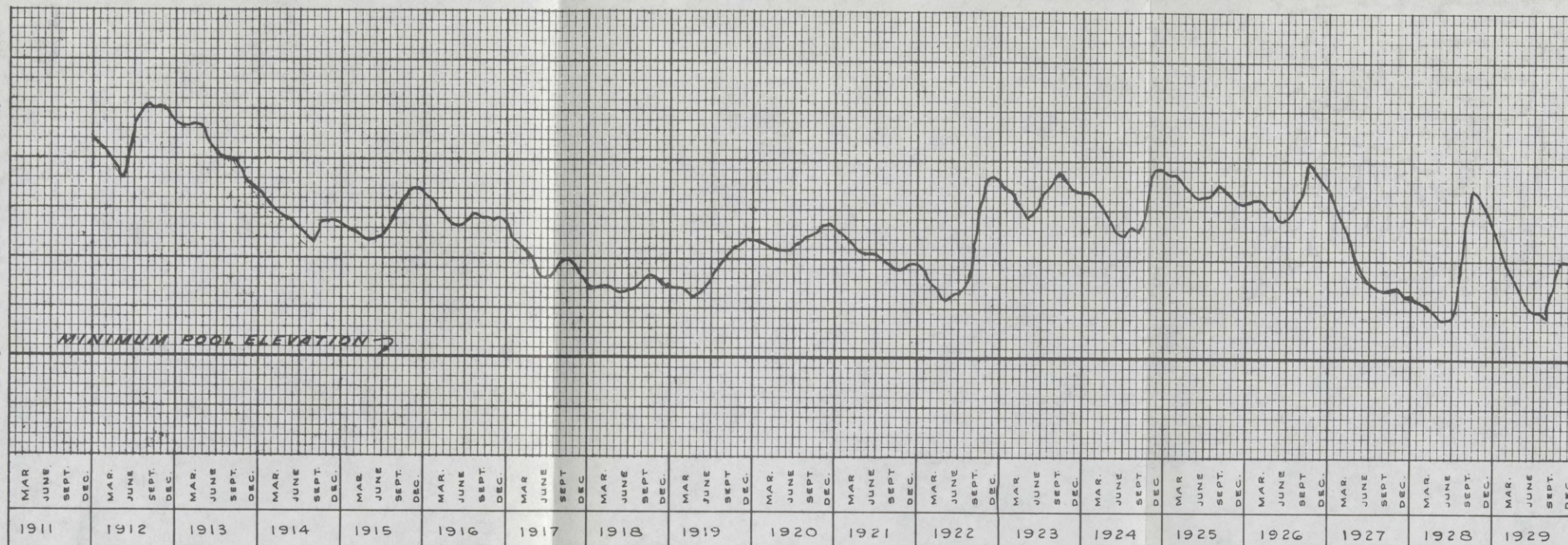
Year	Stage (feet)											
	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1912			17.8	17.2	17.6	19.4	20.0	20.2	20.1	20.2	19.9	19.5
1913	19.3	19.4	19.4	19.4	18.6	18.2	18.1	18.0	18.0	17.2	17.0	16.8
1914	16.4	16.0	15.8	15.6	15.5	15.1	14.9	14.6	15.6	15.6	15.6	15.4
1915	15.3	15.1	14.9	14.7	14.8	15.1	15.6	16.1	16.6	16.9	16.9	16.7
1916	16.5	16.1	15.7	15.3	15.2	15.4	15.8	15.7	15.7	15.6	15.7	15.5
1917	14.9	14.6	14.3	13.7	13.3	13.2	13.5	14.0	14.1	13.9	13.3	12.9
1918	12.9	13.0	13.0	12.8	12.7	12.8	12.9	13.2	13.5	13.4	13.1	12.9
1919	12.9	12.8	12.5	12.6	12.9	13.2	13.7	14.2	14.5	14.6	14.8	14.8
1920	14.8	14.7	14.6	14.4	14.4	14.6	14.8	15.0	15.1	15.5	15.6	15.3
1921	15.1	14.8	14.5	14.3	14.3	14.2	14.0	13.8	13.6	13.7	13.9	13.9
1922	13.7	13.1	12.8	12.4	12.6	12.7	13.1	13.8	16.1	17.3	17.4	17.2
1923	16.9	16.8	16.1	15.7	15.9	16.4	16.8	17.2	17.6	17.2	16.8	16.8
1924	16.8	16.6	16.1	15.7	15.1	15.0	15.4	15.2	15.9	17.6	17.8	17.7
1925	17.6	17.5	17.1	16.8	16.6	16.6	16.7	17.2	17.0	16.7	16.3	16.3
1926	16.6	16.5	16.1	16.0	15.6	15.8	16.4	16.8	18.0	17.6	17.2	16.8
1927	16.0	15.5	14.5	13.6	13.3	13.0	12.8	12.8	13.0	13.0	12.6	12.7
1928	12.5	12.4	12.0	11.7	11.7	11.9	13.4	15.7	17.0	16.8	16.2	15.4
1929	14.7	14.0	13.6	12.9	12.3	12.0	12.0	11.8	13.1	14.0	14.1	14.2
1930	14.3	14.3	14.0	14.0	14.1	17.0	17.2	16.9	17.1	17.0	16.2	15.8
1931	15.5	15.3	15.2	15.0	14.6	13.5	12.9	12.3	12.1	12.0	11.5	11.4
1932	11.4	11.1	10.8	10.7	10.8	11.4	11.4	12.1	12.4	12.6	13.2	12.9
1933	12.6	12.4	12.5	12.3	12.2	12.3	12.5	13.6	14.8	15.4	15.0	14.8
1934	14.7	14.5	14.5	14.6	14.8	15.1	15.3	15.4	15.5	15.4	15.0	14.8
1935	14.6	14.2	14.0	13.7	13.3	13.4	13.6	13.9	14.6	14.8	14.6	14.5
1936	14.5	14.8	14.4	13.8	13.9	15.0	14.8	14.7	14.7	14.4	14.5	14.6
1937	14.7	14.7	14.7	14.8	14.4	14.2	14.5	14.2	14.2	15.0	15.7	15.3
1938	14.6	14.5	14.2	13.7	13.5	13.6	13.7	13.8	13.8	13.8	13.8	13.6
1939	13.5	13.1	12.8	12.6	12.6	12.4	12.9	14.4	15.2	15.6	15.2	15.2
1940	15.2	15.3	15.5	14.6	13.9	13.8	13.6	14.3	15.4	14.6	14.4	14.5
1941	14.8	14.8	14.3	14.3	13.6	13.6	14.8	14.3	14.9	15.1	14.8	14.9
1942	15.0	15.2	14.9	14.4	13.6	14.5	14.1	13.7	14.0	13.6	13.4	13.3
1943	13.3	12.9	12.8	12.4	12.0	11.9	12.4	12.7	13.3	13.8	13.9	13.7
1944	13.7	13.5	13.2	13.1	12.7	12.4	12.4	12.7	12.9	13.3	13.2	13.1
1945	13.2	13.0	12.9	12.1	11.6	11.7	12.6	13.2	15.5	15.8	15.4	15.5
1946	15.4	15.3	15.0	14.1	14.1	14.2	14.4	14.6	15.0	14.7	15.0	15.0
1947	14.8	14.8	15.3	14.8	14.5	15.2	15.7	15.9	17.9	18.7	18.4	17.4
1948	16.9	15.9	14.6	13.6	13.4	13.0	13.2	13.8	16.2	17.6	16.8	15.6
1949	14.7	14.1	13.5	13.1	12.6	13.1	13.6	14.6	14.8	14.7	14.8	15.2
1950	15.0	14.7	14.4	13.9	13.5	13.1	13.0	13.0	12.9	13.8	13.8	13.8
1951	13.6	13.5	13.1	13.1	12.9	12.8	13.2	13.7	13.9	15.6	15.1	15.0
1952	14.8	15.0	14.5	13.6	13.1	12.9	13.1	13.6	14.1	15.8	15.3	15.2
1953	15.2	14.9	14.2	13.7	12.9	13.3	13.9	14.2	16.0	17.6	17.0	16.1
1954	15.3	14.9	14.5	14.1	13.5	14.0	14.1	13.5	14.2	14.4	14.4	14.4
1955	14.4	14.3	13.8	13.5	12.9	13.5	13.5	13.5	13.6	13.3	13.0	12.8
1956	12.6	12.4	11.8	11.3	10.9	10.5	10.4	10.3	10.8	12.6	12.6	12.6
1957	12.8	12.9	13.2	13.4	13.6	13.3	13.5	13.9	14.9	14.7	14.8	15.4
1958	16.1	15.2	15.2	14.6	13.5	13.1	13.2	13.3	13.6	13.7	13.5	13.8
1959	13.8	13.6	14.2	13.8	13.6	15.1	15.0	14.5	14.8	15.9	15.6	15.1
1960	14.7	15.1	14.6	14.2	13.3	13.6	13.8	14.3	16.8	17.5	16.7	15.3
1961	14.8	14.4	14.2	13.7	13.5	13.2	12.8	12.9	12.8	12.4	12.1	11.7
1962	11.5	11.3	11.0	10.7	10.3	11.1	12.0	12.9	14.9	14.9	14.9	14.5
1963	14.4	14.6	14.3	13.5	13.3	13.2	12.6	12.3	12.3	12.0	12.0	12.3
1964	12.8	13.3	13.1	13.0	12.9	13.0	13.2	13.7	14.2	14.6	14.4	14.3
1965	14.0	14.2	14.4	13.6	12.5	13.1	13.6	13.8	14.1	15.0	15.0	14.7
1966	15.1	15.5	15.1	14.3	13.8	14.0	14.0	14.4	15.4	15.8	15.3	14.9
1967	14.6	14.4	13.8	12.8	11.9	12.3	13.0	13.4	13.8	14.6	14.0	13.7
1968	13.4	13.2	12.7	11.9	12.2	14.6	15.2	14.3	15.0	15.6	15.7	15.3
1969	15.3	15.1	15.2	14.3	13.9							

DISCHARGE CONTRIBUTORY TO SPARK RIVER SLOUGH IN ACRE FEET

YEAR	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.	OCT.	NOV.	DEC.	TOTAL
1940	* 9,040	* 6,050	4,360	2,890	1,710	* 2,900	* 3,660	* 6,760	* 25,760	* 21,820	* 17,790	* 13,400	* 116,140
1941	* 16,780	33,260	21,510	20,340	6,820	* 2,840	12,050	* 10,820	* 13,560	* 17,460	* 15,940	* 10,140	* 181,520
1942	* 6,950	* 4,290	4,240	* 1,650	1,900	29,680	20,160	* 8,970	* 15,530	* 7,310	* 1,800	* 1,780	* 104,260
1943	* 1,300	* 610	* 440	* 680	* 900	* 790	* 3,580	* 5,660	* 18,800	* 18,320	* 11,720	* 10,080	* 72,880
1944	* 6,760	* 1,740	* 885	* 270	* 1,030	* 800	* 2,240	* 6,020	* 2,270	* 2,460	* 4,650	* 1,360	* 30,485
1945	* 980	* 260	* 40	* 0	* 0	* 0	* 1,220	* 7,810	40,690	* 46,920	* 39,500	* 16,720	* 157,140
1946	* 7,560	* 1,700	* 1,100	* 520	* 750	* 2,060	* 1,050	* 4,160	* 16,950	* 15,430	* 12,430	* 8,240	* 71,950
1947	* 4,310	* 2,350	* 3,090	1,880	650	10,770	30,060	63,320	86,850	279,700	196,910	129,090	309,080
1948	73,150	23,760	* 1,450	* 50	160	* 240	* 190	* 200	* 18,160	258,190	132,660	62,090	370,280
1949	23,240	* 3,610	* 220	* 80	* 0	* 2,450	* 5,080	* 7,380	* 25,940	* 53,480	* 34,980	* 14,672	* 171,152
1950	* 8,300	* 520	* 190	* 0	* 0	* 0	* 550	* 320	* 3,590	* 18,260	* 10,830	* 2,990	* 45,550
1951	* 1,890	* 450	* 0	* 0	* 0	* 0	* 110	* 1,050	* 7,020	* 20,840	* 28,910	* 18,990	* 79,260
1952	* 4,510	* 2,230	* 70	* 0	* 0	* 280	* 4,120	* 6,700	* 13,210	* 50,840	62,460	35,780	* 180,200
1953	25,570	24,380	5,990	* 40	10	* 210	* 450	* 10,080	40,510	133,400	171,330	136,470	548,440
1954	84,830	30,590	13,220	2,780	3,170	32,720	46,780	63,320	96,970	114,950	89,230	74,380	552,940
1955	41,620	16,930	* 2,080	* 0	* 0	* 790	* 2,110	* 8,610	45,690	* 38,420	* 22,430	* 9,590	* 188,270
1956	* 2,680	* 250	* 0	* 0	* 0	* 0	* 60	* 320	* 3,230	* 29,380	* 17,370	* 3,200	* 56,490
1957	* 120	* 30	* 100	* 10	3,670	* 1,800	* 1,450	* 8,240	42,890	160,440	118,980	71,310	409,040
1958	104,500	123,870	118,030	98,160	96,670	86,860	90,360	49,060	41,880	40,700	* 25,640	* 21,020	394,700
1959	* 15,430	* 6,110	4,600	* 1,420	* 1,010	19,210	103,270	148,760	153,480	142,620	157,050	163,520	916,480
1960	118,640	69,960	39,960	16,660	3,780	7,380	7,870	16,840	125,520	258,300	227,850	149,990	1,042,250
1961	92,210	47,080	13,090	610	30	* 350	* 1,670	* 2,920	* 2,700	* 1,190	* 80	* 0	* 161,930
1962	* 0	* 0	* 0	* 0	* 0	* 240	* 2,390	* 4,170	* 8,690	* 5,960	* 5,710	* 5,160	* 32,320
1963	* 3,440	* 2,440	* 980	* 60	* 0	* 170	* 200	* 680	* 3,270	* 4,540	* 3,570	* 2,490	* 21,840
1964	* 3,330	* 1,250	* 370	* 10	650	* 5,070	* 3,370	* 3,500	* 4,650	* 6,840	* 8,070	* 10,490	* 47,600
1965	* 9,940	* 5,150	* 4,480	* 1,330	110	* 0	* 0	* 820	* 5,520	* 12,960	* 32,090	* 12,180	* 84,580
1966	* 10,600	12,350	47,940	44,480	43,810	76,490	215,880	255,960	174,370	169,280	* 42,960	* 4,500	1,098,620
1967	* 12,630	10,620	17,590	11,150	6,320	8,560	18,770	33,470	* 29,510	* 18,490	* 16,380	* 7,850	* 191,340
1968	* 9,360	* 7,640	6,260										23,260
Park Demand	22,000	9,000	4,000	1,700	1,700	5,000	7,400	12,200	39,000	67,000	59,000	32,000	260,000

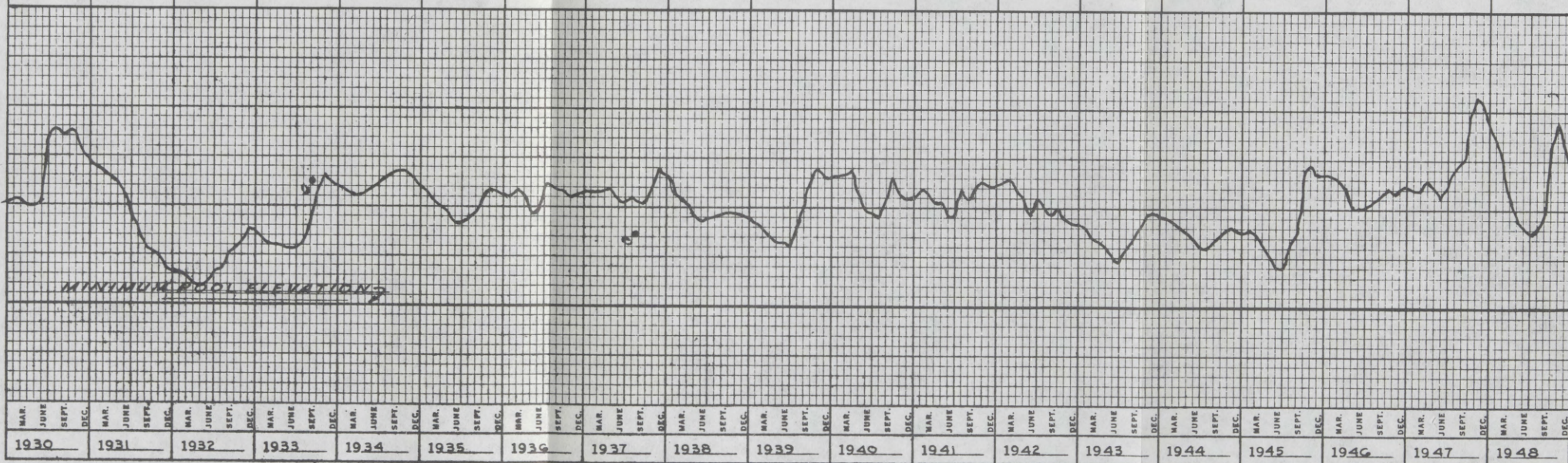
* Park Demand was not met

LAKE STAGE - FEET MEAN SEA LEVEL



STORAGE IN THOUSANDS OF ACRE FEET

LAKE STAGE - FEET MEAN SEA LEVEL

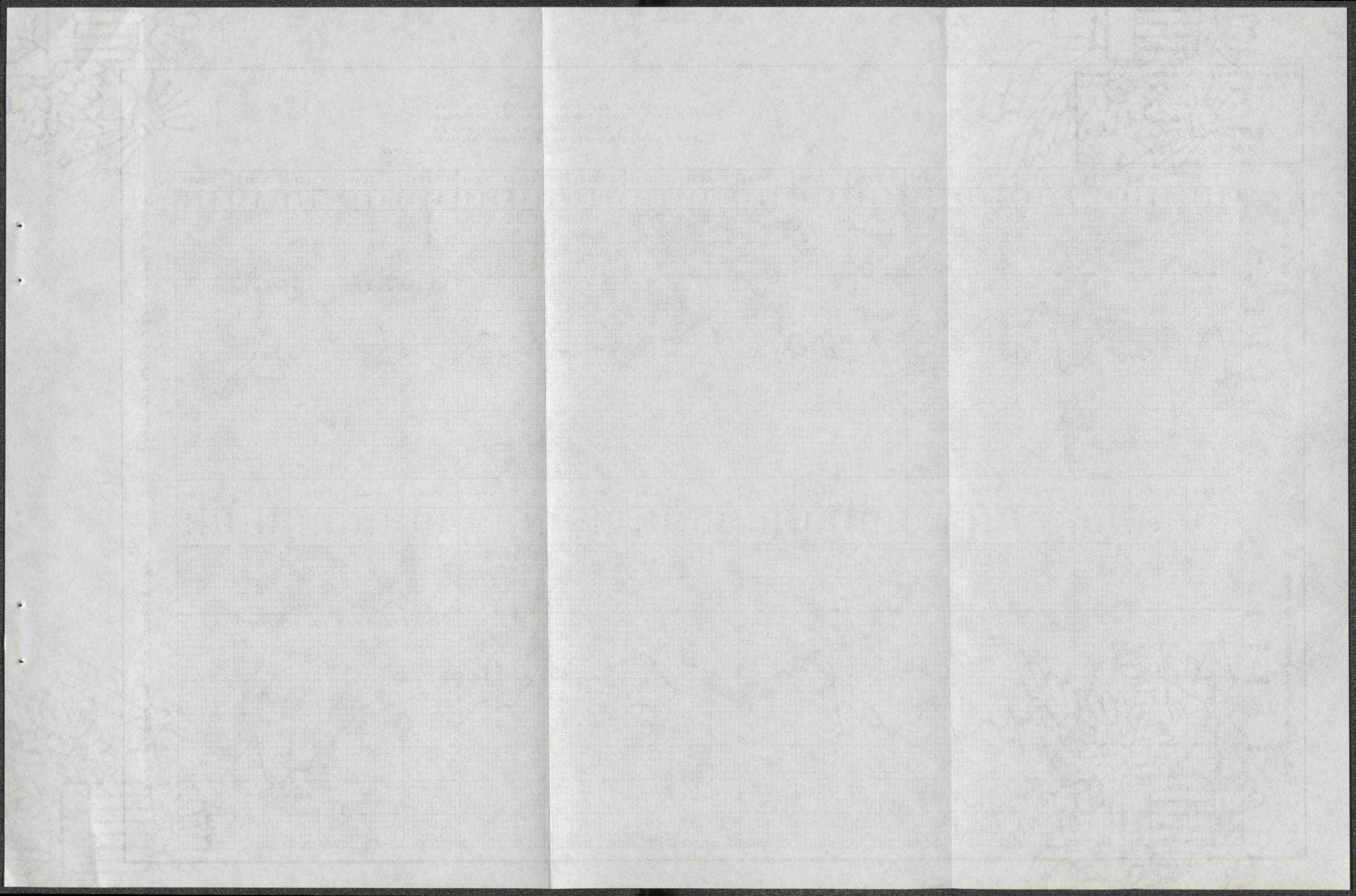


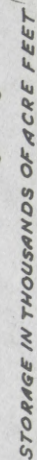
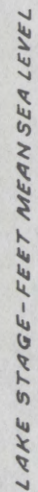
STORAGE IN THOUSANDS OF ACRE FEET

NOTES

HYDROGRAPH REPRESENTS MEAN LAKE
STAGE ON LAST DAY OF MONTH
STORAGE VOLUMES REPRESENT AVAILABLE
STORAGE ABOVE MINIMUM POOL ELEVATION

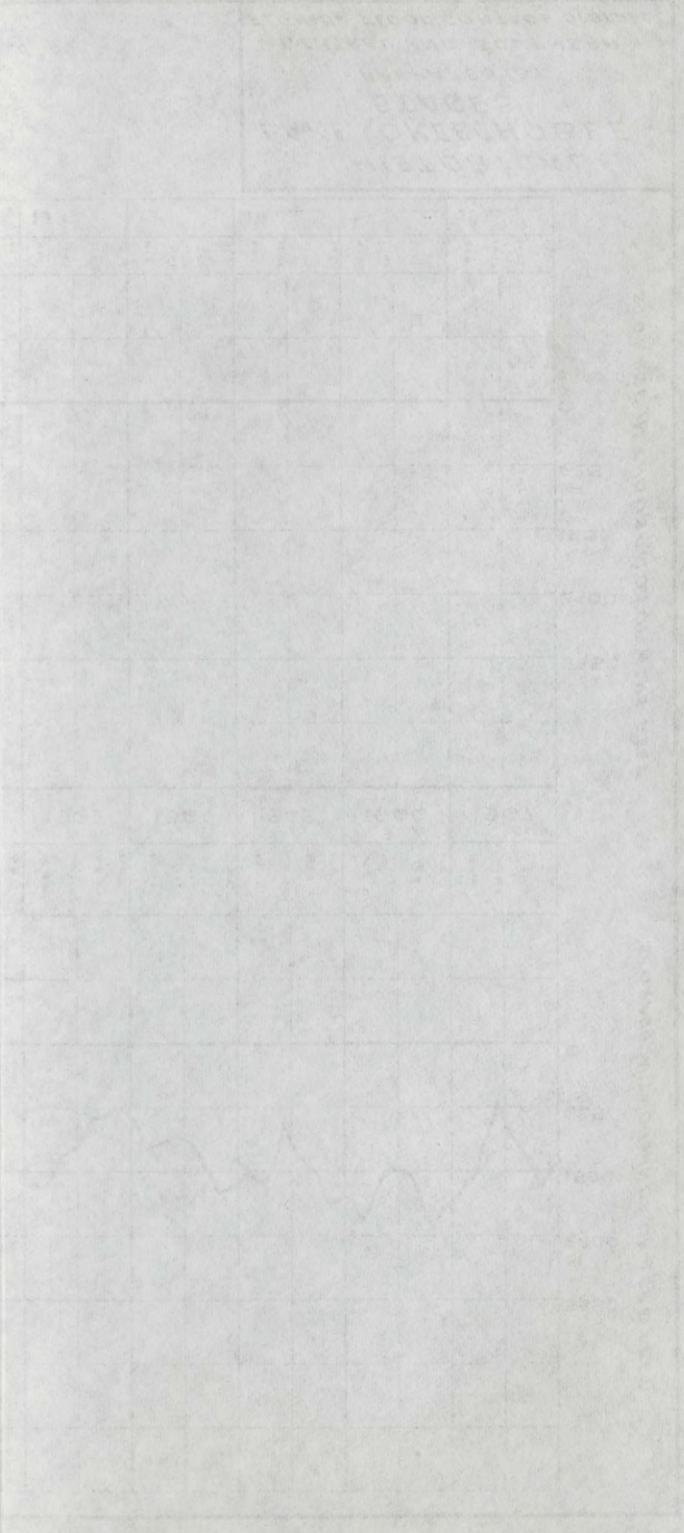
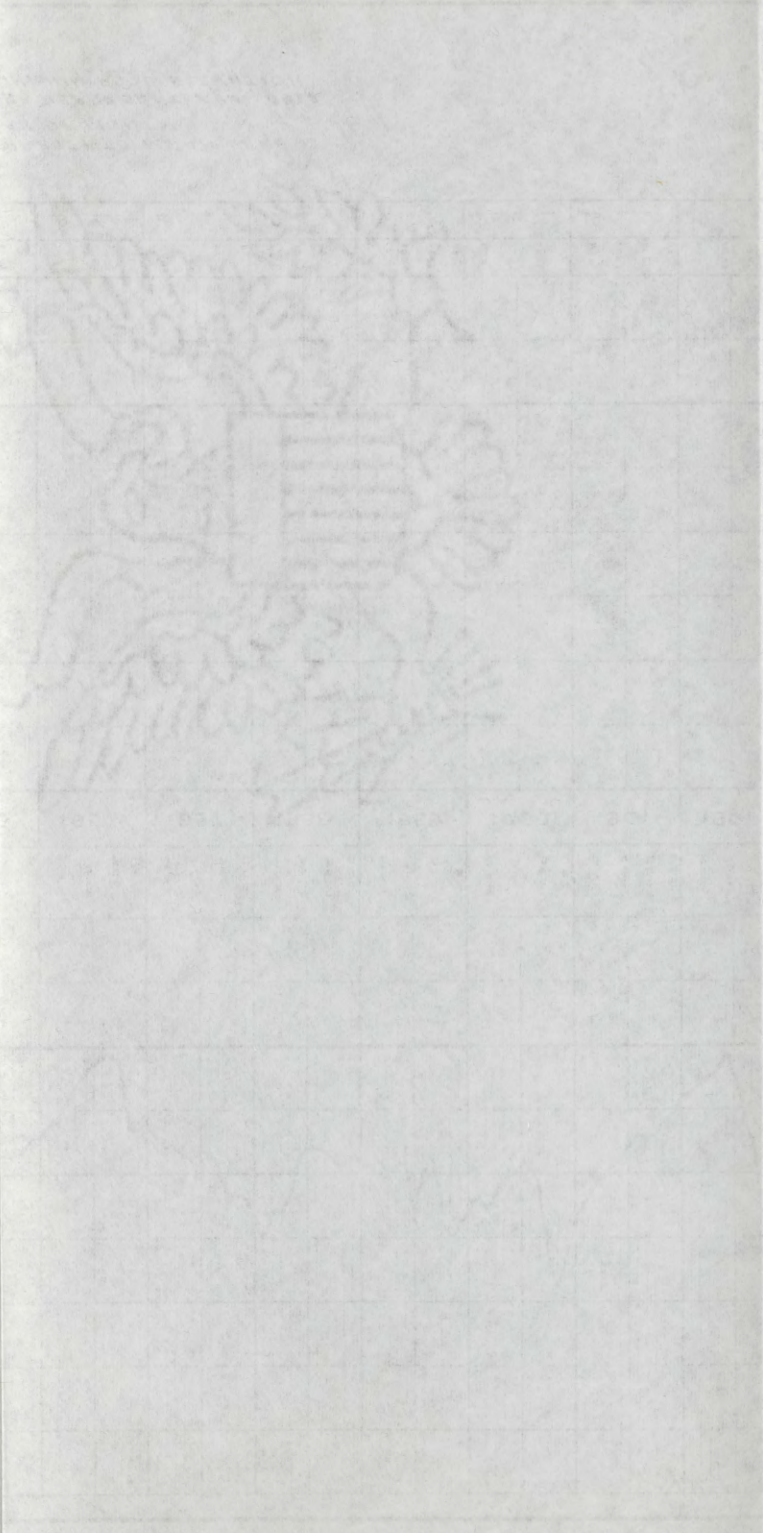
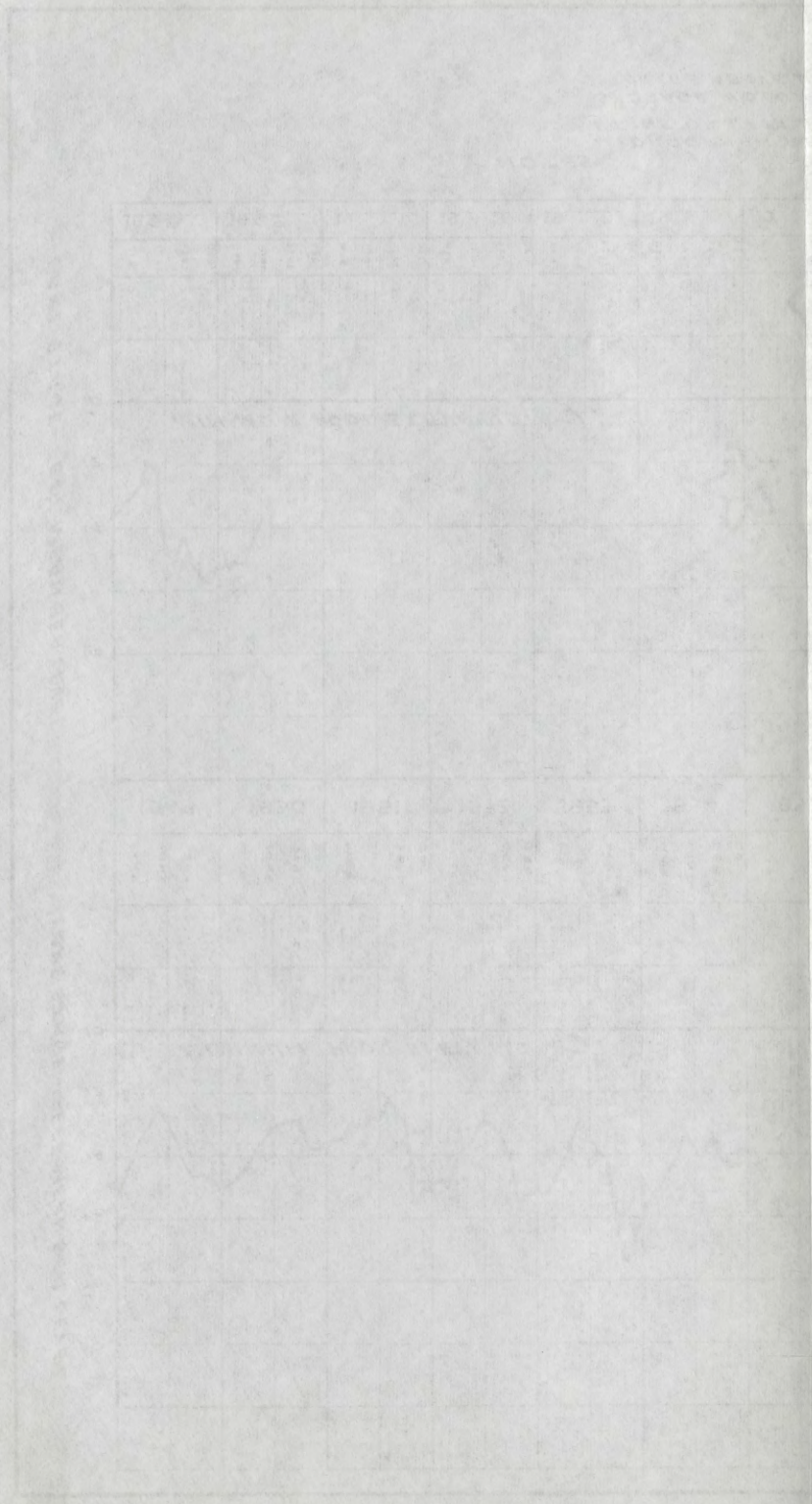
HISTORICAL
LAKE OKEECHOBEE
STAGES
PREPARED BY
CENTRAL AND SOUTHERN
FLORIDA FLOOD CONTROL DISTRICT

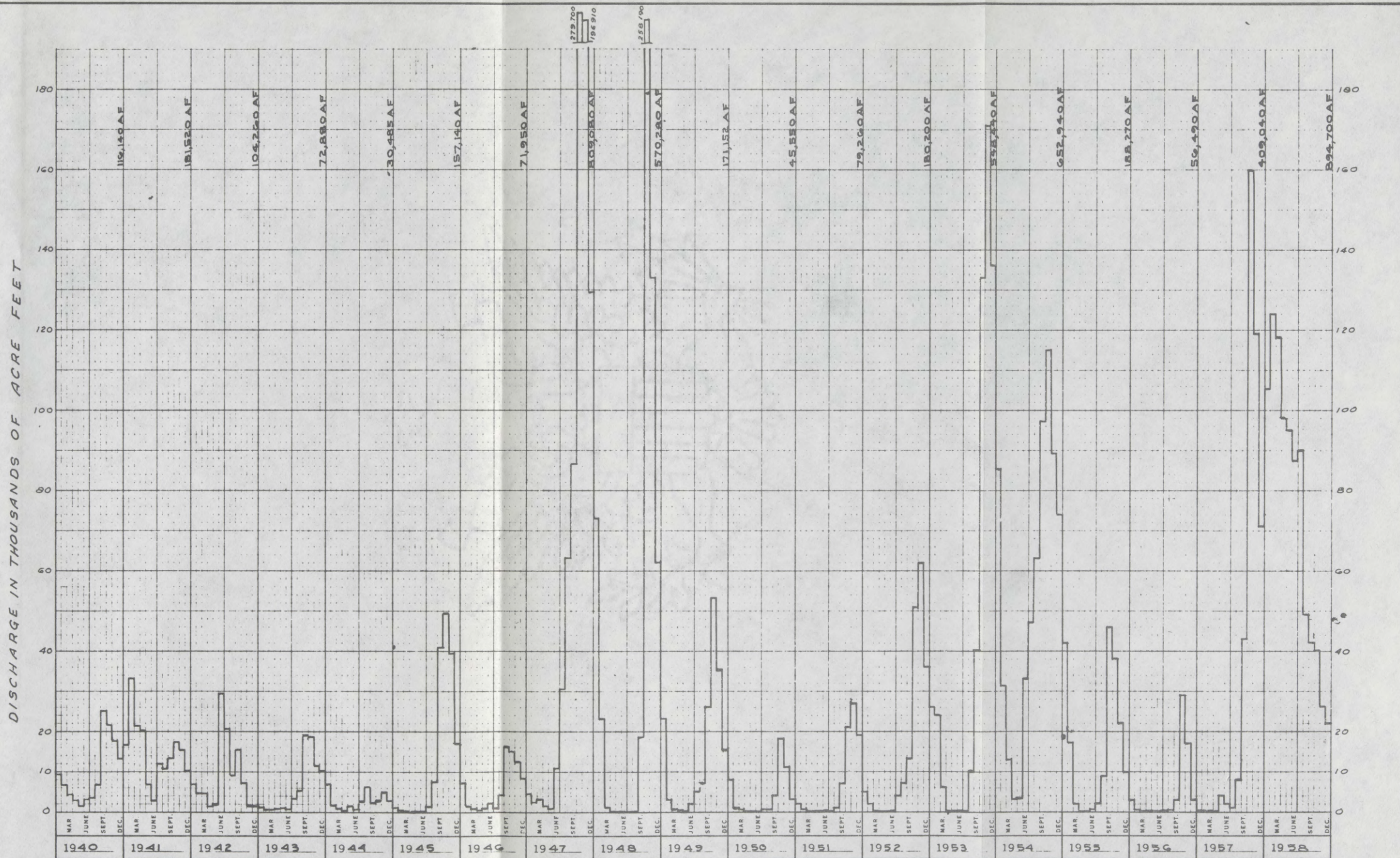




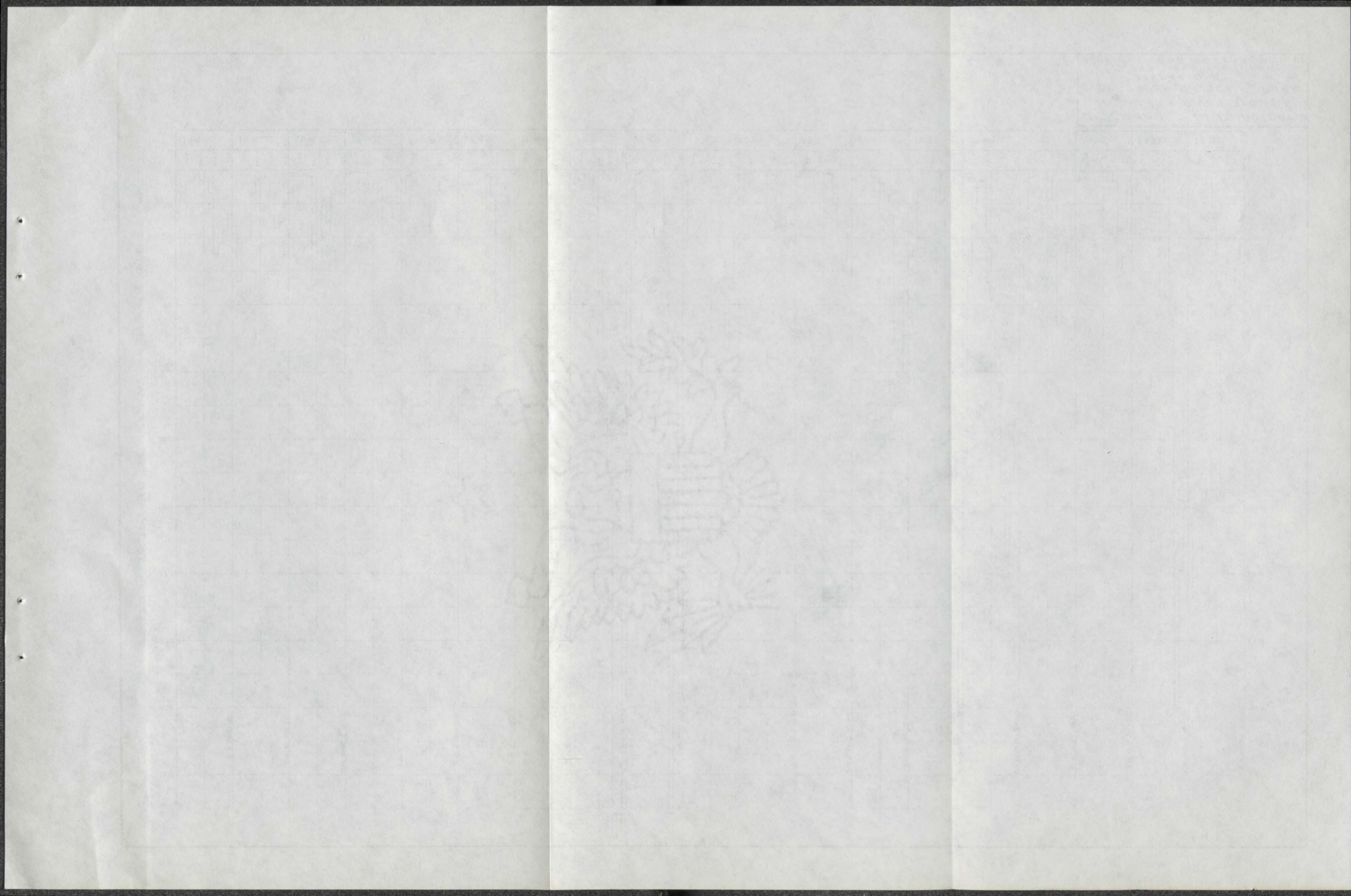
STORAGE IN THOUSANDS OF ACRE FEET

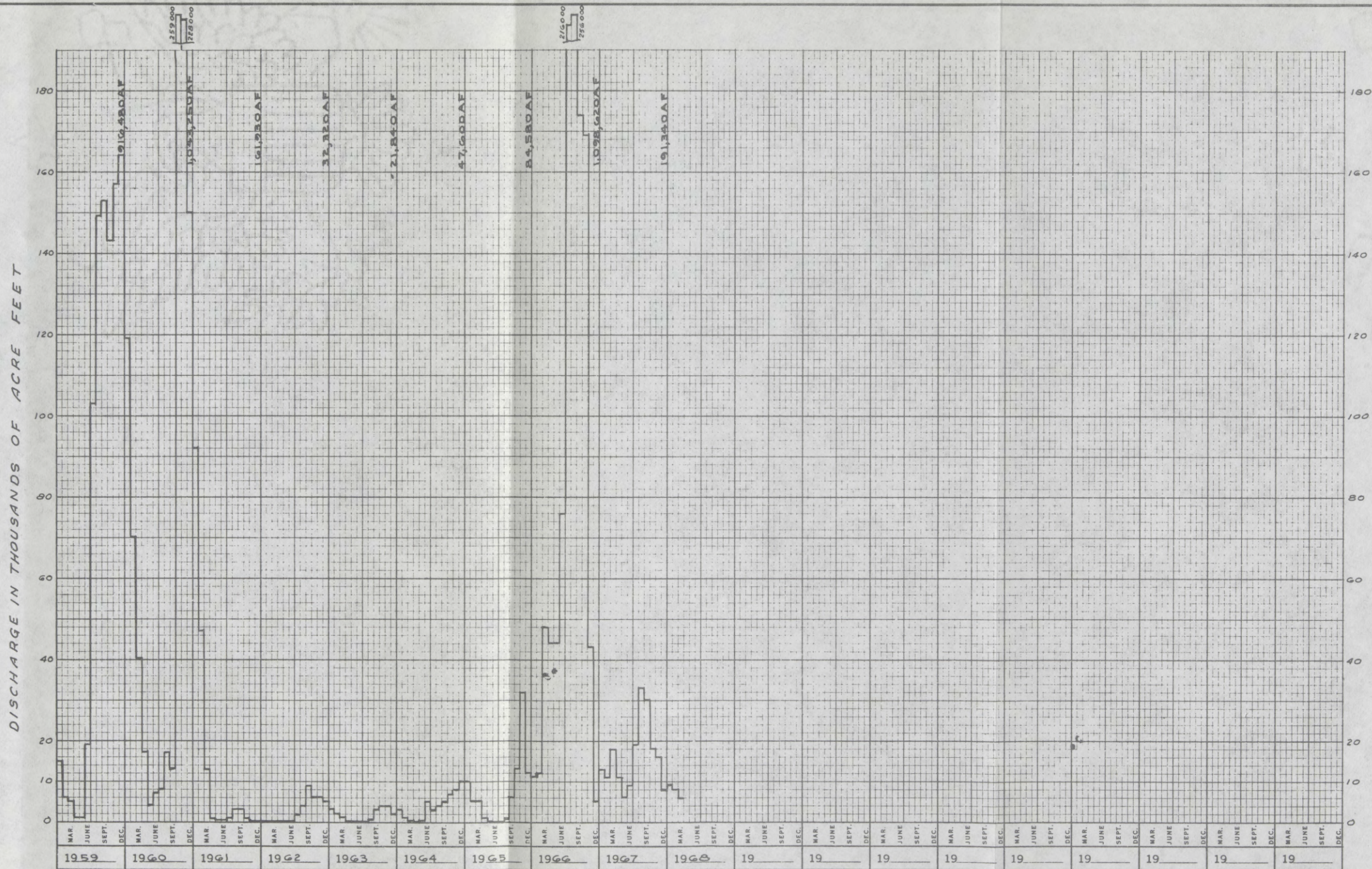
*HISTORICAL
LAKE OKEECHOBEE
STAGES
PREPARED BY
CENTRAL AND SOUTHERN
FLORIDA FLOOD CONTROL DISTRICT*





DISCHARGE CONTRIBUTORY
TO SHARK RIVER SLOUGH
EVERGLADES NATIONAL PARK
PREPARED BY
CENTRAL AND SOUTHERN
FLORIDA FLOOD CONTROL DISTRICT





DISCHARGE CONTRIBUTORY
TO SHARK RIVER SLOUGH
EVERGLADES NATIONAL PARK
PREPARED BY
CENTRAL AND SOUTHERN
FLORIDA FLOOD CONTROL DISTRICT

Handwritten notes in the top left corner of the left page, including the word "Habitat" and some illegible scribbles.

Handwritten notes in the bottom left corner of the left page, featuring a small diagram with horizontal lines and some illegible text.

Handwritten notes in the top right corner of the right page, including the word "Habitat" and some illegible scribbles.

Handwritten notes in the bottom right corner of the right page, including the word "Habitat" and some illegible scribbles.

CENTRAL AND SOUTHERN FLORIDA
FLOOD CONTROL DISTRICT,
West Palm Beach, Fla., November 5, 1968.

HON. JAY W. BROWN,
Chairman, State Road Department,
Tallahassee, Fla.

DEAR MR. BROWN: On October 31, we attended a meeting at the 4th District Headquarters of the State Road Department in Fort Lauderdale to discuss planning for either a proposed extension of Interstate 75 and/or toll highway plus a transportation corridor from the Dade County Port Authority Training Airport in eastern Collier and western Dade Counties to Metropolitan Miami area. During the course of the last eight to ten months, we have met with representatives of the Dade County Port Authority on several occasions relative to the establishment of the new airport and other facilities associated with it. In each instance, representatives of this District have stressed the need to preserve the integrity of water Conservation Area #3. We have opposed consistently other crossings of this conservation area from east to west and have asked that any access highways or other transportation facilities be along the alignment of either the Tamiami Trail (U.S. 41) or Alligator Alley (Everglades Parkway). Our reasons for this are simple and clear-cut. Any additional crossings by public facilities tend to weaken our ability to preserve this water storage area which provides the primary recharge for the Biscayne aquifer as well as providing surface water for Metropolitan Dade County and Everglades National Park. In addition, this conservation area is a wildlife management area of the Game and Fresh Water Fish Commission and serves upward to over one million people a year for hunting, fishing, and other recreational needs.

At that meeting, we were, for the first time, confronted with a plan which would route a limited access highway through the middle of the airport property and thence eastward through our Conservation Area some eight or nine miles north of the Trail thereby doing precisely that to which we are most opposed. Previously, on October 11, Mr. Judy of the Port Authority told me "Just a line on a map, it is out, not being considered"! I am attaching a map indicating the proposed route that would sever the lower part of our Conservation Area #3. The alleged purpose for the severing of our Conservation Area is to "save six minutes" on approximately a 50 mile trip from the airport to the downtown area of Miami.

This District feels just as strongly as the Everglades National Park about public improvements of this type severing its conservation area. We feel that an acceptable plan for routing such a transportation corridor along the Tamiami Trail alignment and immediately to the north of it as suggested by our Chief Engineer is a reasonable alternative. Further, of course, we are unaware as to the necessity of any limited access highway from the west coast going through the training airport. It had been our thought that such a highway would, on its east-west run, parallel and be juxtaposed to the Tamiami Trail.

As Chairman of the Governing Board and representing that Board, I felt it desirable to immediately advise you officially our complete opposition to any proposal which would serve to further fragment Conservation Area #3. We will, of course, be pleased to enter into discussions with appropriate public bodies on this matter at anytime.

Very truly yours,

R. W. PADRICK, *Chairman.*

ROBERT W. PADRICK,
Fort Pierce, Fla., November 5, 1968.

I wish to alert you to a situation which is causing me great concern, as it involves needless destruction of natural values of the Flood Control District's Everglades Conservation Area #3.

We have held discussions with the Dade County Port Authority over the past several months relative to its establishment of a 39 square mile airport complex in western Dade and eastern Collier Counties abutting on our western perimeter levee of this Everglades Conservation Area. We had believed that we were going to be able to work out a satisfactory arrangement for a transportation corridor between that airport and Metropolitan Miami. We had assumed that such a corridor would be immediately adjacent to the existing Tamiami Trail which separates our Conservation Area from Everglades National Park. Such a location for a transportation corridor would minimize loss of natural values and would

strengthen our ability to preserve the integrity of this large and unique section of the Everglades which, as you know, is a most important water storage area, a primitive wildlife and unique outdoor recreation area used by over a million people a year.

At a planning meeting October 31, at State Road Department offices in Fort Lauderdale, we were rudely awakened to the fact that the transportation corridor which is, presumably, to include among other things an extension of Interstate 75 from Tampa to Miami is being planned to go through the middle of the airport property and thence directly east severing again a large and important segment of this Conservation Area and if implemented, forming a sort of Chinese Wall, which will destroy the many values for which this area has been preserved. The alleged purpose for the severing of our Conservation Area is to "save six minutes" on approximately a 50 mile trip from the airport to the downtown area of Miami. I am attaching a map showing the proposed destruction route as well as a copy of our official position.

I feel so strongly about this that I personally am writing you and other articulate and knowledgeable conservationists and asking that you assist us to ensure defeat of this abominable proposal. As Chairman of the Flood Control District Board, I think I can say that this District will officially continue to oppose this proposal but I feel that it needs all the support it can receive from interested private citizens if the defeat of this proposal is to be ensured. I recognize as I know you do that progress is inevitable and requires accommodation but I will continue to raise my voice when the supposed economics of progress dictate needless destruction of natural values.

I have met with the Governor's Assistant for Natural Resources and three of the Cabinet Members. They have indicated approval of our suggested alignment along Tamiami Trail.

May I have your support.

Very truly yours,

Senator NELSON. Your plan for delivery aims at accomplishing delivery of 280,000 acre-feet into the park from area 3, is that right?

Mr. PADRICK. 260,000.

Senator NELSON. In what way could an agreement be reached so that with any subsequent administrators these would be assurances that the policies that you favor would be continued?

Mr. PADRICK. I think, sir, whatever agreement we reach today at best is an interim agreement and will have to be reviewed as soon as our storage facilities are increased by the 2 additional feet. Today we are operating at a maximum of 15½ feet. We think we can do this under the present resources that we have available. We would suggest that as soon as this present construction is over, that this matter be again discussed and new agreements reached.

We call this an interim, interim agreement waiting until we can complete the construction of the levees to bring it up to 17½ feet. So really, if we reach an ironclad agreement today, it would have to be reviewed again in the next 2 years because of the difference in our storage capacity.

Senator NELSON. From the park's standpoint, the increase in the capacity of the lake should do nothing other than increase the assurance that they can deliver 260,000 acre-feet.

Mr. PADRICK. At the same time you peg it to some other arbitrary figure that will shut it off. It is my present hope that we would never cease discharges into the park.

Senator NELSON. I am confident that that is your position, but that might not hold for someone who might follow you.

My point is that as we increase the capacity of the lake, there will be increasing demands because of the growth in Florida, which is natural enough. I think it is necessary to have some kind of guarantees

that even with increased demand, delivery to the park would still be made.

In other words, you ought to be able to give an even firmer guarantee of the 260,000 acre-feet after you get the next 6 feet on that levy, unless the policy would be to give preference to growth by municipalities or agriculture.

Mr. PADRICK. That, sir, I believe was covered in the water resources development plan where the various agencies submitted their comments and the Governor recognized that the obligation of the park was an obligation of the State of Florida and had to be met along with the other obligations of the State of Florida.

Again I am a little above my head now when I speak for the Governor or the board of conservation. I can only assure you that the flood control district and its staff recognize these are valid requirements and obligations of the district to meet and we must, by wise management, meet these requirements along with the requirements of the city of Miami for their municipal water supplies and the other users around the State, sir.

Senator NELSON. That is the key point I am getting at. General Cassidy, if I understood him correctly, said an agreement has not been reached, and he does not feel that it is necessary at this time, and he also feels that if we wait until the big squeeze is on we could then reach agreement. I don't buy that.

All I am saying is we are increasing the capacity of the project, and the recognition of the park's rights should be equal to that of any other users.

Now, if you had a city that required 315,000 acre-feet, you would guarantee it to them; that is, equally against the highest demand of any other user.

I am saying that this is what the park needs. If some growth occurs, as it will, and the danger is that in order to meet the demands of growth, the future managers of the water will say, "Well, this growth occurred here and now we can only guarantee 200,000 to the park because this municipality needs that other 115,000." This is my concern.

Mr. PADRICK. I share your concern and I might point out again the 315,000 acre-feet is based on a historic record and not on an ecological record. The Park Service now is making an ecological survey or study to determine what their requirements are from a biologic standpoint rather than from a historic standpoint.

When they complete their biologic studies they might be meaningless. They might be more or they may be somewhat less. I am somewhat worried that, if we continue to put 1 million acre-feet of water into the pipe, they will come to us and shut off the water. When they do that, I am in as much trouble as during the period when I do not have the water available.

So this entire thing will have to be restudied, based on the biological studies they are making in the completion of our work.

Senator NELSON. In 20 years of public office, I have yet to see the first case of a sharp, important clash between economic interest groups and conservation interests in which the conservation interest won.

Mr. PADRICK. I might point out the route from the jetport we are winning. I would be terribly disappointed if we lost that one.

Senator NELSON. The history in this case has been a domination by the economic growth argument or the profit argument and these have always been much more powerful than the conservation argument. So I would be worried, waiting on some settlement 10, 25 or 30 years away in which you are really presented them with a bill to complete. The people will be there and they will come first and the birds next.

Mr. PADRICK. That is true, sir, but again pointing with pride to our district, concerning the television tower they made a very impassioned plea that millions of viewers would get better TV reception and whatnot and we successfully resisted that.

At first they wanted to put the jetport in the middle of the conservation area and we resisted that. I believe it is a different picture today from what we had 10 or 20 years ago. Certainly what happened in the past I would agree with and it is true but with the assistance of able Members of the Senate in the legislatures such as yours, we are not permitting that to continue to happen.

Senator NELSON. This is not in your area but do you know how many acre-feet of water is used by the agricultural areas above conservation areas 2 and 3?

Mr. STORCH. In a normal year, the average supplemental water use in this area amounts to about 11 or 12 inches per acre. I do not have offhand the number of acres which are under irrigation in this area but very definitely it has a very good rule of thumb in an average rainfall year. That is that supplemental irrigation requirements will average about 11 or 12 inches per acre per year, 1 acre foot of water per irrigated area per year.

Senator NELSON. Is my understanding correct that that agricultural area is a peat soil area?

Mr. STORCH. Yes; peat and muck soil area.

Mr. PADRICK. It is approximately 400,000 acre-feet per year in the Everglades farming areas.

Senator NELSON. Do you have any monitoring of what nutrients from fertilizers and what pesticides are coming from the agriculture area into conservation area 3?

Mr. PADRICK. This is somewhat of a new field to us along with the other States. We do have a program that has been initiated already to do monitoring of our water supplies and the water quality. We recognize that quality and quantity run together. The Lake Okeechobee study is being made with the U.S. Geological Survey.

Mr. STORCH. We have a nutrient study, not a pesticide study, that we started this year in Lake Okeechobee. This is being done in cooperation with the Geological Survey. We have involved the offices of the FWPCA in Atlanta for a portion of this work and we are also receiving cooperation from the State board of health.

In terms of pesticides monitoring we initiated a program 2 years ago with the USDA, rather intensive monitoring in a tract of land in the agricultural area. This was a combination of truck crop and sugarcane land and another one up here in this county, a typical citrus grove operation associated with the monitoring that we were doing on the land, in the water, in the settlement, and we are also doing some sampling in conservation area 1 and also in this area in a private storage reservoir.

Senator NELSON. Do you have any results of those studies?

Mr. STORCH. We just received the past year's results in the past week and I have not reviewed the report yet. We are now in our second year of this.

Senator NELSON. Is this report in summary form?

Mr. STORCH. It is simply a memorandum type report which was submitted by the plant pesticide control people to us along with our memorandum of understanding to them. It is not a published document in terms of a final report. It is simply a summary memorandum report listing the findings of the various materials for which they sampled. That has not been finalized.

Senator NELSON. Was that study just a water study or have they been doing some tissue studies on birds and fish?

Mr. STORCH. There have been no biological studies. We had hoped this year, in cooperation with our State game commission, that we could have gotten into some biological studies. We hope to get into it next year. We did not do it this year. The sampling that we are doing is on the plots themselves in the agricultural areas themselves.

In the secondary drainage canals, the on-the-farm drainage canals and our primary canals, there are no biological samples associated with this.

Senator NELSON. You are perhaps aware that to the surprise of everyone, the recent study of the Bald Eagle in the park found eggs with high DDT concentrations. We had always been told they did not have it down there. I do not know where it is coming from.

Mr. PADRICK. I might add, sir, I believe we are the largest user of DDT of any State in the Union.

Senator NELSON. I am trying to stop that if I can get my bills passed.

You maintain your conservation area is both a storage area for water as well as wild life preserve, is that correct?

Mr. PADRICK. Yes, sir.

Senator NELSON. If the water in Lake Okeechobee is low and it is needed in the park, do you release it?

Mr. PADRICK. We shall share it in adversity, but I should point out, sir, that that is not likely to occur because of the porous condition of the conservation area. It is more of a demand area actually rather than a storage area. It maintains a hydraulic effect by its storage but a storage in the conservation area is very limited at its best.

Certainly if the condition were to exist, if the lake were low and if the conservation area were full and the park needed water, certainly we would share the adversity with them. From a practical standpoint that is not likely to occur.

Normally what happens is the park gets dry, the conservation area gets dry and Lake Okeechobee declines. I would not be giving you a true picture if I did not point out that that is not likely to occur.

Senator NELSON. Are you aware of any other alternative airport sites to the current one?

Mr. PADRICK. Yes, sir.

Senator NELSON. What would they be?

Mr. PADRICK. The ones you discussed this morning have been suggested. Again, I am no expert on airports. I found that out when I got into this thing, but the one just north of conservation area 3 very

reluctantly area 2-B, we like to consider that as our conservation area, but that would be for a determination other than our board, sir.

Senator NELSON. You have control over 1-A, 1-B, 2-A, 2-B?

Mr. PADRICK. Yes, sir; all of that is part of our million-acre playground.

Senator NELSON. There is a canal across conservation area 3?

Mr. PADRICK. Yes, sir.

Senator NELSON. So, they could avoid discharging any gases or detergents or DDT they used above that conservation area?

Mr. PADRICK. I think the same problems would exist wherever the commercial airport is located. I believe they will require the same biological and ecological studies wherever the airport is located. The only thing is that you move it farther from the national park and you have a safety factor in there of spillage or anything else that might happen.

I feel the same information is necessary, the answers to these 119 questions, wherever the airport is located.

Senator NELSON. If it were on State-owned land above conservation area 3, that is a short distance from, I believe, Highway No. 27; is that correct?

Mr. PADRICK. That is correct.

Senator NELSON. So you avoid the problem of building another big structure between your area and the park?

Mr. PADRICK. Yes, sir.

Senator NELSON. Is it possible you could intercept the water that runs across the top of area 3?

Mr. PADRICK. You could, but it would still have to go into our areas to get the water for the south. That is why we would require that the nutrients and so on be removed before they went into our conservation area. If they go in there, ultimately they will wind up in the park.

Senator NELSON. La Crosse is the nearest community to the State-owned land?

Mr. PADRICK. There are small communities around there within 30 or 35 miles, sir.

Senator NELSON. Where do they discharge effluent?

Mr. STORCH. Their discharge is into our canal system and into Lake Okeechobee.

Mr. PADRICK. These are very small towns.

Senator NELSON. How far is it from those State-owned lands to the coast?

Mr. PADRICK. It would be from 35 to 45 miles depending on which area you were going to.

Senator NELSON. Thank you very much. I appreciate your testimony.

Mr. PADRICK. Thank you very much, sir. I certainly appreciate the opportunity of being with you.

Senator NELSON. Our next witnesses are Mr. William W. Gibbs, general counsel, Dade County Port Authority, accompanied by Mr. Paul Boatman, consultant, Dade County Port Authority.

The committee appreciate very much your patience in waiting so long to be heard. We appreciate your taking the time to come here. Your statement will be printed in full in the record and you may proceed to present it in any way you desire. Identify yourself for the reporter.

STATEMENT OF WILLIAM W. GIBBS, GENERAL COUNSEL, DADE COUNTY PORT AUTHORITY; ACCOMPANIED BY C. H. PETERSON, HOWARD, NEEDLES, TAMMEN & BERGENDOFF, CONSULTING ENGINEERS, ORLANDO, FLA.

Mr. GIBBS. Senator Nelson, I am William Gibbs, general counsel, Dade County Port Authority. Mr. Boatman, who expected to be here, was taken ill yesterday. Here on my right is Mr. Carl Peterson, of the firm of Howard, Needles, Tammen & Bergendoff, the authority's consulting engineers. He will supply answers, I trust, to those questions that you may wish to ask.

If I may proceed, I would like to read a statement on behalf of the Dade County Board of County Commissioners acting as the Dade County Port Authority.

In 1945 the Florida Legislature, by chapter 22963, laws of Florida, granted to those counties of Florida having a population of over 260,000, and their respective governing bodies, the boards of county commissioners, certain powers additional to those granted to counties of the State generally.

When exercising such additional powers, any qualified board of county commissioners was authorized, for administrative convenience, to designate itself as the "county port authority."

Among the additional powers granted were the powers to acquire, construct, develop, and maintain airport facilities both within or without the territorial boundaries of the particular county. Dade County, being qualified under the legislative act, elected to exercise the powers granted.

In 1945, its board of county commissioners designated itself as the "Dade County Port Authority" and has since that time acquired, developed, and operated airport facilities in Dade County, the primary facility being the Miami International Airport located some 6 miles from downtown Miami.

In addition, the port authority operates three airports within Dade County, known as general-aviation airports, for the use of private aviation interests as opposed to commercial airlines which use Miami International exclusively.

Among the operations conducted at Miami International are training flights for flight crews of the commercial airlines required by both the airline companies and the Federal Aviation Administration. These flights account for approximately 40 percent of all takeoffs and landings at the airport and during 1967 amounted to some 145,000 operations.

The original impetus for the creation of a training airport derived from public objection to noise and impending air space congestion at Miami International Airport. To reduce noise complaints all jet training activity has for some time been prohibited from 10 p.m. to 6 a.m. This has necessarily resulted in direct conflict between daylight training flights and peak commercial activities, thus aggravating the problem of air space congestion.

Projections of air traffic at Miami International, both commercial and training, convinced the authority of the imperative need for a separate training facility.

Formal site selection studies for such a facility began in 1965, and continued for over 2½ years. Among numerous sites suggested, 17 were carefully considered as a group effort on the part of the Federal Aviation Administration regional office, the port authority and the affected airlines.

These sites included locations in Georgia and the Bahamas as well as Florida. Investigation narrowed to five proposed sites within the Everglades and north of the Everglades National Park. Three of these were ruled out because of objections of the National Park Service as to one and of the Central & Southern Florida Flood Control District as to the other two.

Senator NELSON. Which were they?

Mr. GIBBS. One was east and north of the national park, Senator, which last described the boundary between Monroe and Dade County, the No. S3.

Senator NELSON. Down in the southeast corner?

Mr. PETERSON. It is right in this area [indicating].

Mr. GIBBS. Of the remaining sites one, lying wholly in Monroe County, became unavailable when unrelated demands for a land trade were encountered.

Senator NELSON. Where was this?

Mr. GIBBS. Wholly in Monroe County. They felt they needed to trade land in Dade County. This was not wholly acceptable and for that reason the site was not accepted.

Senator NELSON. Where on the map is that?

Mr. PETERSON. It is down in that same area.

Senator NELSON. Southwest?

Mr. PETERSON. This is the boundary for Monroe County here and it was on down in this area here [indicating].

Mr. GIBBS. The fifth site, ultimately selected lies partly in Dade County and partly in Collier County, and its nearest point, the southeast corner, is slightly more than 6 miles from the closest boundary of the Everglades National Park.

In July of 1968, with the acquiescence of Collier County, eminent domain proceedings were instituted in both counties. Under an order of taking entered in each proceeding, Dade County was vested with the title to 27 square miles of land in Collier County in September of 1969 and an abutting 12 square miles in Dade County the following month.

Construction of the first of two training runways began in September of 1968 and is scheduled for completion by September 30, 1969. This runway, 10,500 feet in length running east and west, is positioned approximately 1 mile north of and parallel to the south boundary of the airport property.

Its easterly and westerly ends are 2 miles within the east and west boundaries of the airport respectively. The second runway parallel to the first will be 1 mile north.

All of the facilities presently proposed for construction relate to training functions. In addition to the runways proper, parallel taxiways will serve each with a connector spanning the 1-mile separation. Aircraft aprons will serve parking needs and light maintenance as required.

A permanent hard surface access road, now under construction, will provide ground vehicle ingress and egress from U.S. No. 41. Borrow lakes being excavated at proper criteria distance from runways will also serve drainage needs and recreational purposes.

Clearance of growth to provide sight lines, fence and canal security lines for flight operations area and general area improvements are also planned. Proposed structures include FAA airport traffic control tower, a combined operations and field maintenance building to house offices, maintenance equipment, rescue equipment and temporary control tower operations, an electrical vault with full auxiliary power, water plant and sewer plant. All Federal, State and county pollution control regulations will be observed by including appropriate water, sewage and industrial waste management.

Policy of the Dade County Port Authority with regard to the development of the Dade-Collier Airport: The Dade County Port Authority has expressed by resolution and now reiterates its real concern and determination that the development of the Dade-Collier Airport will proceed only with in-depth attention to planning, surrounding land use and the use of every measure to maintain as balanced an interrelationship as may be possible between the Everglades animal and plant life and the existing environment.

It would be folly, however, to assert that a commercial airport could be imposed upon the Everglades area without dislocation of existing ecological factors. The port authority does believe that the development of a two-runway training airport may be accomplished and may be operated with a minimum of such dislocation.

Indeed, the controlled and guided development of such a facility by a sincerely motivated governmental agency will go far in demonstrating the extent to which any pollutive effects upon the environment may be suppressed.

The authority has wholeheartedly endorsed the position statement of the Izaak Walton League of America with regard to the Dade-Collier Airport which concludes as follows:

This planning, if done, could be a real boon to south Florida. Much of the lands concerned area in private ownership . . . the inevitable piecemeal development of this area could achieve precisely what the 19 national societies hope to avoid—namely, destruction and pollution of a portion of Everglades National Park. It is therefore, obvious that talk of moving the jetport is only a reprieve for Everglades National Park and the environment of South Florida. Permanent solutions can only come from a sincere effort toward environmental control. We ask that the port authority join us in our stand.

The port authority has already undertaken environmental studies not only by its own staff and its consulting engineers but in cooperation with State and Federal agencies. No development of commercial runways and passenger terminal facilities will be commenced until a satisfactory environmental master plan for the site is completed and implemented by the construction of all necessary control facilities and the enactment of laws and regulations governing the use of the airport.

The development of such a master plan, and indeed, much of its implementation, if a satisfactory plan can be developed, must be the result of a joint effort on the part of all interests concerned.

To achieve this the authority has sponsored preliminary meetings attended by representatives of the following Federal and State agencies and private interests, among others:

- National Park Service.
- Federal Water Pollution Control Administration.
- U.S. Fish and Wildlife Service.
- U.S. Public Health Service.
- Bureau of Indian Affairs.
- Federal Aviation Administration.
- Federal Air and Water Control Commission.
- Department of Transportation.
- U.S. Geological Survey.
- Bureau of Outdoor Recreation.
- U.S. Corps of Engineers.
- Office of the Governor of Florida.
- Central & Southern Florida Flood Control District.
- Florida Game and Fresh Water Fish Commission.
- Florida State Planning Office.
- Florida Board of Conservation.
- Florida Air and Water Pollution Control Commission.
- National Audubon Society.
- Collier County Conservancy.
- Dade County Conservancy.
- Izaak Walton League.

As a result of these meetings committees have been established for an environmental study program covering ecology, hydrology, wastes and water, social impact, environmental study coordination, and standards and enforcement.

The authority is also cooperating fully in the development of a tri-county planning council consisting of representatives of Collier, Monroe, and Dade Counties (in each of which a portion of the Everglades National Park lies) under the authority of chapter 160, Florida Statutes.

This council when established will seek means of guiding and controlling the development of all areas peripheral to the Dade-Collier Airport site. Such an objective is considered of equal importance to any development of the airport site itself. The problems of peripheral controlled development offer substantial problems not present in the case of the airport area since the lands on three sides of that area are privately held, largely in small tract ownerships.

It is timely to note that as recently as June 2, 1969, members of the boards of county commissioners of all of the three involved counties and their planning officers met under the chairmanship of director of the Florida State planning Office and took the necessary action to insure the prompt establishment of the tricountry planning council.

In conclusion, the Dade County Port Authority urges that those agencies and interests knowledgeable and concerned that our natural values be preserved share their knowledge and experience with it, so that if a commercial airport in the Everglades is found to be tolerable in its environmental effects on the area, any dislocation will be minimal.

The port authority subscribes to the belief that both conservation and private enterprise have major roles in the reasonable development of this country. Conservation must be practiced vigorously but practiced positively. By the same token, public bodies, regardless of their power, must not, in their efforts to provide desired economic growth, be permitted to adopt a negative attitude toward conservation. A balance must be attained if the proper and prudent development of the Dade-Collier Airport is to take place.

The Dade County Port Authority believes that this balance can be achieved.

Senator NELSON. Thank you.

Were not the director and deputy director of the port authority available?

Mr. GIBBS. I am sorry they are not. Mr. Stewart, the director of the Dade County Port Authority, was attending by coincidence, the graduation of his only son from Tulane University yesterday, and today is at his marriage in Montgomery, Ala. I am awfully sorry he could not be here, but this was an arrangement that could not be changed.

The deputy director is in Zurich, Switzerland, attending an international meeting. I hope one or both of them will be able to appear before this committee at its next hearing, if possible, on the 11th of this month. I understand that the hearing previously scheduled for tomorrow has been changed to that date. It may not be convenient for you to hear them but I want to apologize for their absence and I trust my explanation is satisfactory.

Senator NELSON. If the chairman, Senator Jackson, desires their appearance, they will come.

Mr. GIBBS. I might also say the Dade County Port Authority has transmitted to Senator Jackson, as chairman of this committee, an urgent and warm invitation for the convening if possible of this committee in the area about which we are involved here today.

I hope that this might be possible. Certified copies of this resolution went to Senator Jackson about a week or 10 days ago. I trust the committee will consider this request.

Senator NELSON. Thank you. I am sure the chairman will consider your request.

In the answers to the questions that were submitted by the Central & Southern Florida Flood Control District (see pp. 69, 74), the port authority stated that the project was a viable one just as a training strip. Is that correct?

Mr. GIBBS. Yes, sir. It is my recollection it was stated it would be viable as a two-runway training activity.

Senator NELSON. As a training strip, how many flights do you anticipate daily?

Mr. GIBBS. The figures I gave in the statement were 155,000 for the year 1967. While I do not have the 1968 figures exactly, I understand they were substantially reduced last year, perhaps in the neighborhood of 85,000. I don't know what creates a rise and fall in these training flights. That is a matter I presume the airlines would best know.

There are regular periodic training flights for all pilots at 6-month intervals and transition training flights for new aircraft and that type of thing. I would assume that the 155,000 might be a maximum figure.

I might say that the training flights would be on a 24-hour basis unless they were so few that they could be accommodated in daylight hours. Perhaps Mr. Peterson might have some comment on that.

Mr. PETERSON. Yes. I think the answer to the drop in the training flights in 1968 over 1967 was the enactment of the regulations by the port authority that no training flights would be allowed between 10 p.m. and 6 a.m.

Therefore, the training flights had to go to other fields and they went as far away as Georgia to accomplish these training flights.

I was in a meeting recently with Captain Byers who is head of training for Eastern Airlines. It was his opinion as soon as we are able to open up this one runway, it will immediately be operating at capacity and that we can anticipate an immediate need for the second runway solely for training purposes.

Senator NELSON. Are these training flights equally distributed throughout the week?

Mr. PETERSON. Normally you will find the airlines will schedule their aircraft to fly on commercial flights during peak travel periods and they will schedule the training on offpeak travel periods. This goes through a rather complex analysis to get the maximum efficiency out of each aircraft.

Senator NELSON. How many flights would that be a day?

Mr. PETERSON. We would anticipate that all of the flights that have left Miami International because of the restrictions that have been promulgated will return and that we will probably be starting out at somewhere around the 150,000 per year level initially. This is something on the order of 400 flights a day average.

I would say that we would probably have peak days of 550 to 600 and the low days somewhere down around 300. This is either one landing or one takeoff as a flight operation.

Senator NELSON. Those flights are east-west?

Mr. PETERSON. The runway is oriented east-west, that is correct, Senator.

Senator NELSON. A substantial percentage of them would have take-offs and landings from approaches going over the park or conservation area 3; is that correct?

Mr. PETERSON. No, sir. What will happen will be the instrument approach will be on the west end of the runway now being constructed. The east end of the runway is 2 miles west of the east boundary. The aircraft will, in most of the instrument approach operations, come down to within 150-200 feet of the ground and then pull up and make a go-around. Occasionally they come in and land or touch and go but mostly it is just to come down on instrument flight path to determine the captain's proficiency on instrument approach.

What they will do, as soon as they are up at the 500- or 600-foot level is make a slow climbing turn of 180 degrees and this will be accomplished within a width of 2 to 3 miles. I would anticipate the downwind leg of their pattern will be somewhere on the order of 2 or 3 miles south of our south boundary and not over the park.

They will then travel on to the west as much as perhaps 15 or 20 miles where they will make a procedure turn back to the east and at that time endeavor to intersect the beacon and come in again for another instrument approach.

Senator NELSON. At what height will they fly over the park?

Mr. PETERSON. These are the normally commercial flights and they are up in the 10,000-15,000 feet range over the park.

Senator NELSON. Are you saying these training flights will not be over conservation area 3 or over the park?

Mr. PETERSON. I will not say absolutely they will not be over the park or over the conservation area. There will be times when we will have heavy congestion and they will have to be sent out to holding patterns.

I am simply saying the normal pattern is to come down the normal instrument path to get within 150 or 200 feet of the ground and go-around, make a touch, and make a landing and go into the temporary parking apron, change crews and then the airplane would take off again.

Senator NELSON. If that is the case, why couldn't an agreement be made between the port authority, the Interior Department, and FAA that flights over the park and conservation area 3 would not be lower than some set level?

Mr. PETERSON. I think this is probably something that could be looked into. This would probably have to be done under the purview or aegis of the air traffic control people. As soon as the airplane gets off the ground, the air traffic control of the Federal Aviation Agency is then responsible for the safety of the aircraft whether it is on a regular flight or a training flight and they would have to be the ones who would have to make that determination.

Senator NELSON. FAA takes the position that they do not have authority to establish height limits for safety. That has been their response to the Park Service on this question.

Mr. PETERSON. I think I can assure you that the Dade County Port Authority does not have such authority.

Senator NELSON. Would the Dade County Port Authority be agreeable to establishing some height limit that was sufficient to protect against the intrusions of all kinds of noise areas into these areas?

Mr. PETERSON. I see no reason why the port authority would find those regulations objectionable from its point of view of its obligations and responsibilities.

Senator NELSON. 400 flights a day are a lot of flights and you can hear jet engines from a longway. Though the jetport is not within conservation area 3 or the park, it is still in what is known as the Everglades. It seems to me that 400 flights a day flying close enough to the ground so that they are being heard and viewed substantially degrades the environmental quality of the area.

Mr. PETERSON. I am sure you realize the lateral noise is substantially less than the fore and aft noise on these aircraft and because of the peculiar pattern they will be traveling, it just so happens it does better accommodate the ecological conditions than if the runway were oriented in another direction.

I might also point out when the second runway is built, it will be built to the north and then the pattern will be to take off, turn to the

north and the downwind leg will be 2 to 3 miles north of the runway and this will be further removed from the park area.

Senator NELSON. Is the port authority prepared to discuss this question of flying pattern and height with the Park Service or the Interior Department?

Mr. PETERSON. They would be glad to discuss it but this is the responsibility of the Federal Aviation Agency people. The en route air traffic controllers are the people who plot all of these courses and give these routes to the airlines to operate in and by and large the airlines operate in them.

Of course, there is cooperative discussion between the airline operators and the FAA with regard to that but our primary concern is not what happens with the aircraft after it gets up in the air. Our primary concern is the hardware on the ground and being able to live with our neighbors next to our landing area.

Senator NELSON. What number of personnel will be required to service, supply, maintain, and operate the training area?

Mr. PETERSON. I am not speaking now of noise pollution but I am speaking of water pollution. We simply fail to understand it completely.

First of all, let me say that for the one runway out there, we are clearing about 400 acres out of the 25,000 acres of land that is acquired. We are going to pave about 80 acres so in terms of the total ecological change in the land, as far as what we are doing physically to alter it, it is a very, very small thing.

As far as personnel is concerned, in reply to the question that was offered, the answer is there would be 10 people. I would say that is on the low side. There may be somewhere between 10 and 25. We have to have a few people in the control tower and we have to have a few people at the fire and crash station. We are going to have to place a firetruck out there. There may be a few airline people routinely there. There will probably be a transient population, pilots waiting to get aboard to go through their training and that sort of thing, and it may be as many as 25 to 50.

As far as the problems of the pollution at this airport, as a training airport now contemplated, I tell you as an engineer there are absolutely none. We will handle everything in a way that there will be absolutely no measurable problem at all.

There are no plans at the present time for fueling or maintenance. It is conceived that the aircraft will leave Miami International Airport where all of the fueling facilities are located, go out, take their training, return to Miami, and go off on a commercial flight.

Senator NELSON. You are not saying you have any equipment which is better than a secondary treatment plant?

Mr. PETERSON. I am not saying we have any special genius for treating sewage; we will apply whatever standards are required by the State health department. We will meet the quality standards for water. There is no way they can set up quality standards that are absolutely impossible to meet because this is impractical on the face of it.

But in the total change as far as the waterflow, as far as the runoff from the rains and this sort of thing, we are not going to alter a thing. We have culverts spaced all along the runway structures that are going

to maintain almost identically the same pattern of flow that now exists.

Senator NELSON. Of course, you will have runoff gasoline?

Mr. PETERSON. No; I have heard this mentioned here and apparently it is a matter of substantial concern to everybody, but when you consider the 400,000 to 450,000 commercial operations we have in Miami each year, this means 200,000 aircraft parked on our ramp and we rarely have a fuel spill. We have installed all the necessary equipment such as big rubber air-operated flotation dams to intercept whatever floating debris there is. We go to quite an extreme in controlling our storm water coming off Miami International to make sure what we put in the Miami River is tolerable.

I went out to a little backwater on Miami Airport recently and saw one of the largest, most beautiful grey herons take off and there was a 3-foot alligator living right in the pond, so we can't be polluting that bad. I visualize our pollution environment at Miami International as being 100 times worse than what I foresee at the training airport.

Senator NELSON. You say so long as it is a training airport with 10 or 20 or 30 or 50 people, you do not visualize that as being a serious pollution problem?

Mr. PETERSON. That, sir, is my best advice to you.

Senator NELSON. If it were later expanded into a jetport, and if a large community grew around it, I don't guess there would be any dispute about the pollution problem. I understand that at the May 17, 1968, meeting, the port authority talked about a tremendous community going up there. I notice Florida Trend magazine quoted airport director Allen Stuart, "A new city is certain to rise around the new jetport in the Everglades being planned at Dade County." How do you visualize the pollution problem that will confront the development of a substantial city around the airport?

Mr. PETERSON. I think we would be derelict in our duty to our client if we did not point out the future of this development. I have been at the Miami Airport since 1955 and since 1958 I have personally advised them that the day is coming when the 2,700 acres we have at Miami International Airport simply will not be large enough to accommodate the public demands being made on this airport. We have to have additional airport capacity in the south Florida area.

With the nucleus of this training airport it seems to make sense to us to point out the possibility of expansion to this larger commercial facility in the future.

The Dade County Port Authority has, as a matter of policy, agreed that it would not undertake to build or to expand into this full commercial facility unless the complete gamut of ecological studies were run through and it was found that it could be done as a good neighbor to all of the other features and amenities that there are in the area.

As far as the development of the township, this is off the airport and this is why the three-county planning commission was set up yesterday. This is their responsibility. It is above the level of the Dade County Port Authority to accommodate it, but the Dade County Port Authority, within 39 square miles for which they are responsible, will do what has to be done in order to accommodate the ecology of the area if it is possible for humans to accommodate it.

Senator NELSON. On page 16, the annual report of the Dade County Port Authority for fiscal year 1968 says, "Present plans call for the completion of the facility and its transformation from strictly a training field to a commercial facility by 1980 but there is talk of accelerated development and possible completion between 1975 and 1980 depending upon when adequate ground transportation facilities are provided and if the airline users desire accelerated development."

It is pretty obvious that it is the intent, and the planning of the port authority to develop a commercial port.

You state of course, correctly, as I understand it, that the port authority has jurisdiction over 39 square miles. Perhaps, and I say just perhaps, it is possible the port authority could control the pollution out of that area although I would have great doubt about it. I would just doubt, for instance, that even with all possible controls within that 39 square miles that you could possibly avoid serious air pollution.

But certainly the fact that building of the airport there would induce tremendous growth. No there is not much reason for anybody to live or build there but once you have created this economic resource you are going to develop a community. Service industries and all kinds of factories will come, electronics people who want to be close to air shipment will build, schools would be built. The result would just be tremendous growth.

There is nothing I know of within the scope of our current technology that would make it possible to refine either industrial or municipal wastes sufficiently to avoid introducing into that environment massive amounts of pollutants. We do not have the technology to remove all of the gases and oils.

But just by definition and current knowledge, a big port there is going to be a big polluter, is it not?

Mr. PETERSON. You are right in your conclusions as to where we sit at the present time, but I should point out over the past decade or two, we have gradually improved our ability to take care of these pollutants and I would look forward, during this next decade while this commercial facility is being developed, if it is to be developed, to an advance in the technology on pollutants where we could do something about it.

I was involved in a very, very serious pollution problem on a TNT plant back during World War II and we took the refuse material, evaporated it and took the sludge and burned it. It was exceptionally expensive but this got rid of all of the pollutants. There are no economical means available to us now but I have every confidence in the engineers and people concerned with pollutants. More and more emphasis is being brought to bear on pollution problems every day. I think we will find ways to bring these things about. If we don't have that competence, it is not just the Dade County jetport but our whole country that is in trouble.

Senator NELSON. Well, it is. My concern is to prevent trouble where we don't want it introduced.

Would you agree that at the present state of the art with respect to sewage and industrial waste, it would not be feasible to put in the commercial jetport if the intention was to avoid substantial pollution in the area?

Mr. PETERSON. What you are, in effect, saying is 10 years from now there will be 50 million people and a jetport at this site. How are we going to take care of the pollution? This is the problem you are giving the engineer. I don't think an engineer would properly take care of it today in any other way than to get the material, whatever the polluted material was, down to an absolute minimum concentration and then either truck it or pump it or otherwise transport it to a safe area and dump it.

With the volumes of water we are talking about, this is a real problem. But I see no reason why we can't develop polishing ponds where we can dump this water in, let it evaporate and oxidize.

There are all kinds of means that an engineer with a little ingenuity and forethought can think of. But basically we do not have the input today. We need to find out what the input is. FCD can't tell us. The park people can tell us we want distilled water and nothing worse than that dumped on them but we all know this is impossible. There has to be an acceptance level. There has to be a minimum—I guess I should say in this case a maximum—level of pollutants which can be accepted without creating harm and this is what has to be determined. Once that is determined, then it is up to us to roll up our sleeves and develop the processes.

Senator NELSON. If we were going to follow the rather modest guidelines of the Water Quality Act, you would not be able to discharge effluent into this area under those definitions, that is, that you not reduce or degrade the current quality of that water. In other words, if you have a trout stream, it is classified at a certain temperature which is necessary for a trout to survive, and a municipality may not discharge anything into that stream that lowers the quality of that water.

If it is an industrial river, certain standards would be set for it and you would require the industries and municipalities to meet that standard and introduce nothing in there that would reduce that water below that standard.

By general definition the standards today would require that the equipment used by the municipality or the industry meet the highest practical current standards of the art.

As to the water in the Everglades, you would violate any standard of that kind if you introduced the purest effluent we are able to refine with the best secondary equipment we have.

In other words, you would be reducing the quality of that water.

Mr. PETERSON. I would have to respectfully take issue with you on the problem. We do not know the quality of the water going through there. We can't sit here and presume that the water going through there is totally unpolluted. There are things in the woodland that tend to pollute the water supplies and, when I say pollute, we think of it as a very bad way, but they do admit impurities and certain ingredients into the water as it passes. Then it becomes a question of what is the quality of the water that now exists, what is the quality of the water that the ecology is used to and can tolerate and can we furnish a water of equal quality that is viable and the ecology can equally accommodate. These are the facts we need to know and, hopefully, the studies that are going to be undertaken will develop this.

Senator NELSON. It is true, of course, that nature introduces certain things into the water itself, but this is a case of artificial introduction

of a nutrient which in massive amounts can have a rather dramatic effect

All I am saying is would you not agree that at this stage in history we have not achieved a sufficiently high status of the art so that you could introduce the effluent from the secondary treatment plant in massive amounts without polluting the water by any standard?

Mr. PETERSON. It would be my position if we were given this as an engineering problem to solve, we would know what the economic capability of our client to spend money to solve the problem was. If we could demonstrate that we could solve the problem within his economics still getting in a totally viable project out there, we would then actually go to work and develop a way to do it.

I don't think there is anything engineeringwise, biologically or otherwise that is totally impossible to resolve. It is just a question of the will to do and the economic demands that it be done. The status of our present ability to control and to handle pollutants is determined solely by our economic needs to do so. We do it to the point where it is economically necessary—and we don't go beyond.

I can't talk to a single developer in south Florida and say: you should put in three times the amount of equipment you need to get by to meet the minimum standards of the board of health.

Senator NELSON. Let us assume for a moment that your client could and would spend the necessary money to refine all pollutants that would be discharged from a large jetport, and that in fact you could do it and further, could meet the water-quality standards that would be set by conservation area 3 or by the park.

Let us assume you could do that. What do you do about the much more massive pollution problem from the tremendous growth in the area outside the jurisdiction of your client?

Mr. PETERSON. I would have to turn that over to the planning council. The port authority has to stop at the 39-square-mile boundary of its area. I agree with you—if we put a large commercial airport out there—cities probably will develop, but they, in turn, must be controlled. Any city that is built out there, Senator, I can assure you is going to have to have a very, very complete and a very complex water control system.

That land is not of a character that you can simply go out and build a house on and not expect to get it flooded periodically unless you put in water controls. This is something we know and understand quite well in Florida. We have a very expensive community in Plantation, Fla., just west of Fort Lauderdale. It is strictly an artificially water controlled community. Come the rainy season they pump out into the canals and come the dry season they pull water back into the drainage ditches in order to maintain ground water to support vegetation and that sort of thing.

This is something that people in Florida do know how to do and that they would do in this area. As a part of the total water control picture, they would simply have to install whatever protective devices are required to insure the continuity of the Everglades Park.

I don't think anybody in Florida wants to see the Everglades Park degraded or diminished in any way. Everybody thinks it is a wonderful thing and they want to see it remain in perpetuity.

Senator NELSON. I am sure this is true, but I have noticed that the planners and developers of America, which are usually the real estate operators, have great concern about the beauty of the countryside, pollution, and everything else, but they also have the profit motive, not that they aren't very nice people and not that some developments aren't high quality, but who is going to assure that all development is well planned? Where is the power? We don't have it here in Washington. The port authority does not have it. The State will say it doesn't have zoning authority and the county will say it won't or can't zone because it costs too much. Up goes a city and the one who has the power to do something about it will not do it. We find this all over the country—it is almost uniformly the case.

Mr. PETERSON. I think you will find if you investigate—and I have had occasion to do it recently—they have good zoning regulations on the books and good subdivision regulations on the books and also that they will not permit plats to be filed—which means they cannot give a warranty deed for a lot that they sell—until they have actually planned the improvements that the counties require and either have actually installed the improvements or have bonded themselves to do this.

The regulations with regard to subdivisions and developments are definitely toughening in Florida, of this, I can assure you.

Senator NELSON. I have no doubt there are some very fine developments. However, have you recently flown over or taken a boat trip out from Everglades City into this area and seen the houses on stilts? There is obviously no effective zoning. They are selling lots here to builders in England and South America. They are talking about building cities out in the middle of this area. It is already an ugly sight. It is rapidly developing. I see no evidence of any effective zoning whatsoever. I have not seen anything any worse anywhere else in the Nation.

Mr. PETERSON. I think you have been aware as we have in Florida of the constraints that the Florida Land Sales Board has been putting on developers and particularly on this type of lot sale that you refer to. I don't think any of us in Florida like it particularly. I don't think we are real proud of it, but I can only say to you, sir, that we are becoming aware of its problems. We are becoming aware of the danger and the damage that comes from it and that they are actually taking sound and substantial steps to enforce better controls and better regulations.

Unfortunately, what happens when you start making more difficult and more restrictive regulations, you tend to inhibit development and expansion. To some extent, this is one of the reasons why we have the rather phenomenal demand for real estate and properties that we have in Florida at the present time.

Senator NELSON. Because of what?

Mr. PETERSON. Because we are so restrictive in our permits that we give developers to develop new lands. I just heard a complaint from Mackle Bros. who are developing Marco Island which is one of the most beautiful communities existing in the United States today. They are unable to get approval for bulkhead lines to expand this community to the point that they feel is right and reasonable.

Senator NELSON. Who has the zoning authority in Florida?

Mr. PETERSON. The counties do the zoning.

Senator NELSON. The city and the municipality has zoning authority too?

Mr. PETERSON. If it is within the city or municipality, it becomes the responsibility of the city.

Senator NELSON. What is to stop them from not having very high standards?

Mr. PETERSON. The trend has been to higher standards. This is all I can tell you. Specifically there isn't anything, I would think, to prevent a city council from simply promulgating new subdivision regulations that were, in effect, no regulations and no zoning at all and simply do away with it, but that is not what is happening.

What is happening is that they are becoming continuously more restrictive in all of their actions and this is true of all of the communities, all of the counties, all of the cities in Florida.

Senator NELSON. Would you not agree in order to be certain about it that before any action was taken to convert this port to a commercial port that a zoning plan be prepared and adopted?

Mr. PETERSON. This is precisely the objectives to which the new three-county planning council formed yesterday is going to address itself. If they do not address themselves to that objective, then there is no reason for their existence.

Senator NELSON. You would agree then that this port should not be converted to a commercial port unless there were very good, strict zoning restrictions that in fact did protect the park against pollution?

Mr. PETERSON. The Dade County Port Authority has agreed that it will not proceed with the development of this airport as a full commercial airport until it can be clearly proven that such development will not have an adverse effect on the Everglades Park.

Senator NELSON. Who makes that judgment?

Mr. PETERSON. That has been stated repeatedly in meeting after meeting and has been pronounced by the County Commission of Dade County sitting as the Dade County Port Authority. They have said they will not do this until these studies are made and until it is proven that the facility can live as a reasonable neighbor to the park and to the other facilities in the area.

Senator NELSON. But the final judgment of the matter is still going to be the port authority?

Mr. PETERSON. That is correct.

Senator NELSON. And the port authority obviously has made up their mind that that is where they want to build?

Mr. PETERSON. That they want to; that is correct.

Senator NELSON. And even if the biologists and ecologists and park people strongly felt their standards were not high enough, they would go ahead with the port if they were satisfied?

Mr. PETERSON. I don't agree, Senator. I think the Dade County commissioners are thinking positively and they will, in some way, develop this facility as the full commercial airport. I think they are thinking they will put in whatever restrictions and whatever constraints and whatever controls are necessary for it to live as a good, compatible neighbor with the park. This is my personal judgment of everything that has been said and everything that appears to me to be in their ambition.

They want to be good neighbors. They want to live and do right and they are going to bend every effort they can to bring it into that focus.

Senator NELSON. Let us assume that that is their intent, and they do. I still must make the point that a large community there is going to be a polluter by all of the standards that we now have. I know what the argument will be: We are now meeting the highest status of the art; we are requiring a secondary treatment plant that will take out 85 percent or thereabout of the nutrients; this industrial plant has the best equipment there is, and even if it is going to be dumping acid or dumping something else, it is meeting the highest status of the art. If they are doing everything that can be done under present technology, that will in effect be the standard.

If that is the case, and the technology is about the same 5 years from now as it is now, then you are going to pollute the park.

Mr. PETERSON. If it can be clearly shown that the properties of the Dade County Port Authority, which again is all we have within our jurisdiction, if those properties are clearly demonstrated to be polluting and harmfully polluting the Everglades Park, I would be absolutely certain that the Dade County Port Authority would take whatever steps are necessary to remove that problem.

Senator NELSON. Before I would support any port there at all, I would have to have the same assurances for the area outside the jurisdiction of the port authority. That is the troublesome part.

Mr. PETERSON. This is where the three-county planning council has to take on its responsibilities.

Senator, if I might just for the record, there has been some discussion of money. At the present time, the port authority has sold a \$52.5 million bond issue. This is for development of the training port to build the first runway and also for improvements at Miami International Airport. The total cost of the training airport is estimated at \$10 million and a total Federal contribution to date is half a million dollars.

We are grateful for it, we are not going to send it back, we are going to make some applications for some additional funds if, hopefully, we qualify. We want to make a good facility. We want to put in all of the improvements that are necessary.

It was mentioned that we were a very affluent facility, that we were making lots of money. We think we have a good facility, a good, sound financial facility but I would insert in the record that at the present time we are bonded to our maximum capacity and we do not have any room for any additional financing. This is a matter of concern to us particularly if the initial runway on the training airport becomes overloaded and starts out to demonstrate undercapacity. We then have another \$6 million runway that we have to find some financing for somewhere and build.

Senator NELSON. I did not quite understand that.

Mr. PETERSON. The bond issue was for \$52.5 million, \$10 million of the \$52.5 million going for the training airport to acquire the land and build the first runway.

Senator NELSON. What is the other amount for?

Mr. PETERSON. For improvements at Miami International Airport, an additional parking facility, an additional terminal. We have the 747 problem on our backs and we have to make a rather substantial expansion to accommodate it.

Senator NELSON. \$10 million is—

Mr. PETERSON. That is for the training airport.

Senator NELSON. That involves two strips?

Mr. PETERSON. That involves one strip and land acquisition. The strip itself is \$6 million and toward the strip, the FAA is contributing \$500,000 so far. As I say, there will be other applications coming along, hopefully favorably considered.

Mr. GIBBS. I would like to make a remark for the record, Senator. I think it was Mr. Reed who estimated the value per acre of land and used the figure of \$100 per acre for the acquisition of the 39 square miles. This must have been an inadvertent error. Our appraisal of the property averages \$150 an acre. We have settled with owners on a slightly higher basis giving them a small bonus.

The trials begin next June 9 on this land problem. We assume that the jury awards may possibly be higher than our appraisal. Every effort is being made by those property owners but property sales now unfortunately have risen because of the impact and publicity with regard to even the training facility.

Land out there, I am told, is selling for as high as \$300 an acre. I just mention these so the committee might have the benefit of these figures in estimating possible costs of land acquisition in the Big Cypress and those areas. The land is being sold in smaller areas, 2½ acres and it is being sold on speculation, speculation now as to what may occur with the airport complex.

Mr. PETERSON. I have a couple of other small changes to insert in the record.

Previously the air passenger level was stated as being 8 million. We had just slightly under 10 million in 1968.

Also, it was indicated that the construction of I-75 was dependent on the construction of the commercial airports. It is a completely separate matter. The training airport and the commercial airport is simply taking advantage of what is a predetermined fact—that I-75 connecting Tampa and Miami will be constructed through that area—and it is simply taking advantage of that fact to provide access. The road comes first even though we are building a training airport first.

Senator NELSON. Is the figure correct that 50 million passengers would be anticipated?

Mr. PETERSON. We have an FAA projection that goes through 1980 and it seems to me my best recollection is 35 million in 1980 and it does not take very many years at a compound growth rate of 12 to 15 percent to get to 50 million.

Senator NELSON. There is discussion here of the decision as to location. Why wasn't the State-owned land up near highway 27 above conservation area 3 acceptable as a site?

Mr. PETERSON. I think we need to go back and discuss this historically. As I said, the port authority statement indicates the formal investigation for the site started in 1965. On an informal basis it started in 1958. I personally participated in it so I am fully aware of it.

Broward County planned a new airport development across State road 84 from conservation area 2B and this failed to get local support. In 1966, Broward County went to flood control district and inquired as to the availability of conservation area 2B and was told it was not available—

Senator NELSON. Who owns it?

Mr. PETERSON. This is owned by a flood control district but it was Broward County that went and said we are ready to talk about our large airport. As a result Broward County has presently abandoned all plans for building a large airport facility. They are spending \$12 million on new terminal facilities at the Fort Lauderdale-Hollywood airport which is a single-runway airport. The economic facts of life will catch up with them very shortly under those conditions.

Then the study was taken up by Dade County seriously in 1965, and as has been said in the record, we were turned down on the first three sites, first by one agency and then another, and the urgency to build a training facility became more pressing with every passing day.

Time was just leaking out on us completely and I suspect that, what may have happened was that emphasis was placed on the action. There was a statement made earlier that there was no communication—I believe Secretary Train said there was no communication. This is not true. One of the sites was abandoned because of the objections of the park people. Two sites were abandoned because of rejections of the FCD so there had to be some communication for us to be aware of those rejections.

Senator NELSON. What is FCD?

Mr. PETERSON. Flood control district.

Senator NELSON. You were turned down on the first three sites?

Mr. PETERSON. Yes.

Senator NELSON. What were those three?

Mr. PETERSON. The one site is where I pointed out down there in Monroe County. Actually there was some juggling, some overlapping of sites and this sort of thing, but the Monroe County site was next to the park. The park people indicated that they definitely objected to it and it was abandoned for that reason.

Also, the next negotiations were not too satisfactory with Monroe County.

Then the other two sites were up in conservation area 3, and those were objected to by the flood control district. These were in Dade County.

Senator NELSON. The third conservation district?

Mr. PETERSON. Down in the lower end in Dade County. I will have to say to you, Senator, that outside of looking into Monroe and Collier County, Dade County did not look north of Dade County into Broward. We just felt there were too many exclusions being expressed by the flood control district to make any project up in that area viable. As far as the area being discussed up in the north part of the conservation area, the feeling was that this was simply too far from the center of population, too far from the origination of the air passenger to make it a viable location.

Senator NELSON. You are talking about the State-owned lands to the north?

Mr. PETERSON. Yes, sir.

Senator NELSON. How many miles is it from there to Miami?

Mr. PETERSON. I don't have the exact figures because I don't have that exact location. In view of the testimony offered I would like to obtain from the FCD exactly what that site is, and what has been proposed, so we may at least give it some further review at the moment.

We are also interested in the future. I am personally convinced that

after 1985, if we do build an airport now out here at the present site, it is still going to be approaching capacity about then and we are going to have to be looking somewhere else for another site. That is the nature of this business.

Senator NELSON. I had understood the State-owned land to be just north of conservation area 3, not far from Highway 27; is that correct?

Mr. PETERSON. This was offered in the testimony today. Frankly I will have to tell you it was a new idea to me. I had not been exposed to it previously.

The only sites that I had previously discussed or had anything to do with in this area was the one site right here on which we did make an official report in 1964 and then the discussions of this site here which is 2-B. I assume this area we are talking about is up here some place [indicating].

Senator NELSON. I don't know whether it is correct or not, but last week when I was down there one of the park rangers said that it was probably about 5 to 7 minutes, more distant than the present site. Could that be correct?

Mr. PETERSON. I think it is an excellent idea. I think the site should be looked at because I think there is going to be enough growth in Palm Beach County to accommodate that site completely and we will still be able to utilize the present site fully with the air traffic from Dade County.

Senator NELSON. If you can control the pollution?

Mr. PETERSON. Yes, if we can make everybody happy. This growth in air traffic is the most phenomenal thing that anybody could ever get exposed to and you cannot underestimate it.

Mr. GIBBS. Senator, if I may, I hope I have made myself clear, Dade County through the port authority has acquired the title to all of these 39 square miles. The money to pay for that has been deposited in the registry of the courts, respectively, in Collier and Dade Counties. We may have to add to it if the jury awards are higher than we anticipate, but we have acquired the land.

We are not permitted under the law to now say we don't want it. I do not mean to plead that we have to put in a commercial port just because we have the land. I just wanted to make the facts clear for the record, and that is we do own now all of the 39 square miles.

Senator NELSON. I believe you testified that the project is viable as a training site?

Mr. GIBBS. This is correct and this answer was given to a question posed by the flood control district.

Senator NELSON. I want to thank you gentlemen, very much. The next hearing date is tentatively set for June 11. If the chairman, Senator Jackson, changes that date, there will be an announcement and it will be in the Congressional Record.

Today's hearing record will be open for 10 days for the opportunity for submission of some of the statistics and material that we were told you have.

I would now like to place in the record an excerpt from the site selection report for the Miami Jetport and associated support facilities.

(The information referred to follows:)

SECTION II.—SITE SELECTION

Advisory Circular No. 150/5060-2, "Airport Site Selection", has been used as a guide in the preparation of this Section of the Report. Recommended procedures have not been strictly adhered to but several steps in the procedure will be apparent in the following text. The Report recommends a comparative analysis of site studies. The recommended site was arrived at through a process of elimination; therefore, the comparative analysis is not appropriate. The applicable selection factors contained in the Circular have been considered and are covered in the latter Section of this Report.

Site studies have been conducted as a group effort on the part of the Federal Aviation Administration Regional Office, the Dade County Port Authority Staff and the affected Airlines working through the Air Transport Association. Studies have been going forward for a period of almost two and one-half (2½) years.

Airport needs were adequately stated in the Air Transport Association memo of May 3, 1966, "Minutes of Meeting of April 19, 1966". A copy of this memo is included in the Appendix Section of this Report. Airport requirements and influences contained in this memo are summarized as follows:

1. An airport must be provided which can accommodate high density training operation on a twenty-four (24) hour per day, three hundred sixty-five (365) days per year basis.

2. It must have practically an unlimited life expectancy free of the limitations of noise complaints and resultant operational curtailment. This goal involves a remote location and hopefully, a lack of cultural development in its vicinity.

3. The airport must be located within reasonable distance of Miami International Airport since at the latter location there exist significant related adjuncts:

- (a) Ground Schools
- (b) Simulation Installations
- (c) Instructor Personnel
- (d) Flight Personnel Between Flights
- (e) Maintenance Installations Including Aircraft

4. The requirements of flight personnel for proficiency training and pilot check flights vary widely—from three (3) night landings, for example, to preparation for and actual six (6) months check.

5. The airport must be suitable for accommodation of advanced aircraft, starting with DC-8-61, soon the B-747, and later, the SST, as well as flexibility in case of future enlargement.

6. It can be anticipated that the existence of a suitable training airport will of itself generate increased training assignments.

A multitude of sites were considered at the initial meetings. Nine (9) separate sites were discussed. Two (2) were considered worthy of continuing consideration. These are Homestead Air Force Base and the Everglades in the vicinity of forty (40) mile bend, Route 41. Sites ruled unsuitable were:

Freeport, Grand Bahamas, St. Petersburg, Florida, Daytona Beach, Florida, West Palm Beach, Florida, Boca Raton, Florida, Navy, Sanford, Orlando, Florida, Immokalee, Florida.

Federal Aviation Administration studies of the two (2) selected sites are reported in the attached Air Transport Association memo of May 3, 1966. The memo states that Homestead Air Force Base was ruled unsuitable due to noise and other factors, particularly the all-night usage. Studies of a possible Everglades site were to continue. The memo also reports that several additional military sites were investigated at the request of General McGee, Federal Aviation Administration Administrator. These sites, Hunter Air Force Base, Savannah, Georgia, Turner Air Force Base, Albany, Georgia and former military auxiliary fields at Clewiston and Brooksville, Florida, were all found wanting.

Five (5) separate Everglades sites were studied. These sites are shown on Exhibit II, "Site Location Study". The sites are numbered corresponding to chronological order of study. The history of this facet of site selection work is as follows:

SITE I

This area was located at the easterly limit of the minimum separation distance from Miami International Airport as recommended by ATC. The site is wholly within Dade County and lies in Water Conservation Area No. 3 or lands controlled by the Central and South Florida Flood Control District. This agency was unyielding in their refusal to permit use of these lands for airport purposes.

SITE II

A new location was selected lying partly within Dade and Monroe Counties south and west of the original site selection. The site is satisfactory from a flight standpoint. The site is south of the water conservation area thereby removing objections of the Central and South Florida Flood Control District. Objections raised by the National Parks Service led to abandonment of further consideration of Site II.

SITE III

Because of objections of official agencies to Sites I and II a third location was designated. This site also lies outside of the water conservation area and it is further removed from Everglades National Park. The location is wholly within Monroe County. Attempts to negotiate for use of these lands with the Monroe County Governmental Officials were halted when unrelated demands for a land trade were encountered. These demands reinforced the previous decision to abandon Site II which would also encroach upon Monroe County land and ended any further consideration of negotiations with this County.

SITE IV

This location lies in part in both Dade and Collier Counties. It is outside of the water conservation area and well removed from Everglades National Park lands. Preliminary negotiations with Collier County Governmental Officials also encountered some resistance leading to consideration of Site V. At this time consideration of a fifth site was undertaken although Site IV was always considered to be the best. Later as shown at the end of the following paragraph the Site IV was approved and obstacles overcome.

SITE V

This location is all in Dade County. It is acceptable as far as the Park is concerned but it encroaches upon the water conservation area. It contains only eighteen (18) square miles and is calculated to serve the training function only. A tentative agreement was obtained from the Central and South Florida Flood Control District to use the lands provided replacement lands were secured and the Dade County Port Authority relocated the existing dike at its own expense. While these negotiations were in process, the Aviation and Space Council of the Metro-Miami Chamber of Commerce working independently with the Naples Chamber of Commerce were instrumental in securing an acceptable agreement with Collier County Authorities for use of Collier County lands proposed under Site IV. At this time consideration of Site V was dropped and Site IV officially selected by all parties concerned.

In the following text, site analysis factors recommended by AC-150/5060-2 are discussed as they apply to selected Site IV.

ANALYSIS OF SITE IV

Convenience to users

Airport users are airlines rather than the public. Proximity to Miami International Airport and availability of aircraft, crews and services render this airport very convenient to the intended users. It is probable that the airport eventually may serve regular and regional air carrier flights. This development will necessarily coincide with need for an additional air carrier airport. Extremely long range population growth projections predict light industrial, recreational and residential development in the Everglades area. Several highway developments have been proposed which will undoubtedly lead to improved access between the site and populated areas. Interstate Route 75 connecting Miami and Florida West Coast Cities will run through or along the south boundary of the new airport. The State is considering a road running southward from State Road 838, Alligator Alley, southward along the east airport boundary to U.S. 41, Tamiami Trail and I-75.

Senator NELSON. So we will adjourn until June 11. Thank you.
(Whereupon, at 5:35 p.m. the committee adjourned to reconvene June 11, 1969.)

EVERGLADES NATIONAL PARK

WEDNESDAY, JUNE 11, 1969

U.S. SENATE,
COMMITTEE ON INTERIOR AND INSULAR AFFAIRS,
Washington, D.C.

The committee met, pursuant to recess, at 10 a.m., in room 3110, New Senate Office Building, Senator Gaylord Nelson presiding.

Present: Senators Henry M. Jackson, Washington; Clinton P. Anderson, New Mexico; and Gaylord Nelson, Wisconsin.

Also present: Jerry T. Verkler, staff director; William Van Ness, special counsel; Charles Cook, minority counsel; Daniel Dreyfus and Denny Miller, professional staff members.

Senator NELSON. The committee will come to order.

The purpose of this hearing before the Committee on Interior and Insular Affairs is to continue taking testimony on the environmental effects on the Everglades National Park resulting from water control projects, airport construction, and other planned development in the vicinity.

The committee held previous hearings on June 3, 1969. At that time, testimony was received from representatives of the Federal agencies which have responsibilities regarding the park and the development taking place and from representatives of the State of Florida and the State and local agencies involved.

Today, the committee will receive testimony from representatives of nongovernmental organizations which have expressed interest in the problems of the park.

I am hopeful that today's hearings will contribute valuable information and insights concerning the present environmental threats to the park, public concern for the park's unique values and perhaps some suggestions of solutions to the complex problems which have been described.

Our first witness this morning is Anthony Wayne Smith, president and general counsel, National Parks Association.

Mr. Smith, we appreciate your taking the time to appear this morning.

You may present your statement in any fashion you desire.

STATEMENT OF ANTHONY WAYNE SMITH, PRESIDENT AND GENERAL COUNSEL, NATIONAL PARKS ASSOCIATION

Mr. SMITH. Thank you, Senator.

Mr. Chairman and Senator Anderson, my name is Anthony Wayne Smith, 1701 18th Street NW., Washington, D.C. I am president and general counsel of the National Parks Association. I appreciate the invitation to testify in respect to the Florida Everglades.

I am an attorney admitted to practice in the State of New York, the District of Columbia, and all appellate courts. I am a specialist in Government operations, particularly those related to the management of natural resources. As assistant general counsel to the former Congress of Industrial Organizations, I was in charge of its conservation program for about 11 years. I have been the executive officer of the National Parks Association since then for about the same length of time. My specialized professional experience in these fields extends back about 25 years.

The National Parks Association is a private, nonprofit, public service institution with over 40,000 members throughout the United States and abroad. It publishes the monthly National Parks magazine received by all members. It was founded in 1919 at the behest of Stephen T. Mather, the first Director of the National Park Service, and is celebrating its 50th anniversary this year; for further identification I supply copies of the May 1969, anniversary issue of National Parks magazine. That is the document which accompanies my testimony, Mr. Chairman.

The National Parks Association is the leading private organization concerned primarily with the protection of the national park system and comparable natural areas. It functions in an educational and consultative manner to assist the National Park Service, and as a constructive critic of the operations of that Service. It is financed almost entirely by its membership.

About a quarter-century ago the Congress of the United States established Everglades National Park as one of the most vital major units of the national park system. Everglades Park was intended to protect a unique and irreplaceable area of subtropical vegetation, bird, and other animal life, and, indeed, the entire regional environment, for the benefit of all people for all times. Situated at the southwestern tip of Florida, it comprises only a relatively small portion of the great Everglades country of central and southern Florida, characterized in the east by slowly flowing, shallow fresh water, with wide perspectives of saw grass and isolated hammocks of trees, all sometimes known as the river grass, and in the west by extensive cypress swamps, reaching down toward the mangrove forests of the gulf coast. The indispensable water supplies of Everglades National Park are derived mainly from this river of grass and these cypress swamps.

The will of the American people and of the Congress in establishing Everglades National Park has been frustrated and endangered time after time by conflicting programs of the Federal Government. The National Parks Association and other environmental groups have been obliged to come to the rescue of Everglades National Park and the Everglades and cypress country time and time again.

We are faced at this particular moment by a new menace to Everglades Park and the Everglades and cypress country north of the park in the form of a gigantic and destructive jetport which has never been authorized by Congress, but which is apparently destined, unless it be halted, to receive sizable Federal financial subsidies.

In our judgment, as students of governmental operations, this confusion and conflict in Federal programs needs to be corrected. The fallacious evaluations, in terms of social purposes, on which the jetport project is based, require vigorous overhauling. Major deficiencies

of governmental coordination, as among Federal bureaus, and as between the Federal and State governments, need to be rectified in the light of such reevaluations.

Very briefly with respect to the assets and resources at stake: Everglades National Park receives an enormous number of visitors every year from all over the United States, and indeed, the world.

The experience of seeing the teeming plant and animal life of this unspoiled subtropical country is one of primary importance to the citizens of an increasingly urbanized civilization. In addition, this influx of tourists gives rise to one of the largest industries in the State of Florida.

It should be clearly understood that Everglades National Park and the Everglades country to the north have always been matters of vital concern to the people of Florida and the Florida State government. Much of the money required for the purchase of the land in Everglades Park was contributed by the State of Florida pursuant to an act of the Florida Legislature. Florida has also assumed heavy responsibilities for the management of the water supplies of the region through the central and southern Florida Flood Control District, an agency of the government of Florida. The State has not been unaware of the great economic importance of the tourist business which hangs on the preservation of Everglades National Park; nor of the environmental importance of the Everglades, the cyprus swamps, and the park as part of the total environment of Florida, within which the people of that State spend their lives, and toward which great numbers of people from other parts of the country are attracted as visitors and residents.

Everglades National Park and the Everglades and cyprus swamp country to the north of it conserve priceless esthetic and scientific treasures.

They provide habitat for an unusually large number of rare and endangered species of plants, birds, and reptiles. The park, like other units of the national park system, stands and should endure in perpetuity as a model or example of the spacious and beautiful natural environment which should become typical, which should be expanded, not diminished, as industrial society gains control over its surrounding circumstances and accepts responsibility for the beneficial protection and management of the planet.

As to the dangers: increasingly in recent decades the park, the Everglades, and swamps have been imperiled by, first of all, water drainage in the name of flood control, involving the dumping of supposedly surplus water supplies into the Atlantic Ocean and the Gulf of Mexico. It now becomes apparent, as it should always have been apparent, if engineers had looked more than a decade ahead, that all of this water will be needed for municipal, agricultural, and conservation purposes, and that such dumping can no longer be tolerated.

Several years ago, Congress directed the Army Corps of Engineers to restudy its plans for the management of water in central and southern Florida, with a view, among other things, to providing adequate water supplies to Everglades National Park.

Plans were developed by the Army Engineers as a result of this assignment, which included deepening Lake Okeechobee, a major water retention basin, and improving the canals and other engineering

works, which are intended, among other things, to bring water in a southeasterly and then southwesterly direction to the park.

The major defect in the program of the Army Engineers is that it contains no guarantee that the water which may be provided by this system will actually be delivered to the park.

Another defect is that it makes no adequate provision for the protection of the normal flows of water through the cyprus swamps west of the Everglades proper into the park. These flows are about to be interrupted by the giant jetport project, the superhighways which are planned for access, the urbanization which will accompany it, and the independent urbanization which is taking place around the in-holdings of privately owned land within Everglades National Park and the cyprus country.

If a beginning has been made, as a result of the insistence of Congress, on providing a measure of security for Everglades Park in terms of water flow and engineering installations, it is a beginning only, and a shaky one, indeed.

Not only conservation, but urbanization and agriculture will draw heavily upon the water resources of central and southern Florida. The needs of urban areas like that around Miami and the cities north of Miami for water are great and growing; for agriculture there have been problems of drainage and irrigation, both requiring storage.

The interruption of the flow of water southwestward through the cyprus swamps by the proposed giant jetport and accompanying urbanization and highways will make it necessary to draw large quantities of water through the aqueduct system from Lake Okeechobee and from the conservation areas into the park, large additional quantities. Such withdrawals will place a heavier load on supplies otherwise available for the coastal cities and central Florida agriculture.

In this sense, Miami and the other coastal cities, and agriculture also, have a great stake in stopping the proposed giant jetport.

Briefly, this project, sponsored by the Miami Port Authority, will fill some 39 square miles of what is now swamp and water north of the boundary of Everglades National Park and mainly west of the boundary of conservation area No. 3, the major water storage area in the region.

An enormous superhighway will link Miami with the proposed jetport, either along the route of the present Tamiami Trail, which is on the northern boundary of the park, or along a more northerly route of its own.

Huge service, residential, and industrial areas appear likely to spring up in the vicinity of the jetport which will do even more harm than the airport itself.

There will be heavy water and air pollution, resulting from the fall-out from jet exhaust and from pesticides and insecticides used on residential and commercial lawns and otherwise. This is envisioned as a supersonic and jumbo jetport. The plant and animal life of the Everglades is unusually susceptible to such pollution and many endangered plant and animal species may well succumb to such poisoning. There will also be intolerable noise pollution which will certainly have a serious adverse effect on the ecology of the region.

A powerful coalition of conservation and other organizations recently drew together under the leadership of the National Parks As-

sociation and the National Audubon Society to protest the construction of the jetport.

It expressed its opposition by a letter to Secretary of Transportation John A. Volpe, noting that the Department of Transportation has control over this situation through the Federal Aviation Administration in respect to the jetport itself, and the Federal Highway Administration in respect to highway communications.

On the invitation of Secretary Volpe it met thereafter with Assistant Secretary James D'Orma Braman and other Government officials, including Mr. Roger F. Bacon of the Federal Aviation Administration, to lay its protest before them in detail.

A copy of the joint letter to Secretary Volpe, including the signatories, with additional names added thereafter, is supplied herewith to the committee. The signatories include the following:

- National Parks Association.
- National Audubon Society.
- The Wilderness Society.
- The Nature Conservancy.
- Wildlife Management Institute.
- Sierra Club.
- Citizens Committee on Natural Resources.
- United Automobile Workers of America.
- American Forestry Association.
- The Wildlife Society.
- American Fisheries Society.
- Natural Area Council.
- National Recreation and Park Association.
- Defenders of Wildlife.
- Anti-Pollution League.
- Florida Audubon Society.
- National Wildlife Federation.
- Audubon Naturalist Society of Middle Atlantic States.
- World Wildlife Fund.
- American Forest Institute.

To this list I would now like to add the Garden Club of America, which notified me yesterday that they would also like to be added as a signatory to this list.

I believe the Isaac Walton League sent a separate letter protesting against the jetport.

The International Union for the Conservation of Natural Resources wrote separately to Secretary Volpe opposing the jetport.

I should add that the National Parks Association took note of the impending jetport project more than 8 months ago and that I commented on it editorially and adversely in National Parks magazine in January of this year; copy submitted. That is the second copy of the magazine that I am submitting with my testimony.

At the conference, the signatories made it clear that they considered that the Department of Transportation had violated the Transportation Act in proceeding to give substantial economic assistance to the jetport project. The Federal Aviation Administration had granted \$500,000 to the Miami Port Authority for the construction of the first runway of the jetport, for a total cost of perhaps \$2,500,000.

Section 4(f) of the Transportation Act prohibits the Secretary of Transportation from approving any transportation project, such as the proposed Miami jetport, which requires the use of publicly owned land from parks, recreation areas, or wildlife, and waterfowl refuges of National or State significance unless: (1) there is no feasible alternative and; (2) the project includes all possible planning to minimize harm to park, recreation, or wildlife and waterfowl areas.

Senator NELSON. Are there any publicly owned lands involved?

Mr. SMITH. Yes. The next paragraph adds to that thought.

The use of the proposed jetport will require navigation easements over the Florida conservation area north of the park, and that is east of the proposed jetport, which is a State recreation area and wildlife refuge, and over Everglades National Park.

It is apparent that section 4(f) is applicable to the jetport situation. I don't think the Department questions that.

Senator NELSON. Are you saying that overflights over the park, itself, or conservation area No. 3 constitute the use of publicly owned land?

Mr. SMITH. Yes, Senator, I am.

Moreover, the overflights will have many effects on those publicly owned lands which must be regarded as the use of the lands.

Senator NELSON. I don't have any doubt of that. If there is noise, it destroys the wilderness wildlife enjoyment of the area by human beings, if nothing else.

I am wondering about your interpretation that overflights constitute a use of public lands.

Have you an opinion to that effect?

Mr. SMITH. It is my understanding that this is the interpretation of law by the Department of Interior. In our discussion of the subject with representatives of the Department of Transportation, this was not questioned. I think the point you are making is a very good one. I am interested in the question as a lawyer.

I think it might be helpful to the committee, and I think I would want to do this anyway, to get a more detailed analysis of the legal question that you are raising. I think it is a very relevant one.

For purposes of the present testimony, I would simply repeat that I think both Departments agree that this is the case.

No formal, publicly announced findings were ever made pursuant to adequate procedures that there is no feasible alternative to the proposed giant jetport in the Everglades. Informal consultations may have been carried on with various State and Federal bureaus, but no inquiries or determinations were made which could conceivably be regarded as grounding a finding of the kind required by the law.

I would like to add that this is specifically very clear with respect to this one runway that has been built because what everyone may argue about the possible alternatives to the jetport as a whole, and I agree it is hard to find a location for a jetport, there must be hundreds of alternatives to this specific location for one runway.

That was all that was under consideration at the time. So it is quite clear that there were alternatives, and that a finding that there were no alternatives for that one runway, which is advanced as training runway, a special reason all its own, that there were alternatives to

that, and, moreover, so far as we know, no study of the ecological effects of that one runway were ever made.

If so, the public is unaware of them and we are unaware of them. With respect to that one runway there seems to have been a very clear violation of section 4(f).

We gained the impression from our meeting with Assistant Secretary Braman and the other officials present, that they recognized the applicability of this section of the law and conceded that no satisfactory findings with regard to alternatives had been made, but that they would now undertake the necessary formal investigations and proceed to the essential determinations.

I would add that the law prohibits approval unless there is no feasible alternative. This is a question of fact. The law is not to be satisfied by a finding insufficiently supported by fact.

We must necessarily inquire at this point about the status of the grant of \$500,000 which has already been made to the Miami Port Authority, apparently ignoring the requirements of the law, and whether the Federal Government should not now be reimbursed.

Section 4(f) of the Transportation Act also requires a finding that the project includes all possible planning to minimize ecological damage. Informal discussions appear to have been held with lower echelons in the Department of the Interior with respect to planning for such protection, but nothing of the kind reasonably contemplated by the law was undertaken. Indeed, it appears that the Department of the Interior had endeavored to obtain consultative meetings with the Department of Transportation with respect to the jetport without success. We had the impression, also, that the DOT officials participating in our meeting conceded that there had been a failure to comply with this section of the law; they undertook to initiate such discussions thereafter. The question arises on this ground also whether the grant of \$500,000 to the Miami Port Authority was not made in conflict with the law, and whether it should not be reimbursed.

But not only this major grant of half a million dollars is involved. A further project has been undertaken under the auspices of the Federal Railroad Administration, also within the Department of Transportation, aided by a grant of \$200,000, to initiate an engineering study to determine the most practical forms of ground travel from Miami to the jetport. In an announcement dated March 16, 1969, the Secretary of Transportation is said to have stated that the proposed jetport would be an ideal site for the demonstration of a completely new ground access system. There is talk of ground transportation at 250 miles an hour, a completely unnecessary speed. If this grant is primarily ancillary to the jetport project, and I am not certain about that, the question arises whether it has not been made in violation of section 4(f) of the Transportation Act and whether it should not be recaptured.

It has been stated that after the completion of the present runway, scheduled for sometime around September of this year, the Miami Port Authority may attempt to proceed with the construction of a second runway. It is said that it may do so with or without Federal assistance and with or without Federal approval. It is our position that the Department of Transportation has control over this situation

in view of its responsibility for licensing airports, control towers, and other facilities.

The Federal Government is not without authority to prevent such anarchic intrusions into the orderly and well-planned construction and management of a continental transportation system. If it lacks that authority, Congress should look into the situation. DOT should make it clear that no additional runway will be constructed, with or without Federal funds, unless grants approval; failing such action by the DOT, Congress should confirm the Federal authority.

In our judgment, any finding by DOT that there is no feasible alternative to the proposed jetport would be contrary to the evidence, and action looking toward construction would be subject to injunction.

There is an abundance of alternatives; first of all, the enlargement of the existing jetports in the immediate vicinity of Miami itself. When the news of the jetport project first broke in the press last November, it was reported that the Miami Jetport Authority had a fallback plan just in case the jetport project did not go through; namely, to enlarge the nearby jetports as indicated, and to sell off the land which had been acquired for the proposed jetport.

A second alternative is to make use of several surplus military airports north of Miami. No doubt this plan is unattractive to the Miami Port Authority because business might be taken away from Miami to the communities north of Miami. Such a consideration is not a proper concern of the Department of Transportation, which is charged with equal responsibility to these communities to the north, and above all, to the American people.

There appears to be a third possibility, locating an airport in conservation area No. 2, east of Lake Okeechobee; no doubt other possibilities could be discovered with a little effort. Conservation area No. 1 is the Fakahatchee Wildlife Refuge and should not be considered for this purpose. Conservation area No. 2, the only possible portion of that which would be acceptable as we see it, would conceivably be 2-B, which is the southeastern corner of conservation area No. 2 but this also is gravely to be questioned.

I realize that Assistant Secretary Braman of the Department of Transportation has testified as of last week that many of these areas that I am suggesting have been examined and they decided that they were not workable. We would like to see more evidence of that, the reasons for these decisions. We question that statement very fundamentally. It seems to us quite clear that alternative methods of bringing the plans into that general region could be worked out on these other sites, maybe not all of them together but with a proper combination of them.

After our coalition of conservation and environmental organizations met with Assistant Secretary Braman and his associates, the Departments of Transportation and Interior announced the establishment of a joint interdepartmental committee to coordinate environmental studies relating to the Everglades National Park and the proposed new Miami jetport. The Secretaries expressed concern about the park and the area, and their intention to preserve the park. However, in the judgment of many qualified students, the jetport as such, in its present location, is incompatible with the preservation of the park. Pronounce

ments of good intention can only be misleading unless the full ecological and social destructiveness of the jetport is fully understood.

We commend the establishment of the joint interdepartmental committee, which includes highly competent public officials on both sides. We made it clear in our meeting with the Assistant Secretary and his associates that the first requirement is that the jetport project and all supporting undertakings, including the ground transportation study in its application to the jetport and any second runway, be halted until the letter and the spirit of the Transportation Act can be complied with. But we also made it clear that we are convinced that the jetport is socially and ecologically unacceptable and that we will oppose its construction under any circumstances.

This is not the first seriously dangerous project which has imperiled the Everglades National Park in recent years. Not very long ago it was the impending construction of canal 111 outside the southeasterly boundary of the park. This canal, which was ostensibly intended at the time to permit defense-related navigation, but which was also connected with real estate speculation, would have resulted in an inflow of saline water into the eastern portion of the park, destroying its ecology, at least that portion of the park.

The Audubon Society, supported by the National Parks Association, took the issue to court. At that juncture it seemingly turned out that the navigational development would not be necessary to the space effort, and the final excavation of the canal to salt water was at least deferred. Here was a direct clash between congressional policy for the protection of Everglades Park, the responsibility of which is carried by the Department of the Interior and the National Park Service on the one hand, and other agencies and programs of the Federal Government on the other.

I would like to interpolate a comment at that point that on the superhighway which is proposed to connect Miami with the jetport, we did not question the superhighway as such if conceived of as a transstate highway link from one coast to the other at our meeting on the jetport problem. But it seems to be quite clear, and maybe even clearer in the case of the superhighway than it is in the case of the jetport, that section 4(f) is applicable, because the highway will go right squarely through the conservation area. This is a State game and recreation area. So the requirement that, first of all, there are no feasible alternatives would have to be complied with as a matter of fact. This would have to be the case. And, secondly, planning for the minimization of ecological damage would have to be shown. That would be an extremely expensive undertaking. So if a superhighway of this kind is planned through Conservation Area No. 3, then, speaking for the National Parks Association, we would point out that section 4(f) is applicable and we would oppose any such highway if it had the effects that we believe it would have on the ecology of the region.

The various Federal programs and the relationship between Federal and State programs in Florida are in grave confusion. An accelerated urbanization, not unrelated to the programs of the Department of Housing and Urban Development; accelerated space and defense activities, falling within the control of the Department of Defense; the flood control, water supply and drainage programs of the Army Engineers, which are a law unto themselves; the subsidy programs

of the Department of Agriculture, resulting in an overdevelopment of agriculture in several commodities in Florida, harmful to agriculture; a failure to exercise adequate control and vigilance over pollution on the part of Interior, Agriculture, and HEW; and now the cancerous growth of unnecessary transportation facilities under DOT, despite the mandate to formulate a balanced transportation system for America; all these operations are proceeding without coordination and without consciously formulated and integrated objectives. In addition, certain of the agencies of the State of Florida have proceeded, at times, without coordination with the Florida State government or the Government of the United States.

The question has apparently still not been decided whether the central and southern Florida Flood Control District or the Army Engineers has control over the release of water from the conservation areas north of Everglades Park into the park.

It is our understanding that several years ago the Solicitor for the Department of the Interior announced an opinion that the Army Engineers did have control over such releases and that the Army could require the operating agency for the area, which is the Florida district, to release water needed to save Everglades Park from drought. We were advised at that time that the Solicitor for the Department of the Army took a contrary position; Interior, so we were told, would seek a decision by the Attorney General.

This problem should be settled by the Attorney General; for want of such settlement, Congress should decide the question. Enormous Federal subsidies for the drainage of the Kissimmee River Basin northwest of Lake Okeechobee are involved.

Hundreds of millions of dollars have already been spent by the Federal Government for drainage, irrigation, flood control, and water supply; it would be intolerable to permit the operation of the conservation areas which benefit from these waterworks to be carried on without coordination with Federal purposes and projects.

Senator NELSON. Do you have the figure on the amount of Federal money spent on this?

Mr. SMITH. I don't at the moment, Senator, I am sorry. I will be glad to get those figures and submit them to you.

Several years ago it was in the neighborhood of \$150 million that had gone into drainage, and I think this was less than half of what was projected. Since that time there must have been considerably more spent.

I would guess that the total involved here is somewhere in the neighborhood of \$300 million or \$400 million. I would be very happy to get those precise figures and submit them to the committee.

Senator NELSON. You are not saying that hundreds of millions have been spent for the drainage of the river basin northwest of Okeechobee, are you?

Mr. SMITH. No. The drainage up there is only part of that. But it is all part of the so-called central Florida flood control project.

Senator NELSON. The figure I recall is Federal expenditures for the canals, flood control, and water management of \$170 million. I believe that is correct.

Mr. SMITH. That sounds about right, but I think there is an equal expenditure which is still anticipated.

Senator NELSON. There is an authorization for another \$160 million, I believe. Well, we will check the figures for the record.

Mr. SMITH. No doubt you can obtain those figures, but I will be glad to get the precise figures and send them in.

The point is that the Central and Southern Florida Flood Control District is one of these autonomous agencies of a State government which, as I understand it, is set up with a rotating participation, with terms which are not congruent with terms of the Governor of the State.

As a result, it is inclined to go its own way, without the Governor or the State government having very much control over the situation. If the flow of water from the conservation areas into the parks is allowed to remain in the hands of the flood control district, then other purposes, certain, than park protection are likely to have priority.

It has been our position that the Army Engineers did have continuing control over that situation, and that in view of the amount of money that has gone in from Federal sources they most certainly should.

There has been this conflict between the Solicitors of the two Departments. As far as I know, this has never been resolved. We are acquainted with it because I participated in pressing the Solicitor of the Department of the Interior several years ago to make a decision from their point of view, and he did. But that is all the farther it got.

No further appropriations or authorizations should be made for the central and southern Florida flood control project, so-called, until this question has been settled with respect to Federal control over water stored pursuant to massive Federal financial assistance.

But it is not merely the legal, economic, and engineering machinery of water management and related questions of space, military, urban, and agricultural development which needs to be coordinated; it is the purposes for which such coordination should be undertaken which mainly concerns us.

It is entirely possible to get a more efficient coordination of Federal governmental and State operations in Florida, or anywhere else, and yet merely do more and more damage. Efficient coordination and integration toward the wrong objectives would be far more destructive than leaving the existing programs in chaos.

The very inefficiency of the existing programs in terms of their mutual conflict might better protect the public in Florida and throughout America than a well-managed, smoothly functioning operation, streamlined intergovernmentally, and interdepartmentally, which did more damage more effectively.

The question is, What are we about as a nation, with all these activities, ill-conceived and ill-designed as too many of them are?

In matters of this kind—and this is one of the reasons this hearing is extremely important, it seems to me—the American people are greatly in need of protection by Congress for the following purposes: (a) establishment of viable social objectives for the management of our exploding technology and the operations of the governmental agencies charged with handling that technology and; (b) the creation of a strong authority at the Presidential level to make sure that all Federal agencies work together, and not only as a team, but also toward well-conceived social objectives.

At this point the significance of the newly established Environmental Quality Council becomes acute. We commend the President on the establishment of the Council. True, it does not differ greatly in structure from the former President's Council on Recreation and Natural Beauty. The only substantial differences are: (1) the President will be chairman of the Council, although he will doubtless delegate his responsibilities to the Vice President; (2) the President's science adviser will serve as Executive Secretary of the Council instead of the Director of the Bureau of Outdoor Recreation, although as we understand it, the Director of the Bureau will continue to handle those aspects of the work previously assigned to him; and (3) the scope of the responsibilities of the Council appears to have been broadened beyond beauty and recreation to the entire environment.

It is not so much the structure of governmental responsibility which has been changed—because it hasn't been very much—but the heavier emphasis which now seems to have been placed on environmental protection.

The Natural Parks Association has testified on invitation, a copy of the testimony being submitted herewith, that it would have been desirable to establish a Council of Environmental and Population Advisers with statutory authority in this situation, as contrasted with an interdepartmental coordinating group created by Executive order.

We have taken the position that the Council should have been an agency on a par with the Council of Economic Advisers, composed of persons drawn from outside the Government, having no connection with any of the operating agencies.

It is well known that the Secretaries of Departments who customarily comprise such interdepartmental agencies do not, in practice, have or give the time required for the work; subordinates are delegated and their authority is circumscribed; the result is usually nothing.

We think it essential, and so testified, that the Council we recommended should have express authority to propose that the President issue stop orders where projects of the Federal Government were considered to be ecologically destructive, pending thorough scientific investigation. No doubt the President has such authority in many situations; we would argue that he has it in respect to the proposed jetport in the Everglades; indeed, DOT had not only the authority to stop this project, but an obligation under the law to do so.

But it would have been worthwhile, and if Congress chooses to act, it would be desirable to make it clear that the President has such power to protect the American people against the more destructive activities of their own Government; in any event, we think that the President, now that he has seen fit to establish an Environmental Quality Council, should exercise a stop-order authority with a firm hand. Whether he does so may well be the critical test of the workability of the Environmental Quality Council; if this Council does not work, then Congress should proceed with dispatch to establish the proposed Council of Environmental and Population Advisers with express stop-order authority.

Senator NELSON. May I interrupt a moment?

Mr. SMITH. Yes, Mr. Chairman.

Senator NELSON. As I understand it, all these organizations endorse the creation of the President's Environmental Quality Council?

Mr. SMITH. No. I am sorry if I gave the impression that my testimony was on behalf of all of these organizations here today. I realize there may be a confusion with respect to my use of the term "we." This is a statement on behalf of the National Parks Association.

I am referring to testimony that we previously gave with respect to the establishment of a Council of Environmental Advisers. The position taken by the various organizations that joined in the meeting with the Assistant Secretary of Transportation, is stated in the letter which I appended as an exhibit to this testimony.

Several of the other organizations are here today and they will, as they choose, express themselves on this question, if they do.

Returning, in conclusion, to the Everglades: This committee, in our opinion, should satisfy itself about several things:

(1) That the water engineering plan developed by the Army Engineers to supply water to Everglades National Park, is technically adequate for that purpose.

(2) That an unshakable guarantee shall be given by the Federal Government and the State of Florida that any such technically satisfactory solutions will actually be employed to provide the minimum required for the survival of the plant and animal life of Everglades Park. The Army has said in effect that this plan will supply the water. So much water is needed. But no guarantee has been given that the system will be used to supply that water. This is extremely important and it is really the crux at the moment on what has been expended to solve the water supply down there.

(3) That adequate and uninterrupted flows are guaranteed by one or another measure down the western side of the State through the cypress swamps to the brackish waters and mangrove areas of the park and the coast. The Army plan does not appear to us to guarantee this flow and the jet port would interrupt it.

(4) That adequate authorizations and appropriations are given to the Department of the Interior and the National Park Service for the acquisition of all remaining in-holdings, including the so-called hole in the doughnut, within the exterior boundaries of Everglades National Park, and within areas north of the boundary which are essential to the life of the park, with an extension of boundaries if need be. The act creating Everglades National Park limited the authorizations for appropriations by Congress for the acquisition of land. We are now at the place where the authorizations are exhausted. Additional authorizations for appropriations ought to be made so that additional acquisitions may be made.

(5) That the Department of Transportation and all other Federal agencies are in compliance with Federal law with respect to findings, determinations, hearings, notice of hearings, and interdepartmental coordination in respect to the proposed giant jet port north of the park and highway.

(6) Regardless of any findings which may be made by DOT with respect to alternatives or ecological planning, that this objectionable jetport, which will unquestionably sound the death knell for Everglades National Park, be halted now and for good.

It is entirely possible for agencies to go through the paces of settling on findings for administrative purposes which will permit them to proceed with objectionable processes, without adequate foundation

for such findings; the difficulty of getting public review of such determinations is enormous: judicial relief by injunction is expensive and encumbered with technicalities which limit participation pro bono publico. Standing to sue in terms of a private property interest must usually be shown, whereas the objections here are being registered mainly by groups having no selfish property interest whatsoever, concerned only with the public interest. In the last analysis these questions come back to Congress for settlement.

There is a rising tide of public sentiment throughout America for the protection of natural areas like Everglades Park; there is a rising indignation about the failure of Federal and State agencies to program their operations with a view to sound social purposes; there is an increasing anger against the confusion of administration which we see manifested everywhere. This growing sentiment for environmental protection will, in our judgment, provide a strong legislative and political foundation for the work of those leaders in the House and Senate of the United States who are speaking out more and more vigorously these days in favor of environmental protection.

I greatly appreciate the opportunity I have had to lay these views before this committee and will be happy to submit any supplemental statements or to appear at any time again in the future if it would be of assistance to the committee.

(The document referred to follows:)

NATIONAL PARKS ASSOCIATION,
Washington, D.C., April 17, 1969.

Hon. JOHN A. VOLPE,

Secretary of Transportation, Department of Transportation, Washington, D.C.

DEAR MR. SECRETARY: A great opportunity lies before you to make an outstanding contribution to conservation and environmental protection in connection with the proposed jetport in the Everglades in Florida, and the undersigned organizations would be happy to be of assistance.

The American people, acting through Congress, established a magnificent new national park in the Everglades in Florida more than twenty years ago.

The State of Florida, with the assistance of the Army Engineers, established three great Conservation Areas north of the park to conserve water in the Everglades for many purposes in central and southern Florida, and for the sake of the Everglades themselves.

The teeming plant and animal life of the Everglades, sub-tropical in character, is unique in the United States; if destroyed it could never be replaced. The natural environment provided by the Everglades for human life in Florida, with its water, wildlife, vegetation, pure air, and spaciousness, is indispensable to our civilization.

And yet all of these magnificent resources are about to be gravely endangered by the construction of a monstrous jetport immediately north of the park boundary and west of the boundary of the Conservation Areas.

One runway of the jetport is about to be completed for training purposes; in our judgment further construction should be halted; there are numerous alternatives to the plans being advanced by developers for the location of elaborate commercial facilities there; we would be happy to confer with you on the nature of these alternatives.

A huge access road to the jetport from the Miami area is proposed, with a 1,000-foot right-of-way, cutting either directly through the Everglades area, or following along the route of the existing Tamiami Trail. There is even talk of ground transportation along this route at a speed of 250 miles per hour.

The environmental damage which would be done by the construction of this huge jetport, which will cover 39 square miles of what is now Everglades country, and which is to receive supersonic and jumbo jets, will include among other things serious air pollution, with heavy fallout of exhaust products into water supplies; water pollution from traffic and installations; noise pollution intoler-

able for animals and people; impediments to the flow of water being planned by the Army Engineers for the park; and intensive residential, commercial, and industrial development, bringing serious waste water disposal or purification problems, and heavy runoff of insecticides and fertilizers.

The groups which have a monetary stake in promoting this project are not hard to identify; the real estate speculators; the construction equipment industry; the construction contractors; the airlines; and unfortunately also some elements of the governmental bureaucracy.

The primary keys to the solution of this problem lie in the hands of the Secretary of Transportation. The Federal Aviation Administration lent \$500,000 to start this project off, and must make the final decision as to whether the jetport should be constructed at this location. The Federal Highway Administration will have to make the final decision as to whether and where the access road should be built. Enormous contributions of Federal funds are involved, and if the Secretary of Transportation wishes to decide that the facility should be built elsewhere or not built at all, he can do so. We wish to lend our aid to you in support of a decision by you to stop this objectionable project.

The airport site has been a hunting ground for the Miccosukee Indians for more than a century. They perform an annual rite known as the Green Corn Dance. The sponsors of the project have agreed to preserve a few huts, but the Indians, as is so often the case, will have their way of life destroyed.

The undersigned organizations represent practically the entire conservation and environmental movement of the United States. They comprise together a very large membership, and one which is dedicated to the cause of environmental protection in behalf of people. They publish a number of powerful monthly magazines, educational in character, which will be devoted consistently toward public education on this issue until the matter is resolved favorably to environmental protection.

Incidentally, we neither propose nor oppose any legislative action whatsoever, considering that the resolution of the difficulty lies entirely within authorities possessed by the Secretary of Transportation and other Federal officials.

We recognize that other departments of the Federal Government are involved, including Interior, which has a stake in the protection of Everglades National Park and the Miccosukee Indians, and the Department of the Army, because the Army Engineers have developed a water plan for the Everglades which will be seriously disrupted by the jetport and superhighway.

We would hope that the burden of resolving this conflict would not have to fall upon the shoulders of the President of the United States, who has other weighty matters to which he must give his attention. We believe that you, as Secretary of Transportation, are in a position to settle this question and we request an opportunity to meet with you for a full discussion of the subject at an early opportunity.

We are taking the liberty of transmitting a copy of this letter to the Secretary of the Interior, the Secretary of the Army, the Director of the Bureau of the Budget, and the Governor of Florida, because the subject is obviously of importance to them.

Representatives of several of our organizations met here in Washington recently to discuss and agree upon sending this letter to you. We plan to confer among ourselves again on or about April 23. It would be helpful if you felt you could let us have word from you by that time about a meeting with you at your convenience.

We do not plan to make this letter public immediately, and would hope that we might accommodate ourselves to your preferences in that connection if you will apprise us of them.

Assuring you of our desire to cooperate with you in solving this important problem.

Sincerely yours,

National Parks Association, Anthony Wayne Smith, President and General Counsel; National Audubon Society, Elvis J. Stahr, President; The Wilderness Society, Stewart M. Brandborg, Executive Director; The Nature Conservancy, Thomas W. Richards, President; United Automobile Workers of America, Olga M. Madar, Executive Board and Director, Department of Conservation and Resource Development; American Forestry Association, William E. Towell, Executive Vice President; The Wildlife Society, Fred Evenden, Executive Director; American Fisheries Society, Elwood A. Seeman, President; Natural Area Council, Richard D.

Pough, President, Wildlife Management Institute, Ira N. Gabrielson, President; Sierra Club, W. Lloyd Tupling, Washington Representative; Citizens Committee on Natural Resources, Spencer M. Smith, Jr., Secretary; National Recreation and Park Association, Sal J. Prezioso, President; Defenders of Wildlife, Mary Hazell Harris, Executive Secretary; Anti-Pollution League, Larry Bogart; Florida Audubon Society, C. Russell Mason, Executive Director; National Wildlife Federation, Thomas L. Kimball, Executive Director.

NATIONAL PARKS ASSOCIATION,
Washington, D.C., May 9, 1969.

HON. JOHN A. VOLPE,
Secretary of Transportation, Department of Transportation,
Washington, D.C.

DEAR MR. SECRETARY: In respect to the letter addressed to you recently from a number of conservation and other organizations with regard to a proposed giant jetport in the Everglades in Florida, we would appreciate your considering the following organizations as additional signatories: Audubon Naturalist Society; World Wildlife Fund; American Forest Institute.

Cordially yours,

ANTHONY WAYNE SMITH,
President and General Counsel.

Senator NELSON. Thank you very much.

I might say, Mr. Smith, that a few moments ago I was given an opinion by the Office of the Solicitor of the Department of the Interior, in a memorandum.

This is respecting section 4(f). This Solicitor's opinion is dated a few days ago, May 29. It states:

In a memorandum of May 22, 1969, the Under Secretary requested the views of the Solicitor's Office on the applicability of section 4(f) of the Department of Transportation Act to the development of a jetport 50 miles west of Miami, Florida, just north of the Everglades National Park, and the development of an interstate highway and highspeed ground transportation corridor, constructed in conjunction with the jetport in order to provide access to jetport facilities.

On page 6 of the Solicitor's opinion, he states:

It follows, therefore, that under the Congressional directive of section 4(f), the Department of Transportation could not approve assistance to the jetport, high-speed ground transportation, or highways, and could not allow the jetport to open even as a training facility, unless the conditions precedent of section 4(f) have been met, that is, a determination by that Department that there is no feasible and prudent alternative to the whole airport development complex and that the program includes all possible planning to minimize harm.

We also view the requirements of 4(f) as an affirmative obligation on the part of the Department of Transportation, requiring an indepth and comprehensive study.

Then some authorities are cited.

In order to meet these requirements, the Secretary of Transportation must consider, among other things, alternative site locations, the threat of noise pollution, pollution of the park's water supply from jet exhaust and the municipal sewage, air pollution from jet exhaust, further disruption of the park's water supply through accelerated runoff, damage to the recreational features and use of conservation area 3A, and the serious damage to the wilderness character of the park, before he can implement or carry into effect any project or program under his administration involving the jetport and transportation corridor.

It is quite obvious that section 4(f) was not complied with by the Department of Transportation, according to the Solicitor's recent opinion.

I would ask that the entire text of the Solicitor's opinion be printed in the record.

(The document referred to follows:)

U.S. DEPARTMENT OF THE INTERIOR,
OFFICE OF THE SOLICITOR,
Washington, D.C., May 29, 1969.

To: Solicitor.

From: Associate Solicitor, Parks and Recreation.

Subject: Miami Jetport—Everglades National Park.

In a memorandum of May 22, 1969, the Under Secretary requested the views of the Solicitor's Office on the applicability of section 4(f) of the Department of Transportation Act, 80 Stat. 931, 933 (1966), as amended, 49 U.S.C. 1651, 1653 (f) (Supp. III, 1965-67), to the development of a jetport 50 miles west of Miami, Florida, just north of the Everglades National Park, and to the development of an interstate highway and high speed ground transportation corridor, constructed in conjunction with the jetport in order to provide access to jetport facilities.

We have been advised that the Dade County Port Authority has undertaken the initial stages of constructing the jetport, which will be the world's largest—39 square miles. All the runways at Washington National, Kennedy, Los Angeles International and San Francisco International Airports could be constructed within the site of the proposed jetport. (See *Horizons*, vol. 2, No. 23, p. 4, a FAA-DOT publication.) Although the jetport, which is scheduled to go into operation this fall, will be used initially as a training facility, by the 1970's it is planned to be the SST airport for the southeastern United States with projected flight operations every minute or two on a 24 hour basis. We have also been informed by the National Park Service that the flight patterns, including take offs and landings, will take aircraft directly over Conservation Area 3A of the Central and Southern Florida Flood Control Project and the Everglades National Park.

The jetport will be serviced by a transportation corridor containing an interstate highway and a high-speed ground transportation facility within a right-of-way of 900 to 1000 feet wide that will be located either in the north section of the park or in the southern section of Conservation Area 3A.

In the fall of 1968 the Federal Aviation Administration made a grant of \$500,000 to the Dade County Port Authority under the provisions of the Federal Airport Act, 60 Stat. 170 (1946), as amended, 49 U.S.C. 1101 (1964), to assist in the initial phase of construction and development of the jetport. *Ibid.* FAA also has the responsibility for determining whether the jetport should be made operational, even as a training facility.

In January of 1969, the Office of High Speed Ground Transportation of the Department of Transportation announced a \$200,000 grant to Dade County, Florida, for the purpose of a planning study on high speed ground transportation between Miami and the jetport, pursuant to the Act of September 30, 1965, 79 Stat. 893, 49 U.S.C. 1631 (Supp. III, 1965), which is a program responsibility transferred to the Secretary of Transportation under section 6(a) (2) of the Department of Transportation Act, *supra*, 49 U.S.C. 1655(a) (2) (Supp. III, 1965-67).

The location of the interstate highway in the transportation corridor falls under the direction of the Federal Highway Administration pursuant to the interstate highway and Federal-aid to highway programs as set forth in Title 23 of the United States Code.

In view of the fact that this comprehensive program for the development of transportation facilities in southern Florida falls within the administrative responsibilities of the Secretary of Transportation, the provisions of the act establishing the Department of Transportation are directly applicable.

Section 2(b) (2) of that act provides:

It is hereby declared to be the national policy that special effort should be made to preserve the natural beauty of the countryside and public park and recreation lands, wildlife and waterfowl refuges, and historic sites. 49 U.S.C. 1951(b) (2) (Supp. III, 1965-67).

Section 4(f) of the Department of Transportation Act, which was amended by section 18(b) of the Federal-Aid to Highway Act of 1968, 82 Stat. 815, provides:

(f) It is hereby declared to be the national policy that special effort should be made to preserve the natural beauty of the countryside and public park and recreation lands, wildlife and waterfowl refuges, and historic sites. The Secretary of Transportation shall cooperate and consult with the Secretaries of the Interior, Housing and Urban Development, and Agriculture,

and with the States in developing transportation plans and programs that include measures to maintain or enhance the natural beauty of the lands traversed. After the effective date of the Federal-Aid Highway Act of 1968, the Secretary shall not approve any program or project which requires the use of any publicly owned land from a public park, recreation area, or wildlife and waterfowl refuge of national, State, or local significance as determined by the Federal, State, or local officials having jurisdiction thereof, or any land from an historic site of national, State, or local significance as so determined by such officials unless (1) there is no feasible and prudent alternative to the use of such land, and (2) such program includes all possible planning to minimize harm to such park, recreational area, wildlife and waterfowl refuge, or historic site resulting from such use.

The opening sentence of section 4(f) declares as a national policy that a "special effort" should be made to preserve public park and recreation lands. This sentence, in our judgment, places an affirmative obligation on the Department of Transportation to make a "special effort" to preserve the Everglades National Park from all damage to park values which may result from the development of the jetport and the transportation corridor. See *Udall v. Federal Power Commission*, 387 U.S. 428 (1967), *Scenic Hudson Preservation Conference v. Federal Power Commission*, 354 F. 2d 608 (2nd Cir., 1965), cert. den. 384 U.S. 941 (1966).

Similarly, in our opinion, the Department of Transportation ought to make the same "special effort" to preserve Conservation Area 3A. This area is managed by the Florida Game and Fresh Water Fish Commission for hunting and fishing and by the Central and Southern Florida Control District for recreational purposes. This area is used by approximately one million persons per year. (H.R. Doc. 369, 90th Cong., 2nd Sess., p. 34; see also Exhibits A & B, attached hereto). As a part of the modification of the Corps of Engineers Central and Southern Florida Flood Control Project the report of the Chief of Engineers noted that over 6 million dollars in the project authorization were for the improvement of recreational facilities and features of the project, which includes Conservation Area 3A, and over 4 million dollars in recreational benefits were attributed to the modification of the project. *Ibid.*, pp. 69 and 79. Not only the Federal and State investment in this area, but also the heavy public recreational use of the area qualifies Conservation Area 3A as a recreation area worthy of preservation and protection under section 4(f).

The second sentence of section 4(f) requires the Secretary of Transportation to cooperate and consult with this Department in the developing transportation plans and programs which include measures to maintain and enhance the natural beauty of the lands traversed. Insofar as the transportation corridor will traverse the park and/or Conservation Area 3A, this provision is, in our view, also applicable to the proposed jetpark and transportation corridor.

The last sentence of section 4(f) provides that after August 23, 1968, the Secretary of Transportation shall not approve any project or program which requires the use of any publicly owned lands from a public park or recreation area of national, State or local significance, as determined by the officials having jurisdiction over the area, unless there is no feasible and prudent alternative and such program includes all possible planning to minimize harm. These conditions precedent, which apply to all programs or projects of the Department of Transportation, including those receiving federal financial assistance as well as those which are a direct program activity of the Department of Transportation, were set forth in a more stringent form in the original section 4(f). Because we have been advised by the National Park Service that the jetport grant was approved in the fall of 1968 and that the high speed ground transportation grant was approved in January 1969, we have limited our inquiry to the applicability of 4(f), as amended in 1968.

Initially it should be noted that the Department of Transportation is under a specific Congressional directive by the use of the word "shall" in section 4(f). By stating that the Secretary shall not approve a project until certain conditions have first been met, Congress was not being merely suggestive, but rather giving a mandatory directive. See *Jack Stone Company v. United States*, 344 F. 2d 370, 374 (Ct. Cl., 1965).

In view of the fact that the transportation corridor will use the northern section of the park and/or the southern section of Conservation Area 3A, the Department of Transportation is directly concerned with projects and programs which require the use of publicly owned lands of a park of great national importance and a significant recreation area. There should be no question about

the public park status and national significance of the Everglades National Park. Congress established the park by the Act of May 30, 1934, 48 Stat. 816, as amended, 16 U.S.C. 410, for preservation as wilderness.

As previously discussed Conservation Area 3A is a heavily used public recreation area. There should be no question about its local and State significance, considering the scope of the State and federal investment in the area. This significance has been expressed numerous times by the Chairman of the Central and Southern Florida Flood Control District, which is the State agency responsible for the management of the flood control project including Conservation Area 3A. See exhibits A & B.

Furthermore the overflights of the park and Conservation Area 3A by aircraft landing and taking off from the jetport may involve the "use" of both park and recreation lands. These overflights, if sufficiently low and frequent, could involve a taking of property rights through navigational easements or servitudes. *Griggs v. Allegheny County*, 369 U.S. 84 (1962), *United States v. Causby*, 328 U.S. 256 (1946). See also *Martin v. Port of Seattle*, 391 P. 2d 540 (Wash. 1964), *Hillsborough County Aviation Authority v. Benitez*, 200 So. 2nd 194 (Fla. 1967), *City of Jacksonville v. Schurmann*, 167 So. 2nd 95 (Fla. 1964), *Thronburg v. Port of Portland*, 376 P. 2d 100 (Ore. 1962). Although the issue is not completely free from controversy, this office would view the term "use" as it appears in section 4(f) to be sufficiently broad in meaning and scope, considering the benefit to be derived from the statute, to include overflights of such a level that a private landowner would be entitled to compensation for a taking of a property right. The term "use" does not, in our judgment, have to be limited exclusively to actual physical use, but could include a constructive use which operates to limit or prevent use of the park or conservation of lands by the public for their intended purposes.

We have been advised by the National Park Service that certain agencies of the Department of Transportation do not consider section 4(f) as applying to their basic programs. For example, FAA has questioned the applicability of section 4(f) to any decision to open the jetport as a training facility. We disagree with such a limited interpretation.

In our judgment, the requirements of 4(f) apply to all programs of the new Department of Transportation and modify the existing statutory authorities of the programs transferred to the control of the Secretary of Transportation. These programs are now subject to the additional statutory consideration required by section 4(f).

It follows, therefore, that under the Congressional directive of section 4(f) the Department of Transportation could not approve assistance to the jetport, high speed ground transportation, or highways, and could not allow the jetport to open even as a training facility, unless the conditions precedent of section 4(f) have been met, i.e., a determination by that Department that there is no feasible and prudent alternative to the whole airport development complex and that the program includes all possible planning to minimize harm.

We also view the requirements of 4(f) as an affirmative obligation on the part of the Department of Transportation, requiring an in-depth and comprehensive study. *Udall v. Federal Power Commission*, *supra.*, *Scenic Hudson Preservation Conference v. Federal Power Commission*, *supra.* See also *Outagamie County, Wisc. v. C.A.B.*, 355 F. 2d 900, 907, (7th Cir. 1966), *City of Pittsburg v. F.P.C.*, 237 F. 2d 741 (D.C. Cir., 1956).

In order to meet these requirements, the Secretary of Transportation must consider, among other things, alternative site locations, the threat of noise pollution, pollution of the park's water supply from jet exhaust and the municipal sewage, air pollution from jet exhaust, further disruption of the park's water supply through accelerated run off, damage to the recreational features and use of Conservation Area 3A, and the serious damage to the wilderness character of the park, before he can implement or carry into effect any project or program under his administration involving the jetport and transportation corridor.

We can find nothing in the legislative history of this act which is contrary to these conclusions or supports a more restrictive interpretation of section 4(f). (See H. Rept. 2236, 89th Cong., 2nd Sess. p. 25, S. Rept. 1659, 89th Cong. 2nd Sess. pp. 5 and 22, H. Rept. 1799, 90th Cong., 2nd Sess., p. 31, S. Rept. 1340, 90th Cong., 2nd Sess. p. 18).

Section 4(f) was intended by Congress to accomplish a very significant objective—a coordinated approach to all affected federal programs which in the past have not been coordinated. In order to minimize adverse effects and duplication, waste of federal and State funds, and conflicting and incompatible pro-

grams and objectives resulting from transportation programs, the Secretary of Transportation was required to undertake a variety of pre-program and pre-grant studies and investigations, including consultation and cooperation with the heads of certain named departments, in order to assure that his program responsibilities do not frustrate the program objectives of other agencies of the federal and State governments. The threat to the Everglades National Park and Conservation Area 3A results from the failure of the Department of Transportation to comply, as of the present time, with the requirements of section 4(f) as they apply to its activities in connection with the Miami jetport and the related transportation corridor.

BERNARD R. MEYER.

ROBERT W. PADRICK,
Fort Pierce, Fla., November 5, 1968.

Mr. Roy K. Wood,
Atlanta, Ga.

DEAR MR. WOOD: I wish to alert you to a situation which is causing me great concern, as it involves needless destruction of natural values of the Flood Control District's Everglades Conservation Area #3.

We have held discussions with the Dade County Port Authority over the past several months relative to its establishment of a 39 square mile airport complex in western Dade and eastern Collier Counties abutting on our western perimeter levee of this Everglades Conservation Area. We had believed that we were going to be able to work out a satisfactory arrangement for a transportation corridor between that airport and Metropolitan Miami. We had assumed that such a corridor would be immediately adjacent to the existing Tamiami Trail which separates our Conservation Area from Everglades National Park. Such a location for a transportation corridor would minimize loss of natural values and would strengthen our ability to preserve the integrity of this large and unique section of the Everglades which, as you know, is a most important water storage area, a primitive wildlife and unique outdoor recreation area used by over a million people a year.

At a planning meeting October 31, at State Road Department offices in Fort Lauderdale, we were rudely awakened to the fact that the transportation corridor which is, presumably, to include among other things an extension of Interstate 75 from Tampa to Miami is being planned to go through the middle of the airport property and thence directly east serving again a large and important segment of this Conservation Area and if implemented, forming a sort of Chinese Wall, which will destroy the many values for which this area has been preserved. The alleged purpose for the severing of our Conservation Area is to "save six minutes" on approximately a 50 mile trip from the airport to the downtown area of Miami. I am attaching a map showing the proposed destruction route as well as a copy of our official position.

I feel so strongly about this that I personally am writing you and other articulate and knowledgeable conservationists and asking that you assist us to ensure defeat of this abominable proposal. As Chairman of the Flood Control District Board, I think I can say that this District will officially continue to oppose this proposal but I feel that it needs all the support it can receive from interested private citizens if the defeat of this proposal is to be ensured. I recognize as I know you do that progress is inevitable and requires accommodation but I will continue to raise my voice when the supposed economics of progress dictate needless destruction of natural values.

I have met with the Governor's Assistant for Natural Resources and three of the Cabinet Members. They have indicated approval of our suggested alignment along Tamiami Trail.

May I have your support.

Very truly yours,

BOB PADRICK.

Senator NELSON. I want to thank you very much, Mr. Smith, for your fine testimony.

(Subsequent to the hearing the following additional information was received:)

NATIONAL PARKS ASSOCIATION,
Washington, D.C., June 17, 1969.

Re Florida Everglades.

HON. GAYLORD NELSON,

Senator of the United States, Senate Office Building, Washington, D.C.

DEAR SENATOR NELSON: You were kind enough to say at the hearing on the above matter on June 11 that the record would be kept open for supplemental material and statements, and in response to the original invitation pursuant to which I appeared I would appreciate having this letter incorporated in the record of the hearing and would like to make the following points:

1. Allow me to congratulate you on your commendable statement in opposition to any further authorizations or appropriations for the so-called Central and Southern Florida Flood Control Project until firm guarantees have been given by the Army Engineers and the State of Florida, including the Flood Control District, that the necessary water will be delivered to Everglades National Park in perpetuity.

2. The requirement here is that 315,000 acre feet of minimum annual flow be provided to the park through the engineering system designed by the Army Engineers to store water in Lake Okeechobee and to bring it from the lake and the conservation areas.

3. These minimum deliveries must be firmly guaranteed by the State of Florida, the Central and Southern Florida Flood Control District, and the Army Corps of Engineers and, if not, then there should be no further authorizations, if such be required, for project construction, and no further appropriations. It is reasonably to be assumed that, out of the large additional storage being developed in this project, the presently established municipal and agricultural needs can easily be taken care of; there should, in our judgment, be no requirement that deliveries to the park fall below the stated minimum, even in case of an overall deficiency: economies in the use of water, and resort to other sources, including underground reservoirs and even if need be distillation, are available to meet any deficiencies for municipal and agricultural purposes.

4. In addition, guarantees should be obtained, in our judgment, for the maintenance of a flow of not less than 157,000 acre feet through the Cypress Swamps and other areas west of Conservation Area No. 3, into the northwestern corner of the park. These flows were not considered adequately in the Army Engineers Project. In our opinion, there should be no further authorizations or appropriations for the Central Florida Project until some method of effectuating such a guarantee has been developed and the guarantee has been given in perpetuity. It may very well be that in addition to the State, the District, and the Corps, the Counties in the vicinity may have to be made party to written guarantees.

5. It would be my hope that all the organizations party to the coalition of conservationists and environmentalists opposing the giant jetport in the Everglades would likewise give express support to the excellent position you have taken against further authorizations or appropriations for the Central Florida Project until permanent guarantees have been given for the necessary water deliveries to the park.

6. In the light of the opinion by the Associate Solicitor of the Department of the Interior to which you referred at the hearing and which has been incorporated in the record, to the effect that the Federal Aviation Administration violated Section 4(f) of the Transportation Act in giving financial aid to the Miami Port Authority for the runway which is about to be completed at the site of the proposed jetport, we are of the opinion that steps should be taken either by or through the General Accounting Office or the Department of Justice looking toward a recapture of the grant of \$500,000 to the Authority for the runway, and prosecution of the officials guilty of the violations in question. We have retained special counsel to advise us concerning the most effective procedures in this matter. We are of the opinion that such violations of the law cannot be tolerated.

7. In response to a question from you, I volunteered to submit a memorandum as to whether overflights and other activities which would necessarily be a part of the operation of the training strip and jetport would, as a matter of law, constitute a use of the surrounding public lands within the meaning of Section 4(f) of the Transportation Act. I trust that the opinion of the Assistant Solicitor of the Department of the Interior serves your purpose adequately in this connection.

8. In response to a further question, the amounts authorized up to the present for all phases of the Central and Southern Florida Flood Control Project total \$330 million; the amounts thus far appropriated through FY/69 total \$170 million. The best available estimates of additional authorizations which may be required appear to be another \$200 million for a total cost of \$530 million; estimated further appropriations required by existing authorizations are \$160 million; and under possible further authorizations are \$360 million; thus the project may be about one-third finished. It is obvious that the Federal Government has made an enormous investment in the so-called Flood Control Project; in our opinion, it should neither authorize nor appropriate any further funds for this project until the water deliveries necessary for Everglades National Park have been guaranteed in the manner outlined above.

9. I submitted a copy of the January 1969 issue of National Parks Magazine containing a neditorial on the proposed jetport, which was the first comment by any national conservation organization on this danger to the Everglades National Park. I would appreciate it if that editorial on the inside front cover of that issue could be reprinted in full in the record.

I enclose herewith another issue of National Parks Magazine for the month of August, 1965 containing an earlier discussion of the dangers which were threatening Everglades National Park, indicating that the National Parks Association had been deeply engaged in the protection of the park for a long time; other similar material could be supplied, but I shall not burden your archives.

10. I am addressing this letter to you because you acted as Chairman of the hearing on June 11 at which I was a witness on invitation, and because I desire to commend you on your forthright position with regard to further funds for this project. I am sending a copy of this letter to the Chairman of the Committee with a formal request for its incorporation in the record as part of my testimony given on invitation of the Chairman.

Sincerely yours,

ANTHONY WAYNE SMITH,
President and General Counsel.

Senator NELSON. Our next witness is Dr. Elvis Stahr, president, National Audubon Society. We are very pleased to have you come here today and testify on this very important issue.

The CHAIRMAN. Mr. Chairman, might I just observe that we are all proud of what all of the conservation organizations have been doing in connection with this problem at the Everglades. I especially want to mention the fine support from the National Audubon Society under the able leadership of Dr. Stahr. They were one of the first to move on the Everglades problem. I emphasize that all of the conservation groups have done an outstanding job. I wanted to emphasize the particular point of the special interest that the National Audubon Society has taken.

STATEMENT OF DR. ELVIS STAHR, PRESIDENT, NATIONAL AUDUBON SOCIETY

Mr. STAHR. Thank you very much, Senator.

Mr. Chairman and members of the committee, I am grateful for the invitation from the chairman of this committee to testify on the important and even dramatic subject of these hearings.

The National Audubon Society is America's largest direct-membership conservation organization. I have the honor of speaking in behalf of our 79,000 members—more than 100,000 if we count each of our family memberships as two persons—and our 141 local chapters.

Our society started its history primarily concerned about wildlife, but now we are committed broadly to the preservation of an environ-

ment that is not only suitable for man's survival, but in which people can lead full lives.

Such an environment must include functioning, natural ecosystems, and the wildlife that are parts of those ecosystems.

It must include national parks and other wilderness preserves for the opportunities that such preserves provide for human recreation and for the contributions they make to scientific knowledge, to the health of the natural environment and to the esthetic needs of our people.

We have no profit motive, no selfish purpose whatever underlying our views on the Everglades or other environmental issues.

The subject of this hearing is a national park that was set aside by an act of Congress to preserve an ecosystem that is unique not only in America, but in the whole world.

Mr. Chairman, I commend the Committee on Interior and Insular Affairs for calling this hearing. Everglades National Park is our most wondrous national park in a number of respects.

It is also the most beset by forces from outside its boundaries that could destroy its natural ecology, devastate the spectacular wildlife populations that are its chief attraction to the ordinary person, and turn it into a polluted wasteland.

With proper foresight and planning, and with proper cooperation between the State of Florida and the Federal Government, none of these things need happen.

There are two chief threats to the Everglades. One has been building up for decades. It involves the impoundment and diversion of waters that are essential to the life of the park.

The other, of recent origin, is a proposal to construct a massive international jetport only 6 miles from the northern boundary of the park and squarely within its vital watershed.

I shall discuss these two threats separately although, of course, they are related, and the cumulative effects could be deadly to the national park and contrary to the best interests of Florida and the Nation, in our opinion.

I said Everglades National Park is unique in our national park system. Within it is preserved the southern end of the vast marsh wilderness—the famous “river of grass” that originally stretched in a broad belt from Lake Okeechobee to the multiple estuarine outlets of the Shark and Harney River systems.

Within it also is preserved much of the estuarine terminus of the drainage of the Big Cypress Swamp, a natural ecological region that characterizes much of Collier County in southwestern Florida.

One of the remarkable things about it, the characteristic that sets it apart as a natural preserve in all our national parks, is the abundance and diversity of its wildlife. Nowhere else in North America are there such numbers of large and showy wading birds; egrets, and other herons, including the Great White Heron that was discovered by Audubon and lives only in this area; roseate spoonbills in spectacular breeding colonies; ibises, wood storks, and others.

Here, subtropical species that are residents in the Everglades are joined in winter by hosts of migrants from the north, providing for the human visitor a bird show of Barnum & Bailey proportions. More

bald eagles nest in Everglades National Park than in any area of comparable size south of Alaska.

Under normal conditions of water flow which we are seeking to restore, the estuarine waters of the national park provide broad brackish areas of incomparable biological richness.

These are the spawning and nursery grounds of hundreds of marine species producing a sport fisherman's paradise and, among other benefits, the multimillion-dollar annual harvest in the Tortugas shrimping grounds.

Americans have shown their appreciation of this wonderland. Florida's tourist industry has profited accordingly. In calendar year 1968, visits to Everglades National Park totaled 1,251,000. The trend is up. In 1967, the total had been 1,098,000.

The importance of the sport fishery has been documented by the Institute of Marine Science of the University of Miami. On the basis of creel census studies at the Flamingo marina in the park, some 50,000 anglers spent 340,000 hours fishing and caught 600,000 pounds of fish in 1963-64.

Projecting these figures to the whole park, the University of Miami scientists estimated a total of 200,000 anglers during the 1963-64 season, and a probable total catch of 2.4 million pounds of fish.

The flow of fresh water into and through the park is essential to the entire ecology of this remarkable area.

Research studies by the U.S. Bureau of Commercial Fisheries and by the marine scientists of the University of Miami, some of which we have had a chance to review, show beyond any doubt that the rich shrimp fishery of the Tortugas is dependent upon the proper degrees of freshness, or brackishness, in the estuaries of the national park.

The shrimp are smaller and the harvest declines each year following freshwater shortages in the national park. This is because the young shrimp cannot thrive and grow properly under hypersaline conditions.

The success of the sport fisher is likewise related to the extent and productivity of the brackish water zone; and this is regulated by the inflow of fresh water.

The freshwater marshes and sloughs and the brackish water zones are also the food-producing zones that sustain the bird populations and the other wildlife for which the national park has long been famous.

Many forms of wildlife have been seriously depleted during recent years when natural drought and the manmade water shortage combined to push the national park to the brink of permanent disaster.

We are now confronted with a situation wherein the natural drainage of water southward through the Everglades from Lake Okeechobee has been forever altered. The levels of the lake itself are subject to manipulation and control. Vast areas just south of Lake Okeechobee have been turned into agricultural lands.

Below that the waters are manipulated by canals and contained by dikes within the conservation areas that are part of the control system of the Central and Southern Florida Flood Control District.

Four years ago, Mr. Chairman, the National Audubon Society launched a campaign to alert the Nation to the harsh fact that man-made water diversions and barriers were killing the national park by shutting off the flow of fresh water from the north.

We commissioned the noted ecologist and author Peter Farb to study the problem and write an article for Audubon magazine, an article that was later reprinted in Reader's Digest. I submit for the record a copy of Mr. Farb's article, "Disaster Threatens the Everglades" as it appeared in Audubon of September-October 1965.

Senator NELSON (presiding). That will be printed in the record at the end of your statement.

Mr. STAHR. Thank you, Mr. Chairman.

At about the same time, the Corps of Engineers requested, and received, authorization by Congress to make a new study of the design and operations of the central and southern Florida flood control project with a view to improving facilities for delivery of water to the national park.

The National Audubon Society supported the new study. In 1966, my predecessor, Dr. Carl W. Buchheister, president of the society, appeared before appropriation subcommittees of both the House and Senate to urge funds for interim measures recommended by the corps.

The funds were granted, and work was started on enlarging and extending the Miami, the North New River, and the L-67 canals through which larger quantities of water could be delivered to the park.

Its study completed, the corps last year asked Congress to approve a plan that includes storage of additional water in Lake Okechobee from which, via the new and improved canals, the essential fresh water can be supplied.

Again the National Audubon Society supported the plan in a statement presented at hearings held by the corps in Florida, and in letters to the Public Works Committees of both Houses and Senate. The plan was approved in the omnibus Rivers and Harbors Act of 1968.

Senator NELSON. May I ask a question?

What is your view of the corps seeming to take the position that they can't guarantee the 315,000 acre-feet into the Everglades without agreement from the flood control district?

Mr. STAHR. My own opinion is that they do have the authority, and I would go so far as to say the responsibility. I can understand their desire, which is a laudable one as long as it works, to work with, cooperate with, and give reasonable running room for the views of the State of Florida, the flood control district, and so on.

This kind of cooperation is useful provided the objectives are shared objectively. But priorities do have to be established.

I am coming in my testimony in a moment to an instance of what appeared to be the establishment of a priority. They need to be stuck with, when they are proper.

I believe the corps has the authority to control the water in that area.

Senator NELSON. Isn't it correct that in letters exchanged with the Interior Department, and in proposing a modification of the water project, one of the reasons the corps wanted the project change was to be able to assure a more adequate supply of water to the Everglades?

Mr. STAHR. Yes, sir. I think that is about as clearly in the record as one could get. Just to be sure that it wasn't forgotten, I have brought copies of an exchange of correspondence, to which I think you may be referring, which I intend to place in the record of this hearing.

Senator NELSON. I understand you to be saying in your testimony that your predecessor, speaking in behalf of your organization, endorsed such corps projects on the assumption, that one of the purposes was to guarantee water into the Everglades.

Mr. STAHR. That is quite correct, Senator.

Senator NELSON. The corps testified here a week ago. The record will speak for itself, but my interpretation of what the Chief of Engineers of the corps said was that there wasn't any necessity to settle the issue of guaranteeing 315,000 acre-feet now, but that we could wait until there was a real squeeze on the water supply and reach some kind of an agreement then.

Mr. STAHR. I have had some personal discussions in recent months and recent weeks, even, with some of the people in the corps, some of General Cassidy's colleagues.

He happened to be unavailable the day I was over there. I tried very hard to make the point that if you wait until the squeeze is on, you are inviting an intolerable situation. It is much better for everyone to have advance notice, to understand what the rules of the game are and are going to be, and to make their plans accordingly, rather than to let development run riot and then everybody start scrambling in a crisis situation for an adequate amount of total water.

I am not sure I carried the day in that discussion, however.

Senator NELSON. I had the same discussion.

There is authorization now, if my memory is correct, to add 2 feet to the dike around Lake Okeechobee, to increase its capacity, and a proposal to add another 4 feet, which would make a total of 6 feet, which would add, I believe, 2,700,000 acre-feet to the capacity of the lake.

Do you, representing your organization, feel that we had, or had not ought to appropriate the funds for these additions, since the Federal Government will pay two-thirds of it, until we have the necessary guarantees of the 315,000 acre-feet?

Mr. STAHR. I think it would be highly desirable to achieve such an understanding. If possible, it would be desirable to legislate those guarantees.

I would hesitate to go so far as to say that if it is found to be impossible to get the guarantees, too, that the project should be abandoned.

I think maybe somebody has us over a barrel a little bit on that one, because we do need the additional water. If it isn't there, then the future is in jeopardy no matter what.

But since this is a relatively long-range project, I would think it is of the highest importance that a clear understanding of the priorities on the use of that water be reached in the process of developing that water supply.

Senator NELSON. When you say guarantees, if there isn't any water you can't guarantee it. But a formula could be worked out in which first you recognize that the park is entitled to 315,000 acre-feet. Then

if available water supplies were reduced by 10 percent in a year of shortages, the formula could provide that you would not take all that out of the 315,000 acre-feet, but that you would instead reduce the 315,000 by 10 percent, and reduce the shares of other current users similarly.

My point is if we are going to add 2,700,000 acre-feet in addition to the capacity that is now there, and we are going to pay two-thirds of the cost of it, we must have a guarantee that the Congress' intent was to protect the integrity of the park, which would require such a guarantee. And unless there is a guarantee, population growth that is increasing the water demand will lead to a situation where, when you are short of water, it will come from the park's supply.

As a matter of fact, one of the witnesses last week who was a strong supporter of the park said that the first priority will be human need, the second priority is the agricultural need, and the third priority will be the park and whatever other competitors there are. I have no doubt if you develop a population area there, that when there is a water supply shortage you will take the water from the park supply, unless there are guarantees to the park now.

Wouldn't you agree with that?

Mr. STAHR. I would, indeed. I think, first of all, I should point out the reason I used the word "priorities." It was simply a recognition of your point, that if there is less than the minimum water needed you can't guarantee the minimum.

But what I have urged with the corps is that agreement be reached that at least future new users of water from that source be the lowest priority; that new users come in there knowing that they are going to be the last on the totem pole if there is a shortage.

I think it might be going beyond the realm of practicality to say that the park won't share any net shortage with established users now.

But unless we run up the flag and have a definite understanding about the future now, future users will then be present users and you will have this continuing fight.

Human nature being what it is, I think you would be guaranteeing, without the guarantees for the park, the death of the park.

Senator NELSON. Future users, if they happen to be municipalities that develop, would, in fact, without agreement now, achieve the position of first priority over the park, wouldn't they?

Mr. STAHR. They would, if steps are not taken ahead of time, I would feel.

Senator NELSON. Please proceed.

Mr. STAHR. During the studies of the problems pursued jointly by the corps and the Department of the Interior, there was an exchange of letters between the Chief of Engineers and the Secretary of the Interior in which it was agreed that the minimum fresh water requirement of the national park is 315,000 acre-feet annually.

I submit for the record a copy of a letter to Secretary of the Interior Stewart Udall dated June 14, 1968, from Maj. Gen. F. J. Clarke, the Acting Chief of Engineers, who is to succeed General Cassidy; a copy of a letter of June 12, 1968, addressed to the Chief of Engineers by Dr. Stanley A. Cain, Assistant Secretary of the Interior, to which General Clarke's letter was in response; and also additional comments

by Secretary Cain in a letter of July 25, 1968, to Lt. Gen. William F. Cassidy, Chief of Engineers.

In the first mentioned letter, General Clarke stated what we considered a guarantee of delivery in these words:

The concept expressed in the report and in the graphs is to provide a supply of water to Everglades National Park that will not be diminished as the requirements to support growth and new development increase. Accordingly, under authority of the Secretary of the Army, the Chief of Engineers will insure the project is regulated to deliver the water requirements of the Everglades National Park as so set forth in the report.

This letter, as you mentioned, became a part of the official project report upon which Congress acted last year. Since then, however, there has been continued dispute between the corps and the Department of the Interior as to what this agreement, or assurance, really means.

Mr. Chairman, this committee can render a signal public service by asking the Department of the Army and the Department of the Interior to clear up this point.

It is the view of the National Audubon Society that the Federal Government, as the custodian, for the people, of the national park, and as the chief contributor of funds for the central and southern flood control project, has not only the authority but the obligation to guarantee an essential, minimum annual flow of fresh water into the park, assuming, of course, that there is water available in the first place.

The State of Florida is understandably jealous of what it sees as its right to regulate the disposition and use of water within its boundaries.

But I can't believe the people of Florida, and therefore the Government of Florida, would wish to destroy one of the State's greatest tourist attractions, and the ecology that supports an important segment of its fisheries industry, by killing the national park through water starvation.

There are other ways to supply the water needs of metropolitan Dade County than by diversions from the Okeechobee-Everglades basin.

May I now turn to the threat of the jetport. I wish first to make clear that neither the National Audubon Society nor the other conservation organizations with whom we have associated ourselves in seeking a solution to this problem have argued that no new airport facilities are needed to accommodate the growing travel economy of southern Florida.

We do insist the site now proposed by the Dade County Port Authority is in the wrong place. We so insist for the following reasons:

The proposed jetport will be an industrial, commercial and residential complex equivalent, if and when—and I hope it is never—fully developed, of a sprawling city of at least a quarter-million people.

The pollution problems it will create will be worse than those of a normal city and impossible of effective control or abatement. No one has suggested a way to eliminate the combustion outfall of jet engines, much less contain it.

This outfall is going to settle on the national park itself and into broad areas of its vital watersheds—into the Big Cypress Swamp where the jetport is proposed to be located, and into the Everglades now contained within the conservation areas of the flood control district.

Senator NELSON. Do we know what that combustion outfall is?

Mr. STAHR. Not being a scientist, I would not want to testify on that point. There have been studies, I understand, at other airports. I am not quite sure how firm the knowledge is.

This bothers me even more, because here, again, we are going in and taking a huge risk, not being absolutely sure of what the effects are going to be.

I would be very happy to try to assemble such data as I can on this problem. It is not a minor problem. As a matter of fact, if you ever left your car parked for a day or two at a modern airport, I am sure you have had the experience of coming back to find the windshield and the outside of the car covered with a visible film. That is the outfall of petrochemicals that are manufactured by the enormous burners that power the modern jet aircraft.

Going back to Mr. Smith's point about the use of land, it would be an ironic thing, indeed, if the law were interpreted to say that the abuse of land can be tolerated because it is not a use of land.

Clearly, dumping this kind of stuff on the public lands around there is an abuse of it, and dumping anything on land, it strikes me as a matter of commonsense rather than as a lawyer, is some kind of abuse of it.

Senator NELSON. Are there any studies that you are aware of on what effect this exhaust falling down on the water might have on the reproductive capacities of certain types of insects that live in the Everglades?

Mr. STAHR. Let me be sure I have the question, Senator.

Senator NELSON. If you spray oil on the surface of a pond, you can stop the reproduction of the mosquito. I am wondering if the exhaust from planes, would create an accumulating film and if there have been any studies on what effect that might have on insects in the Everglades.

Mr. STAHR. I doubt that any studies have been made by those who are working on this jetport, but I have just been advised that a witness who will be appearing today, the representative of the Sierra Club, does have results of some studies of the kinds of pollutants that will be produced by this project and assessments of their probable effects.

Senator NELSON. Very well.

Mr. STAHR. Another form of pollution that cannot be contained or abated is noise. The earsplitting, nerve-rending roar of big jets is going to be a constant environmental depressant over much of the national park.

I am not talking now about the environment for wildlife, but the environment for people. The wilderness tranquillity of Everglades Park, one of the qualities that attracts its millions of visitors, will be seriously damaged.

The sewage effluent from the jetport city could be treated and piped to the Gulf of Mexico. But even were this to be done the water supply of the western third of the national park would be depleted to the extent of the outfall to the sea.

The pollution resulting from split and leaking oil and from the exhausts of thousands of automobiles on the jetport parking lots and on the approach roads is not going to be contained and treated—any-

more than it is contained and treated on the streets of any other city.

Advocates say the proposed thousand-foot-wide transportation corridor connecting the jetport with Miami and the west coast of Florida can be designed so as not to impede the flow of water toward the national park. Such a great roadbed can probably be created only by dredging fill from either side and packing it into a great, unnatural ridge.

No matter how many watergates the engineers build under the roadbed, the hydrology of the Everglades and the Big Cypress is certain to be changed, and many delicate ecological mechanisms altered forever.

You had testimony last week of the nature of that waterflow. It is a very slow moving sheet of water and can't be equated with water flowing through prescribed channels under some highway.

I haven't even mentioned the almost inevitable application of pesticides that you have—that will accompany and follow the development of the jet port and its backup facilities—poisonous chemicals that will find their way into the national park.

In summary, Mr. Chairman, a jetport at this site is incompatible with the purposes for which Congress established Everglades National Park for the benefit of the people of Florida and the United States.

The question is not one of "people versus alligators," as some have tried to make it appear. The question is, even with us, the welfare of people. In this context, as the phrase is so glibly used, alligators are merely symbolic of great and irreplaceable natural resources that are essential to the economic and social welfare of people, and most particularly to the present and future residents of southern Florida.

I recognize there are some there who say I have no right to speak for them. I assure you that there are many there who will say I am speaking for them.

Moreover, in our view, any expenditure of Federal funds in support of this project violates the policy directive written by Congress into section 4(f) of the Transportation Act. That is a point which was made earlier in Mr. Smith's testimony.

It is not too late to find another site. We insist the search be instituted without delay. There are areas of State-owned land within a feasible distance of Miami that should be considered, and surely an equitable exchange can be worked out with the Dade County Port Authority. There are other possible alternatives that I shall not go into.

Everglades National Park is the property of all Americans, held in trust and managed for them by the Federal Government.

I know this committee, which has been instrumental in building our national park system, will remain vigilant and aggressive in preventing its destruction. Everglades, our most threatened national park, stands most in need of your protective influence.

Mr. Chairman, I have been asked particularly to advise you that the Tropical Audubon Society of Miami, Fla., wishes to be recorded in opposition to the jetport site. A letter from Mrs. Alice C. Wainwright, president of the Tropical Audubon Society, is submitted for the record.

The Wilderness Society, by request of Mr. Michael Nadel, assistant executive director, also asks to be associated with my statement. The

Wilderness Society will submit a separate statement for the record.

I should like to request permission to file a supplementary statement on behalf of the National Audubon covering details that I didn't want to take up your time with in this presentation.

Let me congratulate you for holding these hearings and for considering the views of the National Audubon Society.

Senator NELSON. We thank you for your appearance.

(The documents referred to follow:)

TROPICAL AUDUBON SOCIETY, INC.,
Miami, Fla., June 3 1969.

MR. CHARLES H. CALLISON,
Executive Vice President,
National Audubon Society,
New York, N.Y.

DEAR MR. CALLISON: It was good to have a chance to talk with you on Memorial Day about the jetport issue. Sorry to have to disturb you on the weekend; but I felt the information was important and that possibly you might be working on the jetport material at home.

The purpose of this letter is to confirm our request that Dr. Stahr include in his statement before Senator Jackson's committee that Tropical Audubon Society wishes to go on record in opposition to the Everglades jetport site.

Sincerely yours,

ALICE C. WAINWRIGHT,
President.

[From Audubon Magazine, September-October 1965]

DISASTER THREATENS THE EVERGLADES

Man's bungling has cut off the water supply from sanctuaries, wildlife and the national park. A Book-of-the-Month Club author presents a scorching report of scandalous conservation conditions, after probing behind the scenes in Washington and Florida

(By Peter Farb)

(Peter Farb is the author of many books and articles on nature and conservation, including several articles which appeared in Audubon Magazine. His book "Face of North America," published in 1963, was a Book-of-the-Month choice. Mr. Farb conducted this no-holds-barred investigation of the Everglades National Park drought problem in June. He made repeated field trips to the drought area and key sources of water denied Everglades. Mr. Farb has enjoyed a long familiarity with both Everglades and projects of the U.S. Army Corps of Engineers, whose water conservation policies he takes under review in the accompanying article.)

"Here is land tranquil in its quiet heauty, serving not as the source of water, but as the last receiver of it," said President Truman in 1947 when he dedicated Everglades National Park for all the people of the United States in perpetuity. It is to the natural abundance of water, he continued that "we owe the spectacular plant and animal life which distinguishes this place from all others in our country."

I visited Everglades National Park shortly after its dedication and there saw a truly unique water park—a living museum of soggy saw grass as far as the eye could see, majestic cypress forests, and coastal mangrove swamps interlaced by a network of winding streams.

Thousands of wading and water birds—egrets and heron, ibis and spoonbills, cormorants and storks—filled the air over an area larger than the state of Delaware. It was the only place on the continent where I could see alligators in abundance, or any crocodiles at all; here also were sea cows, tree snails, tree orchids and the only panthers east of the Mississippi.

Last June I visited Everglades National Park again, exploring the park on foot and by car and by low-flying airplane, crisscrossing it up and down and from side to side. Little more than 15 years after it was established, I found no Eden but rather a waterless hell under a blazing sun.

Everywhere I saw Everglades drying up, the last drops of water evaporating from water holes, creeks and sloughs. Thousands of ponds that once looked

from the air like fragments of a broken mirror were shriveled and caked. The saw grass was a brown and lifeless tinder; during my visit the sky was darkened by great pillars of smoke billowing from a rampaging, crackling fire.

I revisited a place that had been a favorite on several previous trips: the Anhinga Trail, that man-made boardwalk into the heart of a story-book jungle. The once-sparkling waters of the slough I now found a muddy soup in which floated the carcasses of gar and other fish. Alligators and turtles burrowed into the suncaked mud in a search for water. The anhingas, or water turkeys, for whom the trail had been named, no longer could be seen swimming with their snakelike heads above the water; in fact, all except one forlorn bird had fled. Trees that should have been festooned with egrets and other birds were lifeless. Only the vultures seemed to be reaping a bonanza from the interminable drouth and the mass extermination of many kinds of animals to whom water is life.

Other national parks preserve geological or scenic features of our continent—but Everglades is the only national park created to perpetuate wildlife. This wildlife community, with its multiplicity of invisible strands that link all animals and plants, is considerably more delicate than a mountain or a canyon; it is easily thrown out of balance, and it can be destroyed so quickly that there is little opportunity to save it. Yet today this jewel in our chain of national parks is threatened by the folly of man, selfish interests and the shame of a water-control project that is proving a bottomless well for taxpayers' dollars.

Everglades today is dying of thirst because man has dammed, diked, ditched and drained the lands bordering the park on the north, cutting off the natural southward flow of water.

"It can be said categorically that the very existence of Everglades National Park depends upon the supply of fresh water flowing into it from the north," states Dr. Clarence P. Idyll of the Institute of Marine Science of the University of Miami. "Without this water the area will cease to be unique and its justification as a national park will disappear."

This plain fact emerged from my recent visit to the Everglades: *There is a shortage in Southern Florida not of water but of clear-headed ways to present its enormous waste.* Because of unbelievable bungling, the managers of the flood-control project that borders the park dump more water into the sea in one season that the park could use in years. And because of engineering miscalculation, about two times as much water now escapes into the Atlantic Ocean through porous rock alone than is required to satisfy the park's entire water needs.

How did such a situation ever arise? In 1947 a hurricane-driven flood hit South Florida; in 1948 Congress approved a project of the U.S. Army Corps of Engineers to control future flood waters. The Corps' engineering studies at the time led them to assure the National Park Service that the project "would not damage or interfere with this great national park." In fact, the Corps stated confidently that the project would bring benefits to Everglades: "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 fire and other damage which accompanies periods of drought."

This plan provided for the biggest earth-moving job since the building of the Panama Canal. The Corps might have prevented future flood damage much less expensively—simply by buying up all of the flood-damaged property, at a total cost of no more than \$12 million to \$20 million, and letting it be flooded. Instead, it proposed a project with a cost at least 20 times the value of the entire flooded area. This project, originally estimated to cost \$200 million, has now soared to \$381 million—and some knowledgeable observers believe that eventually it will cost more than half a billion dollars!

The explanation for these burgeoning costs is that the project was approved for flood control "and other purposes"—and the other purposes have become much more important, and expensive, than simple flood control. In reality, the Central and Southern Florida Flood Control Project, as it is officially known, is concerned with floods only in a minor way; it is really a vast land reclamation project. It involves the reclamation of more land than all the irrigated acres in the famed Western big-dam projects.

The 18 Florida counties covered by the Central and Southern Florida Flood Control Project are larger than the combined areas of Connecticut, New Jersey and Delaware. The total length of the levees alone, put end to end, could encircle the states of New Hampshire and Vermont. Construction is only about 40 per cent completed, but there are already in operation about 1,400 miles of canals and levees, 75 dams and spillways, several hundred smaller water-control structures, and 11 pumping stations.

The Corps of Engineers has gone into the water business in the biggest way ever seen on this continent. Yet, in these times of massive federal subsidies to farmers not to produce crops, through Soil Bank payments, this project aims to raise production on present farmland—and to bring an additional 735,000 acres of land into agricultural use. And 80 per cent of the cost of this project—for the benefit of a few large landowners and real-estate developers—comes out of the pockets of the nation's taxpayers.

Unlike other federal water projects, which seek to develop a region of the country or a whole river basin, this project lies wholly within the boundaries of one state. Hence the federal authority to allocate water or to see that it is managed in the interests of the nation is severely limited.

In fact, the Corps states that its role in Florida is confined solely to the flood-control aspects of the project. It thus gave the state of Florida a gift worth upwards of \$300 million—and the state in turn passed on control to a five-man governing board that so far has represented only real-estate and financial interests. This board holds the keys to the gates that keep water from flowing into the park. Its position has been that farms and new developments get first call on as much water as they need. What is left over goes to the park; but in the past four years scarcely a trickle has been left over.

There is sufficient water, an abundance of it, just to the north of the park boundaries, in the project's "conservation areas." These are immense storage pools as large as the state of Rhode Island. The rub here is the word "conservation"—for this is not the familiar conservation of John Muir or Aldo Leopold, but rather the saving of water simply by depriving a rightful user, the national park, of it. When I flew across the northern borders of the park I saw a sharply etched dividing line between the parched land of the national park and the abundant water just to the north in the conservation areas.

Yet the park's prospects for getting any substantial amounts of water from the conservation areas seem to be bleak indeed. The conservation areas must have a tremendous surplus of water before the governing board allows any to flow southward to the park. But there have been dry years, and the evaporation of the rain that did fall has been very heavy; also, seepage through the rock underlying the conservation basins has been larger than anticipated.

It will probably take a year of at least a 65-inch rainfall to get a surplus of water into the conservation areas so that at least some can be released to the park. Such a rainfall is unlikely: In the past quarter of a century there were only three years in which that much rain fell.

Witness how the project mismanages the immense amounts of water it already has available to it. This past spring the park was literally drying up. It appeared as if the only water that would ever flow through the four gates would be the bottleful of Everglades water symbolically smashed on them at their dedication. But to quell angry conservationists across the nation and adverse editorials by local newspapermen, such as John Pennekamp of *The Miami Herald*, one of the gates was finally opened—a distance of exactly one inch and for only a week. Scarcely more than bottlefuls flowed into the immensity of the park, an amount of water equivalent in its beneficial results to spitting on a forest fire to put it out. And at the same time that this pittance of water flowed into the park, a volume of water nearly *five hundred times as great* was released from the project to flow to the sea, utterly wasted, as part of the lowering of Lake Okeechobee before the flood season.

Spokesmen for the flood-control project have accused conservationists of being more interested in birds than in people. "This is a totally fallacious argument," I was told by George B. Hartzog, Jr., director of the National Park Service. "The question is not whether the park exists for people or for birds. The park was created for people—and the real question is whether we will preserve something of tremendous value to people or sit by and see this great possession destroyed."

Much of the amenity of Southern Florida that attracts tourists is due to the park. Last year about 800,000 people visited the park, bringing money to the state and to the area; in a few years, if the park is not destroyed, the number of visitors can be expected to pass one million yearly. The multimillion-dollar Florida shrimp industry—dependent for survival on national park waters as a nursery for young shrimp—supplies more income to the state than all the other products of the sea combined. Surely Florida is not so water-poor that it needs to leave Everglades National Park with an abiding thirst—nor so rich in natural areas that it can afford to destroy one of its prime assets.

To understand the water needs of the park, you must first understand the Everglades, Southern Florida and the kinds of plants and animals that have

become adapted to living there. Immense Lake Okeechobee—second only to Lake Michigan as the largest fresh water lake wholly within the original 48 states—is the liquid heart of Florida. South of Okeechobee lies the Everglades—not a vast jungle or swamp, as many people envision it, but a great, curving river of grass that stretches a hundred miles southward to the Gulf of Mexico and is 70 miles wide in places.

The dominant plant of this vast waterway is a tall sedge, commonly called saw grass, which shoots its swordlike spears 12 feet into the air out of the muck. One usually thinks of vegetation as belonging to a land environment, but in the Everglades most of the plants are clearly associated with water. More than half of the plants grow only in brackish water, and nearly all of the remaining plants require a flooded soil for upwards of nine months each year. Even the peat soils of the Everglades are the kind that are formed only under standing water.

Similarly, practically all of the animals of the park are aquatic or depend heavily on large amounts of water for their survival. The glamour birds—those long-necked, long-legged egrets, heron, ibis and spoonbills—and the alligators, the crocodiles and the otters are only the dramatic end products of complex food chains that begin with tiny aquatic creatures such as rotifers and mosquito larvae and lead up to fishes, frogs and reptiles.

The park has 47 species of amphibians, every one of which requires a pool of water to carry out its life cycle. There are 24 species of reptiles that need water in which to live or to find their food. Of the 200 bird species in the park, 89 are nearly totally dependent on aquatic food for survival, and many of the remaining 111 species are partially dependent. Most of the 12 species of mammals in the park are aquatic or amphibious (such as the sea cow, otter, water rat and so forth). Even the most land-based of these mammals, the deer, receives the bulk of its food from water lilies and other aquatic plants.

Knowledgeable observers have been able to detect many changes in the face of Everglades National Park after the four years of water starvation which resulted from the closing of the gates to the north. There has been an increase in land animals (such as raccoons, squirrels and rats) and a corresponding decrease in populations of animals linked directly to water (such as otters, alligators and wading birds). Saw grass is giving way before the march of the trees; mangroves are moving inland as salt water from the Gulf of Mexico, which the seaward flow of fresh water had kept back, now sweeps farther inland with every high tide.

The decimation of wildlife in the park can be seen most vividly by looking closely at one species for which accurate counts exist. Such a species is the wood stork (*Mycteria americana*), the only North American stork, its nesting populations limited to South Florida.

The wood stork (also called the wood ibis) is a totally aquatic feeder. It scratches in shallow ponds with its feet, so muddying the water that small fish and other animals rise to the surface where they are seized in the stork's powerful nine-inch bill. Although most of the stork's prey consists of small fish, almost any water animals—snakes, frogs and tadpoles, insects—also are eaten.

The wood stork's decline in the past few years is a clear symptom of the wastage of Everglades' wildlife resources.

Only a decade ago the noted Florida ornithologist Alexander Sprunt, Jr., wrote that this bird "enjoys a rather static condition of well-being in Florida." But that was written before the floodgates were closed. By last winter the storks had already suffered a severe decline, and with aquatic food in short supply it appeared that they would not even nest at all.

Finally, in February about 1,650 pairs began to build nests in the mangroves of the four major rookeries in the park. But within a month the rookeries were almost completely deserted. At the Cuthbert Lake Rookery, for example, 400 pairs built nests in February—but by mid-March several dozen crows and vultures were on the abandoned nests, feeding on the eggs and dead young. Throughout the park a total of only about 200 young birds survived long enough to leave the nest, a mere twentieth of the young that ordinarily would be reared during a successful nesting season.

This year's nesting failure was nothing new; the same thing had happened every year since the flood of waters to Everglades was shut off. In the past four years the total population of wood storks in the park has been cut in half. "Assuming that the present conditions continue, in another decade the southern Everglades population of wood storks will have passed the point of no return," I was told by Dr. William B. Robertson, Jr., biologist at Everglades National Park.

The only other large breeding colony of wood storks is at the National Audu-

bon Society's Corkscrew Swamp Sanctuary—and that colony also has been failing in recent years because of a man-induced and drouth-caused water shortage. If these two South Florida populations die out, it will mean the extinction of the species in the United States.

There is no doubt that the decline of Everglades' wood stork is due to the inadequate flow of fresh water since the gates were closed. The park's 1,650 pairs of wood storks require upwards of a quarter of a million pounds of live fish during the nesting season alone. And this enormous amount of food must be provided within a flight radius of about 15 miles from the nest sites.

In most years before the flood-control project, when water was abundant, the ponds were choked with fish and this immense amount of food could be obtained. But the ponds have first shriveled and then dried out completely; the birds have had to search ever farther afield for a diminishing supply of food, with the result that they finally abandoned their nests.

A mass death by thirst was narrowly averted in the park last spring. Operation Survival by park rangers resulted in the blasting of about 20 water holes which could at least sustain a minimum of Everglades life; more than a hundred alligators were captured and moved from dried out holes to those still wet; fish were scooped out of drying watercourses with dip nets.

Only a minimal water supply is assured for next year: The National Park Service is in the process of digging a huge well—or sump—4,000 feet long and 20 feet deep, at the northeastern end of the park, from which it will pump 73,000 acre-feet of water (that is, enough water to cover 73,000 acres to a depth of a foot) in a year. By comparison, the average annual flow of water into the park before the gates were closed amounted to three and a half times that. The sump is clearly only an emergency measure, somewhat like dropping hay in winter to starving deer herds. It will do no more than allow a nucleus of the park's wildlife to survive.

The fact is that no relief for the park's thirst is in sight. In response to urgent pleas by an outraged citizenry, Congress has asked the Corps of Engineers to submit a report next year on what can be done to ease Everglades' water shortage. Most conservationists are not at all optimistic about this study—for it asks the Corps to evaluate its own project and to report on its own errors. And the cost of this one study is about twice the cost of the National Park Service's emergency sump.

The park is even threatened by new intrusions under the guise of conserving water. The most recent, and potentially the most dangerous, has been put forth by residents of the west coast of Florida who are boosting a coastal road along the southwestern margins of the park which would connect Key West and the community of Everglades.

This road, they state, would act as a dam, keeping fresh water from flowing out of Everglades to the Gulf of Mexico. But such a road would also rip apart the entire fabric of life in the park. It would form a barrier to the beneficial mixing of fresh water and salt water and thus would eliminate the wide brackish zone, the "vital area" of the park that in places is a thousand times more productive of life than either fresh water or salt water alone.

Yet another threat comes from various suggestions to utilize the water that flows off the agricultural areas to the north of the park—areas that have been doused heavily with pesticides. Until now, Everglades National Park has been one of the largest areas in the United States which has been free from pesticides; but any scheme to flood the park with water from the agricultural lands would necessarily give the wildlife in the park a poison bath.

The National Audubon Society has been deeply committed to the welfare of Florida's wildlife for more than half a century—first in eliminating the egret plume-hunters, then in providing warden protection for spoonbills and other birds, in taking the lead to establish the national park itself, and in sponsoring wildlife tours that made people from all over the nation familiar with this unique area. It is because of this long-term involvement and familiarity with the area that the National Audubon Society urges the course of action outlined on this page to rescue Everglades National Park from the very edge of disaster.

The national parks system, despite past threats to its survival, has never yet lost a park. Unless the people of the United States unite in demanding immediate action, it may happen for the first time in Florida. The park would then be lost, not through the crackling of fire, the roar of earthquake or the whine of timber-hungry chain saws, but through the bungling and self-interest of a handful of people in Florida.

TO RESCUE EVERGLADES NATIONAL PARK

Disaster is no longer merely stalking Everglades. It now stands astride the park's wondrous fabric of living things, ready to tear it asunder.

To permit the death of this great national park would be a national tragedy. The people of the United States, who own the park and who have unwittingly supplied the tax money that has been used to strangle it, must not let death come to Everglades. In future years they should not lament a loss that occurred through inaction or unconcern when it was still possible to save the park.

Based upon Peter Farb's penetrating analysis of the problem, and upon co-ordinated studies by members of the National Audubon Society staff, the Society makes the following urgent recommendations. These are action proposals—and we have already gone to work.

1. *Assured water.*—The park must be assured of 250,000 acre-feet of water a year, the average flow before the gates were closed, until such time as the engineering and management problems are solved. The release of this water should be in the age-old pattern of flow, with abundant water coming during the wet season, lesser amounts during the dry.

2. *A permanent engineering solution.*—This must be found. One solution, already partly provided for in the authorization of the project itself but for some unknown reason never put into effect, is to lead water from Lake Okeechobee through the old Miami Canal to the gates bordering the park. The Miami Canal needs simply to be cleaned out and extended. This route would provide *six times* the amount of water that will be supplied next year by the emergency sump—and the total cost would be less than the money authorized by Congress for the Corps' study of ways to alleviate the park's water shortage.

A second step, proposed by the National Parks Association, is for Congress to authorize a deep-water reservoir in the conservation area north of the park. In both cases, the funds should be appropriated directly to the National Park Service to make the intent perfectly clear—that this water is for the park's exclusive use.

3. *A watchdog committee.*—There is no prospect that threats to the park will cease—in fact, they probably will grow greater in the coming years. The Society proposes the creation of a national committee both to maintain vigilance over the further construction of the flood-control project and to guard against other threats such as the proposed road-dam along the southern boundaries of the park; the proposed Alligator Alley, a highway from Fort Lauderdale to Naples; and the flowage of pesticide-poisoned water into the park from the north. Since the park belongs to all the people of the United States, this committee should be made up of national as well as local representatives.

4. *A research program.*—Long-range solutions demand long-ranges studies. It is essential that studies commence now, before the wildlife communities have been totally disrupted, to provide a more adequate understanding of the complex roles of wildlife and plants in the total ecology of the park. Too much of the National Park Service's past research has been of an *ad hoc* nature. This, too, the Congress must understand, and it must be willing to finance research adequately, if not so lavishly as it has financed the near destruction of Everglades National Park by the Corps of Engineers. One of these research projects should be a long-term study of pesticides, to be made while there are still no pesticides in the water entering the park from agricultural lands.

CARL W. BUCHHEISTER, *President.*

Senator NELSON. The record of this day's hearings will be kept open for 10 days for submission of any supplemental material you wish to submit. Do I understand you to say that the Wilderness Society will be submitting for the record a separate statement?

Mr. STAHR. Yes, sir. In addition to being associated with this one, they wish to say a few more things.

Senator NELSON. That will be included in the record when we receive it.

Dr. Stahr, we appreciate your appearance today in behalf of the National Audubon Society.

Mr. STAHR. Thank you very much, Mr. Chairman.

Senator NELSON. The next witness is Mr. Riley S. Miles, executive director, Water Users Association of Florida.

STATEMENT OF RILEY S. MILES, EXECUTIVE DIRECTOR, WATER
USERS ASSOCIATION OF FLORIDA, INC.

Mr. MILES. Mr. Chairman, I am Riley S. Miles, executive director of the Water Users Association of Florida. I have a very brief statement which I would like to submit for the record. I shall be glad to read it into the record or submit it, as you wish, sir.

Senator NELSON. Present it in any way you wish.

Mr. MILES. Thank you, sir. If you will indulge with me, I shall read it into the record.

We thank you for the opportunity to testify in these public hearings about the very serious problems involving fresh water resources in central and south Florida.

From the time it was organized 18 months ago by a group of Florida's leading citizens who represent conservation and wildlife groups, industry, finance, municipalities, agriculture, tourism—in fact, a cross section of the State's resources and economy—the nonprofit Water Users Association of Florida, Inc., has taken an active role in stimulating public interest and support for the vital, immediate formulation of sound plans for conservation and management of Florida's freshwater resources in the public interest, which means for the benefit of all users on an equitable basis.

A significant portion of the funds members have donated for the work of this nonprofit organization have been utilized to launch a public information program designed to refute with facts a tremendous volume of nationally published highly emotional misrepresentations, myths and misconceptions concerning the management of Florida's freshwater resources by the Central and Southern Florida Control District (FCD).

The purpose of our testimony is to bring before you gentlemen what we feel to be important facts regarding the controversy surrounding the management of these resources.

A common misconception is that that Lake Okeechobee almost continuously overflowed in a southerly direction before the construction of manmade levees. Early records show that this was a very infrequent occurrence.

Central and southern Florida is unusually flat. The slope in ground elevation from Lake Okeechobee to the southern end of the State, a distance of approximately 100 miles, is only about 1 inch in 1 mile, so that the direction of waterflow through the dense saw-grass prairie often depends on the way the wind blows.

Recognizing this as a significant obstacle to the delivery of water to Everglades National Park and the rest of the southeastern portion of the Florida peninsula, FCD project engineers included in its works a system of canals designed to transfer water from Lake Okeechobee to the valuable conservation areas and the park.

Without these canals and levees it would have been physically impossible for water to reach the park during drought years.

As you have learned in previous testimony, storage capacity of Lake Okeechobee is being increased. However, this new storage capacity will be useless unless nature provides the rainfall to fill it.

This fact was highlighted during the drought which the State experienced from 1962 to 1965, a time when concerned and well-intentioned conservationists blamed the FCD project for dry conditions

in Everglades National Park. The fact is, all of central and south Florida was dry from lack of rainfall.

The chief source of water which supplies Lake Okeechobee is the Kissimmee River Valley and the Upper Chain of Lakes—the headwaters of the vast system.

In 1962, because of the lack of rainfall, the chain of lakes in the upper Kissimmee Valley reached all-time new lows. Many of these vital lakes became virtual mudflats. This had a disastrous effect on fish and wildlife, as well as all other facets of central and south Florida's economy.

The severity of this drought is indicated by the drop in elevation of Lake Kissimmee from 55.8 feet above mean sea level in October 1960 to 47.4 mean sea level in August 1961—a decline of 8.4 feet in 10 months.

This was typical of all the lakes in this basin, the primary source of supply for Lake Okeechobee.

The drought continued until Lake Kissimmee reached an all-time low of 44.3 feet mean sea level in June 1962. It was so severe that the Kissimmee River was virtually dry. The river's flow into Lake Okeechobee was reduced to the almost unbelievable rate of 2.1 cubic feet per second. Normal flow of this major artery feeding water into Lake Okeechobee is 1,180 cubic feet per second.

We think it is significant to point out that there were no manmade works in existence to cause this drastic fluctuation.

This drought extended throughout south Florida and there was literally no flow of water for manmade works to block from Everglades National Park as alleged by misinformed individuals.

It is an equal misconception that manmade works in the FCD project have not materially benefited the park. Already this year more than 330,000 acre-feet of fresh water has been delivered to the park through the Tamiami Trail structures.

Without the current project works a vast quantity of this water would have flowed in its normal pattern to the tidewater section of the southeast coast and been wasted to the Atlantic Ocean.

Under heavy rainfall conditions as much as 70 percent of this water would have been lost to the ocean and therefore not have benefited the park.

There has been much pressure for a guaranteed supply of water to the park by those who claim that in its natural state it was always wet. Geological core borings prove the park sustained severe drought periods, even tremendous fires, which destroyed thousands of acres of native flora and fauna under natural conditions. With the completion of the FCD project works fires in the Everglades and other ravages of prolonged droughts will be eliminated.

The people of the State of Florida have a great stake in Everglades National Park. They not only donated the land that made the park possible but also donated \$2 million in cash to acquire areas not in public ownership. We think it is time that the true story of the great values of Florida's water conservation and management program be made available to the Nation.

Thank you, Mr. Chairman, for affording us this opportunity to present the views of the Water Users Association of Florida, Inc., on this important project.

Senator NELSON. Thank you very much, Mr. Miles.

You are not saying, however, I hope, that by setting up canals and flood control projects, man has improved upon nature so far as the quality and character of the Everglades are concerned, are you?

Mr. MILES. Certainly, the original work in Florida many years ago changed and altered the flow to the park. I think the central and southern Florida project will restore a great deal of the park's water supply. Not only that, it will, through its system, permit the transfer of Lake Okeechobee waters to the park down to a level in Lake Okeechobee of 12.5 feet mean sea level. This would be a vast improvement over nature, sir.

Senator NELSON. I haven't seen any instance of these kinds of works by man improving on nature.

I am not sure I understand your position respecting the issue of guaranteeing the water to the park, that is, the 315,000 acre guarantee. How do you view that?

Mr. MILES. I don't think you can guarantee water to the park or even to one human being in the State of Florida, Senator.

There is only one who can do that, and I hope you have a lot of influence with him. But when it doesn't rain, and when the entire system north of Lake Okeechobee goes completely dry, as it did in the years I just outlined, there is no water.

This is certainly an occurrence that happened many times before man ever set foot on Florida. I don't know what would happen to the ecology of the park if it got a constant flow of water. I understand that wild fires are some of the finest things that ever happened to our forests. Nature has some peculiar ways to work.

Senator NELSON. I don't think we have had any testimony from any ecologists or scientists saying that you want to keep the park constantly wet. I don't think that has been the position of anybody who is knowledgeable about it.

As a matter of fact, it is recognized by the park that fires are a natural and useful agent. As a matter of fact, they are conducting controlled fires in the park now in attempting to duplicate what nature once did on her own. We won't duplicate it as well.

Our intrusion there has resulted in the failure of natural fires to occur the way they would and clean out the sedimentary growth, to create a new habitat, such as the growth of new grasses and so forth.

The response of each witness who was opposed to a guarantee has been the same. They say you can't guarantee water if there isn't any. Everybody agrees with that, but I don't think that is the issue.

The issue is the establishment of a priority for current users which cannot be usurped by subsequent users; there is going to be an expansion, apparently, of the southeast section, so I am told, by opening up of more agricultural hands.

I am told there will be more growth, especially if there is a jetport. The testimony last week of one of the witnesses was that the first priority is the human priority, second is agricultural, and the next is the park.

The point I am raising here is that there are certain current, established users. Are you agreed that they should have first priority?

Mr. MILES. Senator, that is an extremely difficult question to answer. I think, as I see it, and I am pretty familiar with it—by way of background information, I served on the board of governors for this district for 9 years, 7 years as chairman. It is a very complex and diffi-

cult problem, I can assure you. Almost any move you make in one direction to improve the overall situation hurts a little bit in another area. It is a give-and-take proposition when you deal with water.

I would certainly say this, that I am fully confident that from here on out the works of this project, if we can only complete them—we are demanding a lot of a project that is 10 years behind schedule, only half complete now—if we can complete this project, and if we can bring into being some of the other fields of development in water resources that we are assisting in the work for, certainly the science and technology of a nation as great as ours can supply the water that we need for all users down there, including future growth, without deterioration to anything or anyone.

Senator NELSON. I am sure we can, but speaking for myself, I am opposed to the appropriation of any further Federal funds at all for any further development, unless we have some kind of guarantee for the park.

I interpret the exchange of letters of the Corps of Engineers with Interior: as to means that the corps agreed to assure the flow into the Everglades. I have read these letters, and the Corps of Engineers has backed off from that position.

It seems to me not unreasonable at all to say that the current users, the historical users, should have first priority, and that a formula must be established which provides that in times of shortages new users will be the last ones to receive water from the project, and current users will get a reduction, percentage-wise.

We are asking, that this be agreed upon before additional money is spent. From my view, and I think you will find it the viewpoint of conservation organizations in the State, we should not support the project with any further Federal money until some formula is made. Don't you think that is reasonable?

Mr. MILES. I was interested in the remarks you made a few moments ago in regard to a formula based on the present uses, needs and so forth, and the availability of water. It would be an extremely difficult thing to work out, but I think it is somewhat worthy—of pursuit and investigation. I was quite pleased to hear your remarks along that line. A different sharing benefit for subsequent users could be worked out. Until we make some additional scientific breakthroughs, there must be years when there will be an adversity of water that will have to be shared by all users. As you say, we could establish a formula up to a given point.

Senator NELSON. A specific example of a disturbing circumstance would be a shortage of water, if we unfortunately permit it to happen, after the creation of a jetport and the development of a city of 250,000 people.

There is no doubt in my mind that the situation would be such that those 250,000 people would have to have water. They have to have water for the city to operate. They have to have it to drink. They have to have it to survive. With that circumstance, there isn't any doubt at all that if there is a shortage and the city needs 315,000 acre feet that otherwise would go to the park, they would take the 315,000 and not one drop would go to the park from the canal works. I know that will happen.

It must be established in advance that if a city, unfortunately, develops there, and I hope it doesn't, that city would not be a first priority, and this would have to have preparations for piping water from

elsewhere, or for storage of surplus water. If you do that, communities won't grow where they don't belong. They don't belong if we have to take water from another user.

This is one of the things that disturbs people who are interested in the park.

I wouldn't think of going back to my State and saying I am happily supporting another \$160 million for flood control in Florida even if they won't guarantee us that that national park is going to have some assurances of its priority for water.

I will oppose that with every bit of energy I have on the floor of the Senate.

I don't understand why we can't get those assurances of the formula, recognizing current users' prior rights over any subsequent user.

You cannot guarantee that growth will not occur where it should not.

And they know they can win without a formula fight over using the park's supply for people's needs.

Mr. MILES. Of course, the entire Nation has a lot to learn about the control of its growth, and we are advancing a lot on that. At the same time, we know that we are going to have growth in all parts of the Nation. In this plan of the corps, and I have been through it very, very thoroughly and carefully, I think the corps projections for an adequate water supply to the year 2000 are well founded.

There are many different sources of water for different users. Agricultural use will not increase anywhere near in proportion to the rest.

In municipal supplies, the vast amount does not come from the surface waters we are dealing with in the parks. We also have to keep enough water in the ecological areas to preserve them. They are wonderful areas. The wildlife that abounds there is of significant value not only for recreation but preservation, too. It is just unfortunate that the drought that actually started in the winter of 1960-61 came into being before we had the conservation areas increased. It is also extremely unfortunate that we have not been able to get the project far enough along to increase the level of the lake to the currently authorized 15.5 foot level.

A great deal of water was sent out this spring. If this 2-foot increase had been made, it could have been saved and stored in the lake, with no discharges having been necessary. I am not sure we will anticipate completion of that facet by calendar year 1971; at the present level of funding, I am not positive it will take place by then, but it is a very important feature. Those discharges are not good on our estuaries.

Senator NELSON. All I am saying is I can't support using any additional taxpayers money, unless there is some formula guarantee protecting the park's supply against subsequent users.

If we don't have that, I think the whole business ought to be stopped. I don't understand how it is unreasonable, other than the fact, as some people apparently feel, that subsequent population growth being near the park should have the priority.

My view about that is that they shouldn't be there if they don't have the water and they shouldn't take the water at the expense of the park.

Mr. MILES. In a great many instances that is not park water and could not be park water. I think it is a difference in terminology, primarily, in assurances and guarantees. I don't understand the cause for alarm at all. I think it came about because of the drought situation. Certainly,

the State of Florida has a tremendous stake in the Everglades National Park and they do not intend to see any harm come to that park.

This emergency program was instigated a few years ago to get canals with a higher priority that we had not been able to construct, and we certainly appreciated the assistance of the Audubon Society and the Izaak Walton League in getting additional funding to go ahead and build the new Miami Canal and to put back into the statute the L-66, to transfer waters at the time of drought, about a \$3.5 million project, right now being finished.

The finishing touches are being put on the Miami Canal. This is the facet of the program that permits the transfer of Lake Okeechobee water to the park when everything is dry. The water would not normally flow across that vast expansion of saw grass with no slope.

Senator NELSON. As I understand the testimony of the Governor's representative last week, I wouldn't worry about the concern of the current Governor for protecting the park, but I am concerned about the position of the corps. And I am concerned about the position of the port authority. Then I am concerned about the position of any municipality that grows up and develops in the area of the airport, particularly where the water needs of that community are concerned. Nobody has any control over that kind of growth except the local municipality and the local county. And the new water need would be there.

All I am saying is if a community is going to grow there, they better be sure they have a supply of water. They ought to recognize that they are not a prior user. If we can't get that assurance out of the corps and the people of Florida, then I don't think we ought to continue the project.

I would wager that the people of the United States, if they understood the issue, would take that position, too.

Mr. MILES. I did not come here to talk to the area immediately west of the park and the general area of the western panhandle.

What I am discussing with you today, sir, is that there is a vast amount of improvement that does exist today in the central and southern Florida project.

When they finish the eastern levees of the conservation areas they broke the normal pattern of a great deal of flow of water to tidewater that went to the east coast and diverted it down through the conservation areas to the park. That is the reason I say the 380,000 acre feet the park has received this year would not have taken place without the use of the project because the water would have flowed to the east coast.

Senator NELSON. There is no shortage of water. It is a big surplus year.

Mr. MILES. That is true. There have been two other years since the drought where we have given them over 1 million acre feet. But without the project, great amounts of the water would have been lost to the sea. Possibly in 1966, when we had some very serious rains, in so doing, the water would have probably flooded some highly developed metropolitan areas.

I don't mean recently developed. In 1967, the downtown of Fort Lauderdale was completely under water, the main streets. I think we would have had serious flooding in the area of Fort Lauderdale and south, without being able to check the water, conserve it and divert it to the park.

Senator NELSON. That water, as you said earlier, was going to the ocean. It was not available for municipal or agricultural use. We put the Federal money in to make it available for agriculture that didn't have it before and municipalities that didn't have it before.

I am saying that with that investment, we ought to be able to guarantee a certain percentage of it to the park. It is not an unfair bargain. Before the dikes were in there, no municipalities used the water that went to the ocean, either. The same argument applies when they say the park didn't get the water previously because it went to the ocean. I say yes, and neither did a municipality or agricultural group get it.

Mr. MILES. I think there is an overemphasis on the amount of water that is used for either agricultural or municipal purposes. Most of the agricultural needs are north of that.

Senator NELSON. Conservation area 3.

Mr. MILES. Yes, and that is uphill from the supply.

Senator NELSON. That comes out of Lake Okeechobee. But they want that because it affects them, also.

Mr. MILES. I would say the benefits there are primarily a place to put the water off of agricultural lands, to reduce flooding and preserve the water rather than as a source of back pumping to the agricultural lands.

Senator NELSON. The containment of the water that would otherwise have gone to the ocean also recharges the Biscayne aquifer which is being drawn on all the way to Miami.

If you didn't have a recharge, you could lose that aquifer.

Mr. MILES. It is very important to the salt water salinity of that whole lower coast, including the park area. In other words, there is a great deal of benefit in this project.

Senator NELSON. I think there is a great deal of benefit and when you are able to tell me that the people you represent and the State are prepared to just set up a formula that guarantees this modest amount to the park, I will be happy to support the program. Unless they do, I will defeat it if it is possible.

Thank you.

Mr. MILES. Thank you. I appreciate the opportunity of appearing and your interest in this, Senator.

Senator NELSON. Thank you.

(Subsequent to the hearing, the following additional information was received:)

WATER USERS ASSOCIATION OF FLORIDA, INC.,
West Palm Beach, Fla., June 17, 1969.

HON. HENRY M. JACKSON,
U.S. Senate, Washington, D.C.

DEAR SENATOR JACKSON: Personally, and on behalf of the Water Users Association of Florida, Inc., I wish to express sincere appreciation for the opportunity to testify before the Senate Interior and Insular Affairs Committee on June 11, 1969.

I am deeply concerned over the testimony of Mr. Gary Soucie concerning United States Sugar Corporation and the South Florida Conservancy District. I feel that lack of understanding of the financing of the Central and Southern Florida Flood Control Project, the South Florida Conservancy District, and the Sugar Act of 1948, as Amended, created a damaging image of these Projects, as well as of the United States Sugar Corporation, during Mr. Soucie's testimony and the exchange that followed between Senator Nelson and Mr. Soucie. For the information of you and the Committee, I submit the following information and respectfully request that this letter be made a part of the record.

The South Florida Conservancy District was created by Special Act of the Florida Legislature and has been in existence for over forty years. This District

is supported entirely by taxes levied on the lands within the District. The cost of the construction and operation of these District water control facilities, to date, exceeds \$10 million. The present annual tax for operation and maintenance of these facilities is \$5.25 per acre. A plan for further increasing the conservation of these lands under the Watershed Protection and Flood Prevention Act, Public Law 566, is now pending. The Congress of the United States saw fit to create this Act to provide Federal assistance in the conservation of land and water resources and the prevention of damages by flooding of rural areas and important crop lands. This Act has been utilized widely throughout the United States and has proven successful and beneficial in all of the areas included in their numerous projects. This would certainly indicate that the Congress was wise in its implementation of this worthwhile program. The Work Plan proposed for the South Florida Conservancy District Watershed complies in every respect with the provisions of Public Law 566 and has been reviewed and accepted by those authorities designated by that Law for this purpose. Participation in this program to conserve the land and water resources should reflect credit on the landowners of this District.

Mr. Soucie makes reference to the United States Sugar Corporation receiving \$1.2 million under a United States Department of Agriculture Farm Subsidy Program. Reference to the Congressional Record would reveal that payments received under the Sugar Act of 1948, as Amended, are not a part of any farm subsidy program. For your information, I am quoting below from the Senate Appropriations Committee Report covering the second Supplemental Appropriations Bill, HR 11400:

"Sugar payments are mandatory to domestic producers who comply with the provisions of the Sugar Act of 1948, as amended, and payments are financed from a tax of 53.5 cents per 100 pounds on all beet and cane sugar processed or imported into the United States. To date, these tax collections, which go into the general fund of the Treasury, have exceeded producer payments under this act by \$594.9 million."

Many references have been made before your Committee and others concerning the \$170 million expended by the Federal Government as a part of the Central and Southern Florida Flood Control Project. It would be well to also know that local interests have provided large sums of money for the success of this Project, which is currently estimated to return \$5.20 for each dollar of Project cost expended. It also should be recognized that the State of Florida, from its General Fund, has contributed approximately \$58 million, and the landowners within the 18 county District have contributed approximately \$65 million to the cost of this Project. The entire operation and maintenance costs for the currently authorized Central and Southern Florida Project is borne by the property owners of the District, for this purpose and the acquisition of right-of-ways and relocation costs the District will levy a millage producing \$8.9 million for fiscal 1970 beginning July 1. In addition to this, many millions of dollars have been spent in secondary works by cities, counties, private landowners, and by special water management districts like the South Florida Conservancy District. This would indicate that this Central and Southern Florida Flood Control Project is an outstanding example for a cooperative Federal-State-Local program.

The United States Sugar Corporation is one of many members supporting the Water Users Association of Florida, Inc. in a maximum effort to insure adequate fresh water for all users, including the Everglades National Park.

Your acceptance of this testimony into the record of your Committee is sincerely appreciated.

Very truly yours,

RILEY S. MILES,
Executive Director and General Manager.

Senator NELSON. Our next witness is Mr. Louis Clapper, director of conservation, National Wildlife Federation.

STATEMENT OF LOUIS CLAPPER, DIRECTOR OF CONSERVATION, NATIONAL WILDLIFE FEDERATION

Mr. CLAPPER. I am Louis Clapper, director of conservation for the National Wildlife Federation, which has national headquarters at 1412 16th Street NW., here in Washington, D.C.

Ours is a private organization which seeks to attain conservation goals through educational means. The federation has affiliates in 49 States. These affiliates, in turn, are made up of local groups and individuals who, when combined with associate members and other supporters of the National Wildlife Federation, number an estimated 21½ million persons. We welcome the invitation to make these comments.

Mr. Chairman, the current Miami jetport controversy appears to illustrate, in a capsulized manner, many of the difficulties being encountered about conservation of natural resources and quality of the environment.

Here is a metropolitan area which feels the stresses and strains of an expanding human population and seeks to move ahead in the present to meet anticipated air traffic needs of the future.

This is a progressive step which several U.S. cities are taking at this time. It promises to offer better service to the air-traveling public and is a desirable development in this respect.

Yet, here also is a project which, while beneficial from one viewpoint, at the same time promises to blight a vastly greater area than its own 39 square miles through air pollution, water pollution, noise pollution, and the spread of potent poisons.

To a considerable extent, it appears that one public value well may be in the process of being developed at the expense of others—and without proper consideration being given to the latter.

As indicated earlier, we have been tremendously impressed by the special report developed for this committee, "A National Policy for the Environment," and printed on July 11, 1968, for the joint House-Senate colloquium last summer.

This jetport would appear to be an outstanding illustration of the observation in the report which stated: "What is now becoming evident is that there is no way in the long run of avoiding the costs of using the environment."

This project also would illustrate the need, expressed in the report, for a national policy for the environment to determine when payment for use of the environment is to be made, in what form, and how the costs are to be distributed.

Certainly, the jetport probably will result in degradation of the natural environment at the planned location. In all likelihood, the jetport will result in degradation of the Everglades National Park—possibly even result in destruction of it. If this unique facility is lost, however, it cannot be paid for in dollars and cents.

Projects of this sort are of the type which, in our opinion, point up the urgent need for the establishment of a national policy on the environment. This is one reason why we testified earlier before this committee in favor of S. 237, which would declare it the continuing policy and responsibility of the Federal Government to create and maintain the quality of the environment and the reference to "enhancement of the national heritage for future generations."

Mr. Chairman, we also believe that this Miami jetport project highlights the need for an executive branch agency or unit such as a "Council on Environmental Quality," or "Council of Advisers on Resources Conservation and the Environment," or "Council of Environmental Advisers."

This unit should outline a continuing program of research and investigations and inventories and coordination.

If staffed by competent and qualified personnel, it could make an in-depth study of the jetport proposal and recommend on participation by Federal Government before the project gets underway.

I might say here that we applaud action by the President to establish the Environmental Quality Council and a citizens' advisory committee. However, there appears to be a serious omission in that the Secretary of Defense, particularly the Corps of Engineers, is not represented and we would hope that the Council also can exert some marked influence on independent resource agencies such as the Tennessee Valley Authority.

In commenting specifically about the Miami jetport, we are pleased that the Departments of the Interior and Transportation have formed a joint committee to study the problem. However, we wonder whether the Corps of Engineers also is to be represented and if this is the inter-agency working group referred to in the statement presented by the Chief of Engineers. Needless to say, we hope the committee will complete the study with all dispatch and that it will not become a reason for delay.

We also hope and expect that the committee will give attention to the alternate sites discussed by the Assistant Secretary of Transportation. This is especially true of the site farthest removed from the park.

We urge that the interagency committee will give close consideration to recommending a requirement that all wastes be treated completely or recycled in the event the jetport is constructed. At the same time, we consider it imperative that the role of the Corps of Engineers on setting priorities of water needs is clarified. If a water user organization such as the Central and Southern Florida Flood Control District has this authority, then we believe that changes are absolutely necessary.

Finally, Mr. Chairman, we shall be watching and waiting with high interest how the Secretary of Transportation carries out his public responsibilities in section 4(f) of the Department of Transportation Act. We firmly believe that this section requires full consideration be given to all values, including those which make the Everglades National Park so unique.

We urge that Federal appropriations be withheld completely until the results of this study are made public.

Thank you for the opportunity of making these remarks.

Senator NELSON. I want to thank you very much, Mr. Clapper, for taking the time to come and testify.

Mr. CLAPPER. Thank you.

Senator NELSON. Our next witness is Mr. Gary Soucie, eastern representative of the Sierra Club.

STATEMENT OF GARY SOUCIE, EASTERN REPRESENTATIVE, SIERRA CLUB

Mr. SOUCIE. Mr. Chairman, my name is Gary Soucie, eastern representative of the Sierra Club. We are pleased to have this opportunity to appear today and are grateful to the committee for having scheduled these informational hearings.

I have brought along some photographs here of the jetport construction, some of the big cypress country between the jetport and the national park, and some scenes of the 1967 drought, if the Senator would like to have a look at them.

Senator NELSON. Yes, I would.

Mr. SOUCIE. I think it is reasonably safe to say that none of our national parks has ever faced a threat so massive as that facing Everglades: utter destruction. For, unless we can guarantee a sure and adequate supply of pure fresh water and unless we can preserve the clarity and solitude of the skies above the vast Everglades horizons, we will have lost what Congress meant to preserve for future generations of Americans when in 1934 it authorized the establishment of Everglades National Park.

Already we have lost much. Long delays in establishing the authorized park cost us valuable lands and made the established Park more vulnerable to the impact of outside developments.

The park's population of alligators and wood storks have dwindled alarmingly in the two decades since the park's establishment. Appropriations that fell far short of needs have allowed incompatible development on private lands within the authorized park boundaries.

But most of these losses are still reversible and recoverable, if we act with determination and dispatch. And the Everglades National Park we have today is a magnificent one, despite its problems. But we have ignored these problems long enough. There is no evidence they will go away while our heads are in the sand.

WATER SUPPLY

Everglades National Park's problems are mainly associated with its water and its water problems began before the park was established back in the 1880's when Hamilton Disston began the draining of the Everglades. However, with the establishment of Everglades National Park the Congress of the United States and the State of Florida declared that the unique ecology of the southern Everglades, mangrove swamps, coastal marshes and estuaries, and Florida Bay shall be preserved for future generations of Americans.

While early drainage projects in south Florida had some effect on the Everglades ecology, the really serious water problems have occurred since the establishment of the huge central and southern Florida flood control project in 1948, the year after the park was finally established.

LEGISLATIVE HISTORY OF THE FLOOD CONTROL PROJECT

From the outset, it was obvious that any flood control and drainage project as ambitious as the central and southern Florida project would so alter the natural surface flow as to make the new national park—down at the end of the hydrological “pipeline”—almost entirely dependent on the project for its very survival. Consequently, on April 21, 1948, the Director of the National Park Service sent a memorandum to his solicitor asking that an amendment to the pending legislation assuring “a plan of operation mutually satisfactory to the Director of the National Park Service and the Chief of Engineers * * *.” (App. A.)

During the month that followed, however, assurances received from the Corps of Engineers, and a letter from the Director of the Bureau of the Budget indicating that the BOB expected cooperation between the corps and the Park Service led the Park Service to drop its guard. On May 20, the NPS Director sent a second memo to his solicitor asking that the request for an amendment be ignored.

Consequently, the legislation enacted contains no specific proviso respecting the park. It simply authorizes the plan "as recommended by the Chief of Engineers in House Document Numbered 643, 80th Congress * * *." We now see that the National Park Service's decision to rely on the good will of the Corps of Engineers to guarantee project operation beneficial to Everglades National Park was a mistake.

However, even in House Document 643 there are a number of assurances on the part of the corps that the project was planned in full recognition of the Everglades National Park, and that its operation "would not damage or interfere with this great national park" but would in fact "assist in restoring and maintaining natural conditions within the national park."

That Congress had purchased a pig-in-a-poke became altogether obvious in 1962 when levee 29 across the Tamiami Canal from the park's northern boundary was completed and the outlet structures closed, in the midst of the worst drought of record. In 1963, Everglades National Park received no water at all from the project, and in 1964, only 5,000 acre-feet, or 1.6 percent of the park's minimum annual requirement of 315,000 acre-feet.

If Everglades National Park is to survive, then it must be assured of an acceptable supply and schedule of water from the flood control project.

The park cannot survive without the influx of sufficient surface waters, now almost entirely controlled by the canals, levees, and structures of the project.

The necessity of this guaranty was recognized prior to authorization of the project. House Document 643 includes a letter of concurrence from the Assistant Secretary of the Interior to the Chief of Engineers which says, in part:

The National Park Service concurs in the general program outlined in your report and its objectives. * * * Basically, therefore, as concerns the National Park Service, the question is not one of too much water, but a *guaranty* that there shall not be too little (Pages vi, vii.)

As you know, the Corps of Engineers claims that it cannot guarantee a basic survival ration of water to the national park. Last week, General Cassidy reiterated this stand to this committee. But if we look back to House Document 643, which was the plan authorized by Congress, we find these words under section 87, recommendations:

(b) That the works for flood control and other purposes described in this report be *maintained and operated by the Federal Government* subject to the requirement that the State of Florida or other responsible local interests pay the annual cost of such maintenance and operation after the completion of the works; except that the Secretary of the Army may turn over certain essentially local features to responsible local interests for operation *in accordance with regulations prescribed by the Secretary of the Army* upon the recommendation of the Chief of Engineers . . . (Page 59.)

Clearly, then, the Department of the Army has the right and obligation to regulate the operation of the project to protect the public interest in Everglades National Park.

HIDDEN COSTS

The public investment in the central and southern Florida flood control project and in programs and projects dependent upon it are very high. To date, over \$170 million in Federal funds has been appropriated for construction of the project, which has a direct, and critical, effect on the public's investment in Everglades National Park. In addition, there are other federally-aided projects generated by, and dependent upon, the flood control project.

For example, there is the south Florida conservancy district watershed work plan, an irrigation project to keep sugarcane lands in production as long as possible, until subsidence of the drained peat and muck soils forces the transition to the grazing of beef cattle.

Of the 32,608 acres in the watershed, 21,170 acres are in sugarcane, 16,000 of them owned by the U.S. Sugar Corp.

Cost of the project is \$5,858,800, of which \$2,591,550 are Public Law 566 funds (Public Law 566, 83d Cong., 68 Stat. 666, Watershed Protection and Flood Prevention Act). But the Federal subsidy is not limited to Public Law 566 funding. Although it is impossible to calculate all the Federal costs from the project report issued in January of this year, it is obvious the Federal cost goes considerably beyond the \$2.6 million. For example, of the costs of land treatment measures, only \$29,000 are provided from Public Law 566 funds. But another \$40,000 in technical assistance will come from the USDA's Soil Conservation Service under its going programs. And of the \$2,117,000 land treatment costs to be borne by the landowners we read:

Landowners may cost-share land treatment practices installation through the Agricultural Conservation Program.

Nor does the Federal cost stop here, for last year, according to newspaper reports, the U.S. Sugar Corp. received \$1.2 million under a U.S. Department of Agriculture farm subsidy program.

I have not cited these figures to pick on U.S. Sugar Corp. or to complain about our farm subsidies, but only to show how through the various Federal projects and programs, the U.S. public is unwittingly subsidizing the destruction of Everglades National Park.

Senator NELSON. Are these the full costs of the waters used, and did the U.S. Sugar Corp. pay for this use?

Mr. SOUCIE. Is the question are these costs paid for the water used?

Senator NELSON. I mean is the cost of the water fully paid for by the users?

Mr. SOUCIE. I don't believe any of the users pay any of the direct costs of water. All they pay for are the pertinent works to get the water out of the project onto their lands. That is what this watershed work plan is about.

Senator NELSON. Their water is coming from where?

Mr. SOUCIE. From the conservation areas and from Lake Okeechobee.

Senator NELSON. Are you saying all they have to do is pay the cost of a canal?

Mr. SOUCIE. That is my understanding.

Senator NELSON. That is a canal into their area, and then the water is supplied from the conservation areas free?

Mr. SOUCIE. I believe that to be true.

Senator NELSON. I am curious about that. If the water is being supplied to such users as U.S. Sugar Corp., it seems to me they should be paying their share of the cost for structures and the cost of delivering the water to them.

Mr. SOUCIE. I believe the theory is that they are paying their share through taxes to the counties. There are 18 counties who levy taxes for this particular project. I am not really certain of the exact schedule of cost-sharing. I would assume those figures to be available to the committee from either the flood control district or the Corps of Engineers.

Senator NELSON. All right.

EVERGLADES JETPORT

Mr. SOUCIE. While not exclusively a water problem, the threat posed by the development of a gigantic jetport just north of Everglades National Park certainly has its water-quality dimension. The jetport, and its associated developments in the Big Cypress Swamp, are sure to degrade and pollute the surface waters flowing across the Big Cypress and into the western portions of Everglades National Park. It is estimated that the national park gets over one-third of its surface water supply through the Tamiami Trail west of 40-Mile-Bend. And about 84 percent of that passes through the area most immediately affected by the jetport. Incidentally, this water, shortly after entering Everglades National Park, mixes with salt water in the "vital zone" of the Everglades estuaries.

According to a statement issued May 28, 1969, by the Bureau of Commercial Fisheries, the estuaries of Everglades National Park "serve as nursery areas for most of the shrimp stocks supporting the Tortugas-Sanibel and live-bait fisheries of south Florida."

The Tortugas-Sanibel pink shrimp fishery alone contributes several million dollars annually to the region's economy. Other species of shellfish and finfish dependent on the Everglades estuaries contribute another \$3 million in commercial fisheries operations.

The Dade County Port Authority and its engineering consultants have taken a rather cavalier attitude toward the problem of maintaining water quality. While we have great confidence in the technical competence of its engineers, we find nothing in our water pollution prevention experience elsewhere in the Nation to give us much confidence that the jetport's water quality problems are so certain of solution.

At present, the Bureau of Water Pollution Control of New York City's Department of Water Resources is conducting a water pollution study in Jamaica Bay, the estuary adjacent to John F. Kennedy International Airport. While results of the study have not been released, we have been informed by the project manager, Dr. David W. Eckhoff, that, "The data collected have implicated the airport and its peripheral activities as major pollution sources * * *."

AIR POLLUTION

As the Senator observed last week, air pollution alone will cause the airport to have a seriously adverse impact on the national park. While figures on pollution emissions from jet aircraft engines are rather unreliable, it is possible to calculate some "inside-outside" figures to give a rough idea of the magnitude of the air pollution problems that will attend development of this airport.

The following figures have been calculated from data taken from a report by the Secretary of Health, Education, and Welfare and a paper published by the Society of Automotive Engineers (app. B) :

POLLUTANT EMISSIONS IN TONS PER YEAR

Operational phase	Carbon monoxide	Oxides of nitrogen	Hydrocarbons	Aldehydes	Particulates
Training (250,000 flights):					
Low.....	2,500	1,150	3,625 }	275 {	350
High.....	22,000	1,650	11,200 }		925
Commercial (900,000 flights):					
Low.....	9,000	4,150	13,000 }	1,000 {	1,260
High.....	72,000	6,000	40,250 }		3,250

It is apparent that we are talking about many tons of pollutants annually.

It must be noted that emission of particulates (carbon) in the form of visible smoke may be reduced in future generations of aircraft like the Boeing 747 by improving the burning. However, it was impossible to calculate from data supplied by Pratt & Whitney Aircraft Division of United Aircraft Corp. just how much reduction there would be. Reductions in other pollutant emissions seem unlikely, particularly for oxides of nitrogen. In a letter dated May 21, 1969, Mr. Gerald R. Daley, assistant public relations manager for Pratt & Whitney Aircraft wrote:

Reduction of the other pollutants, however, will require technology advances beyond the present state of the art. * * * We believe that smoke reduction is one of the most significant contributions we as an engine manufacturer can make to overall environmental improvement.

The aviation industry is fond of pointing to HEW studies of air pollution in the Los Angeles and New York metropolitan areas indicating that aircraft emissions contribute such a small fraction of the regions' total air pollutants as to be insignificant. But the air over the park is clear and pure. Everglades National Park does not have millions of automobiles poisoning the atmosphere and apartment incinerators and utility and factory smokestacks belching forth black plumes. The training and transition airport will be used from the start to train flight crews to fly the new Boeing 747 jumbo jet, so it may be helpful to know what to expect from that airplane's engines. As I have already mentioned, there will probably be a reduction in the tonnage of particulate matter dumped into the atmosphere. According to the SAE paper already cited,

Pollution emissions that would result from operation of aircraft heavier than those currently in use such as the Boeing 747 may, however, cause a significant impact on air pollution, particularly in the vicinity of airports.

And the HEW report, while hopeful that reduction of carbon monoxide and organic emissions may be achieved through changes in engine designs, concedes that "emissions of oxides of nitrogen by the new aircraft are expected to increase."

We don't really know what happens when these air pollutants eventually settle in water—which is significant since both approach and climb out from the runways are over the national park's major surface water sources—but it is hoped the Jamaica Bay study—which is tentatively scheduled for August release—will give us some indication.

NOISE POLLUTION

Noise is a major environmental pollutant associated with airports. In fact, it is without question the major one associated with the current generation of airports. And noise is incompatible with the wilderness solitude of a national park. But just how bad is airport noise, and what are its effects on Everglades National Park likely to be?

I think we must begin by quoting from a report dated February 7, 1967, from the Director to the Commissioners of the Dade County Port Authority on the need for a "Transition Training and Supplemental Airort."

The quoted material is No. 9 in a list of 11 reasons for the selection of the present site. It is the only reference to Everglades National Park in the report.

9. The Everglades National Park south of the site at Tamiami Trail assures that no private complaining development will be adjacent on that side.

I cite this item for two reasons: First, because, being the only reference to the National Park in the report, it shows that the Port Authority, despite its protestations to the contrary, did not really take into consideration the Park's proximity in its site selection process. Second, and perhaps more important, it implies that if private development were to occur within the area now occupied by Everglades National Park that the noise and other environmental problems caused by the airport would likely cause the development to be a complaining one. Hence, the national park was simply viewed as empty space with no one to complain about the noise except the alligators.

But how loud is loud? According to an article in *Aerospace Technology* the current subsonic commercial jets at takeoff generate noise levels 3 miles away in the range of 120 decibels of perceived noise (PNdB). That is the threshold of pain.

I don't have figures on the noise level 6 miles away—which is the distance of the national park's boundary—but you can bet it will be considerably higher than a typical national park "noise"—the rustling of leaves, which is rated at 10 decibels. The decibel scale is logarithmic, so that represents quite a difference in magnitude.

The Federal Aviation Administration has, rather lately, issued standards and guidelines for acceptable noise levels of the next generation of jets, but these levels are still pretty high. Nor is there any certainty the engine manufacturers will be able to meet them. In a news item that appeared last month in the *New York Times* concerning FAA approval of the JT9D-3 engine for the Boeing 747, some difficulty was indicated:

Boeing officials have said work is underway to quiet the 747 engine with sound-absorbing materials, but they conceded they need additional progress in order to comply with the FAA proposals.

As for the supersonic transports, the picture is grim, indeed. When the Anglo-French Concorde made its maiden flight this past winter, the NBC television news account said, "On takeoff, the roar of its four engines could be heard in villages 20 miles away."

It has been reported in *Aerospace Technology* (May 20, 1968) that:

It is expected that the Concorde will exhibit sideline noise levels of about 118 PNdB, according to U.S. engineers, and may show a rather startling 124 PNdB figure during approach * * *.

And how will the Boeing SST compare? Boeing studies indicate a sideline noise level of 122 PNdB. And, while the FAA assures us the SST will be less noisy, the same article in *Aerospace Technology* says that even if "the initial noise objective can be met, the SST probably still will be noisier by about 5-6 PNdB than subsonic aircraft."

The very frequency of flights anticipated at the jetport will be problematical, for noise nuisance increases with frequency as well as with level. Writing in the *UNESCO Courier* (July 1967), one of America's leading specialists on problems of acoustics, Leo L. Beranek, reported:

It appears from judgment tests that doubling the duration of noise associated with each flyover or doubling the number of flyovers each day is equivalent to a three to four PNdB increase in the level of a single flyover.

It is often difficult to relate these numbers of decibels to our everyday experience, but I think we can get some idea of the problem facing Everglades National Park from this illustration. In an article on aircraft noise, the *New York Times*—October 22, 1967—quoted Stan-nard M. Potter, test engineer for Pratt & Whitney Aircraft:

A conversation in an urban home with draperies and carpets between people 12 feet apart would be interrupted by any noise over 33 noise decibels.

Normal conversational levels are in the neighborhood of 50 to 70 decibels. Except for an occasional bird cry, which is one of the things people come to the Everglades for, the ambient noise level of Everglades National Park is probably in the neighborhood of 5 to 10 decibels.

Add to the airport a six- or eight-lane interstate route—70 to 90 PNdB—and an air-cushion train propelled by turbines—around 100 PNdB—and we have certainly lost the wilderness quietude of the top part of Everglades National Park. Add the associated air and water pollution, and we are on the way to losing the rest of it.

The airport must be relocated. We need not even conjecture about the peripheral development in the Big Cypress or the unlikelihood of obtaining sound planning there. Section 4(f) of the Transportation Act requires that the airport be moved if there is a feasible alternative. At least two were identified by Florida witnesses in last week's hearing.

The airport can and must be moved. Despite its charge under section 4(f), the Department of Transportation is playing coy with the public interest, claiming to have no authority or responsibility to do anything more than "blandly call balls and strikes," to use the words of the Federal district court in the 1965 *Storm King* decision. Meanwhile, at least three separate, but virtually inseparable, transporta-

tion projects are moving right along. The airport is under construction, the Bureau of Public Roads has already solicited public comments on the routing of I-75, and a contract has already been let to study high speed ground transportation to the present site. The time for action is upon us. If we wait for too many more studies they will turn out to have been autopsies.

RECOMMENDATIONS

The list of recommendations made to this committee last week by Nat Reed is a fine one. I would tinker with it just a bit.

1. *Move the jetport.*—Action must be taken now to move the jetport before Interstate 75's location is set and Dade County proceeds any further with its multitude of plans contingent upon the jetport's construction. Also, with the jetport now under construction at the present site, development pressures are building in the Big Cypress Swamp and in the high pinelands in Monroe County.

To avoid replaying this problem elsewhere, I believe this committee will have to spell out more clearly to the Department of Transportation what its responsibilities under Section 4(f) of the Transportation Act are.

2. *Water agreement.*—Before another drought hits Florida an agreement satisfactory of the basic water needs of Everglades National Park will have to be reached by the Departments of Interior and Army, and the State of Florida. The proper proviso in the Public Works Appropriations bill might prompt the Corps and the State to move rather more quickly than they have in the past.

The impasses seems now to be as much over semantics as substance. But what the State and the Corps have proposed is nothing more than a gentleman's agreement, and we have seen just how far the 1948 gentleman's agreement went toward protecting the park. We cannot tolerate an agreement that depends on future Governors of Florida appointing men like Nat Reed and Bob Padrick. Men of such character and caliber are too rare. I believe that men of good will can reach an agreement that satisfies the park's unchanging needs and yet is equitable to the dynamic situation in Florida. But it cannot be predicated on unlimited growth, or we will have signed the Everglades' death warrant.

Once the basic question of the park's water rights has been resolved, then we must proceed apace with constructing those parts of the Flood Control Project that will enable the Corps and the FCD to deliver their promised goods. To proceed with these items in reverse is only to dodge the issue once more.

3. *Acquire inholdings.*—Money must be appropriated to acquire the 70,000 acres of private inholdings within Everglades National Park. Gentlemen, Everglades has more acres of inholdings than our new Redwoods National Park has acres, period.

The 50,000 acres along the "Northwest Extension" are problematical, for they cut the park in two and are presently under heavy development pressure. And the prices keep going up, so the longer we wait, the more it will cost the American public.

4. *Acquire the Monroe lands.*—The Monroe County lands between the Loop Road (State Route 94) and the National Park should be acquired, either by the Federal Government or by the State, to protect the Park's water supply, and for recreation, including hunting. Many of these acres are high (by Florida standards) pinelands all too easy to develop.

Plans are already underway to establish a number of local drainage districts in this area. It is within the authorized boundaries of the Flood Control Project, although the land has never been acquired by the State. At present, it serves as a staging area for alligator poachers.

5. *Preserve the Loop Road area.*—The Big Cypress country within the Loop Road area, particularly along the strands that supply water to Everglades National Park, is magnificent subtropical wilderness that should be preserved in its own right.

6. *Control development in Big Cypress Swamp.*—Development in the Big Cypress Swamp north of Tamiami Trail should be controlled, perhaps by joint action of Collier County and the State of Florida.

The Federal Government's role in this majority part of the Big Cypress might be the preservation of Fakahatchee Strand. If development of the Big Cypress is rampant and uncontrolled, we might still face a replay of some of these same problems at sometime in the future.

If it were possible for the county, State, and Federal Governments, working jointly and in coordination, to accomplish these half dozen steps, we would, perhaps, have paradise on earth. If we accomplish none of them, we will surely lose Everglades National Park and will have, through our inability to get our horses pulling together as a team, gone at least one hitless inning toward losing the whole environmental ball game.

Perhaps if, back in 1948, we had a President's Environmental Quality Council and an independent Council of Environmental Advisors we would have been able to accomplish our park preservation, flood control, land reclamation, and transportation purposes in harmony rather than discord.

It may not be too late to unravel and make this thing right. The 91st Congress and the President's Council on Environmental Quality should make solving the Everglades problem a first order of business. We had better find out fast if there is any light at the end of the tunnel.

Thank you, Mr. Chairman, for holding these hearings and for giving us a chance to present our views.

(The documents referred to follow:)

APPENDIX A.—LEGISLATIVE HISTORY OF THE CENTRAL AND SOUTHERN FLORIDA FLOOD CONTROL PROJECT AS IT AFFECTS EVERGLADES NATIONAL PARK

April 21, 1948: Memorandum from Director to Solicitor, National Park Service, suggesting the following amendment to H.R. 5490: Provided, however, that no work which affects or may affect the Everglades National Park shall be undertaken on said project unless a plan of operation mutually satisfactory to the Director of the National Park Service and the Chief of Engineers has been agreed upon.

May 4, 1948: Letter from the Director, Bureau of the Budget, to the Secretary of the Army, stating that the BOB expected cooperation between the Corps and the Park Service.

May 6, 1948: House Document 643, Eightieth Congress, Second Session.

From the report of the Chief of Engineers: The plan of improvement has also been developed in full recognition of the importance of the Everglades National Park which has been established recently at the southwestern tip of the Florida peninsula. Release of water from conservation storage will assist in restoring and maintaining natural conditions within the national park area, by reducing damage from drought and fire which have threatened the preservation of lands, vegetation, and wildlife. (p. 4.)

From the Comprehensive Plan: The comprehensive plan proposed in this report has been 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 the 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 for agriculture. During large floods such as those 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 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. (p. 57.)

May 14, 1948: At hearings before the Senate Committee on Public Works, Lt. Col. H. C. Gee of the Corps of Engineers stated: An important feature of this plan involves the Everglades National Park, which is a wildlife refuge and wilderness park area in the extreme southern and southwestern portion of Florida. Most of the wildlife and subtropical vegetation which abounds here is dependent upon an abundant supply of water for continuation in its natural state. The existence of spillways through the Tamiami Trail will permit the release of sufficient water from conservation areas to insure an improved water supply in the Everglades National Park during dry periods. There is where the primary interest of the Park Service lies; and coordination with the Park Service during the development of this plan will insure that the plan operates for the benefit of this park area. (p. 249)

May 20, 1948: Excerpt from second memorandum from Director to Solicitor, National Park Service, requesting that earlier memo be disregarded: Since sending you our memorandum of April 21 we have had informal discussions with representatives of the Department of the Army and believe that any plan of flood control will be taken up with us insofar as it may affect the Everglades National Park.

In addition to the administrative assurances we have received informally that any flood control plan will take due cognizance of the Park, we have noted a copy of a letter dated May 4 sent to the Secretary of the Army by the Director of the Bureau of the Budget. * * * It is self-evident from this letter that the Bureau of the Budget expects full cooperation by all interested agencies in planning the water resources development program in the southern Florida area if H.R. 5490, or any similar bill, is enacted.

May 21, 1948: Excerpt from letter from Chief of Engineers to Secretary of the Interior: I consider it essential there be close cooperation and negotiations between the Corps of Engineers and the National Park in devising plans and operating procedures which would affect the Everglades National Park. * * * I believe, therefore, that you may be assured that the desirable coordination will be accomplished.

June 30, 1948: Public Law 858 (62 Stat. 1171) was enacted containing the following authorization for the Central and Southern Florida Project: The project for the Caloosahatchee River and Lake Okeechobee drainage areas, Florida, authorized by the River and Harbor Act of July 3, 1930, as amended, is hereby modified and expanded to include the first phase of the comprehensive plan for flood control and other purposes in central and southern Florida as recommended by the Chief of Engineers in House Document Numbered 643, Eightieth Congress, subject to the conditions of local cooperation prescribed therein, and there is hereby authorized to be appropriated the sum of \$16,300,000 for partial accomplishment of said plan.

APPENDIX B.—ESTIMATED POLLUTION EMISSIONS FROM JET ENGINE AIRCRAFT

From: Hochheiser, Seymour, and Lozano, Elroy R., *Air Pollution Emissions From Jet Aircraft Operating in New York Metropolitan Area*, New York: Society of Automotive Engineers, 1968.

EXCERPT FROM TABLE 2.—ESTIMATED POLLUTION EMISSIONS PER FLIGHT FROM JET-ENGINE AIRCRAFT

[In pounds]

Engine type and number	Carbon monoxide	Oxides of nitrogen	Hydrocarbons	Aldehydes	Particulates
Turbojet-4.....	20.6	9.2	29.0	2.2	7.4
Turbojet-3.....	22.4	13.7	13.7	1.7	5.6
Turbojet-2.....	14.9	9.2	9.2	1.1	3.7

Note: "Flight" is defined as a combination of a departure and arrival. High readings for carbon monoxide and oxides of nitrogen from 3-engine jets is caused by operating differences between the engine types used to power trijets and those used to power 4- and 2-engine jets.

EXCERPT FROM TABLE 5.—ESTIMATED POLLUTION EMISSIONS FROM JET-ENGINE AIRCRAFT OPERATIONS IN NEW YORK METROPOLITAN AREA, 1967

[Pollutant emissions in tons per year]

Airport	Engine type and number	Carbon monoxide	Nitrogen oxides	Hydrocarbons	Aldehydes	Particulates
Kennedy.....	Turbojet-4.....	1,139	509	1,604	122	409

Note: In January–October 1967, Kennedy Airport had 92,161 departures of 4-engine jet aircraft.

From: *Nature and Control of Aircraft Engine Exhaust Emissions*. Report of the Secretary of Health, Education, and Welfare, December 1968. Senate Document No. 91–9, 91st Congress, 1st Session, March 4, 1969.

APPENDIX B

TABLE 5.—AIRCRAFT EMISSIONS DURING AN LTO CYCLE (EXCERPT BELOW ONLY FOR EMISSIONS FROM 4-ENGINE LONG-RANGE JET TRANSPORTS)

[Emissions (pounds per aircraft per LTO-cycle)]

Operations	CO	Organics	NO _x	Particulates
Ground.....	164.3	70.7	5.24	0.80
Flight.....	11.2	19.0	8.00	2.00
Total.....	175.5	89.7	13.24	2.80

Note: LTO-cycle is a landing-and-takeoff cycle. Ground operations include idle, taxi, takeoff, and landing modes. Flight operations include approach and climbout modes below 3,000 feet.

Senator NELSON. In your view, are there other available sites that are as good or better than the current proposed jetport site?

Mr. SOUCIE. I don't believe the Sierra Club is in a position to speak on these strictly aviation questions, but I believe that enough people have identified other sites, particularly the two that were mentioned last week, which I hear mentioned over and over again; that there are in fact alternate sites.

Senator NELSON. Didn't the FAA conduct some investigations with an HUD grant?

Mr. SOUCIE. My understanding, and it is very vague but I was told this by James Howes, Director of the FAA branch in Miami, that a regional airport study had been conducted by FAA under an HUD grant, something like \$1 million. As I understand it, one of the conditions of this HUD grant was that any recommendations have both political and economic support from the region. So far as I can remember, these are the exact words used by Mr. Howes on May 19.

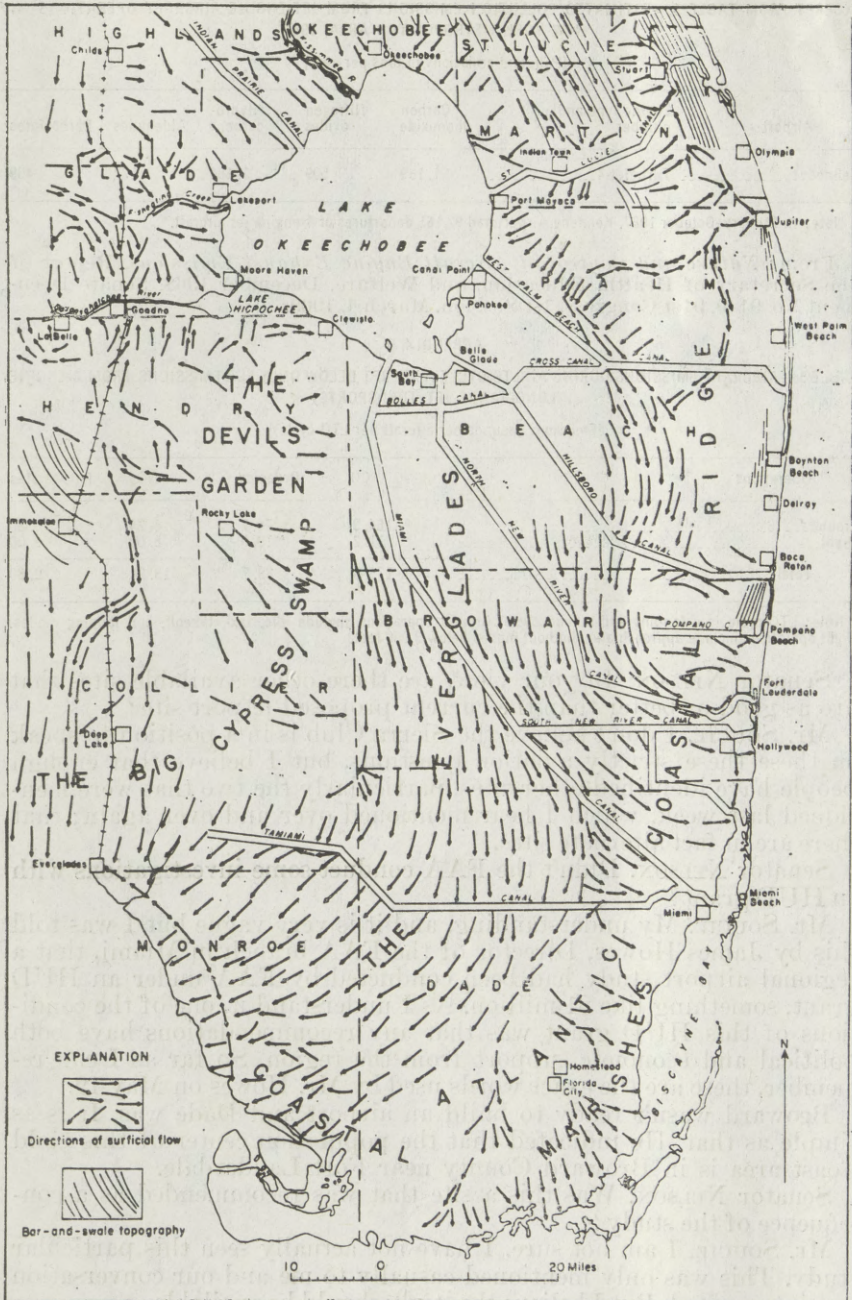
Broward wasn't ready to build an airport and Dade was. It is as simple as that. He indicated that the population center of this Gold Coast area is in Broward County near Fort Lauderdale.

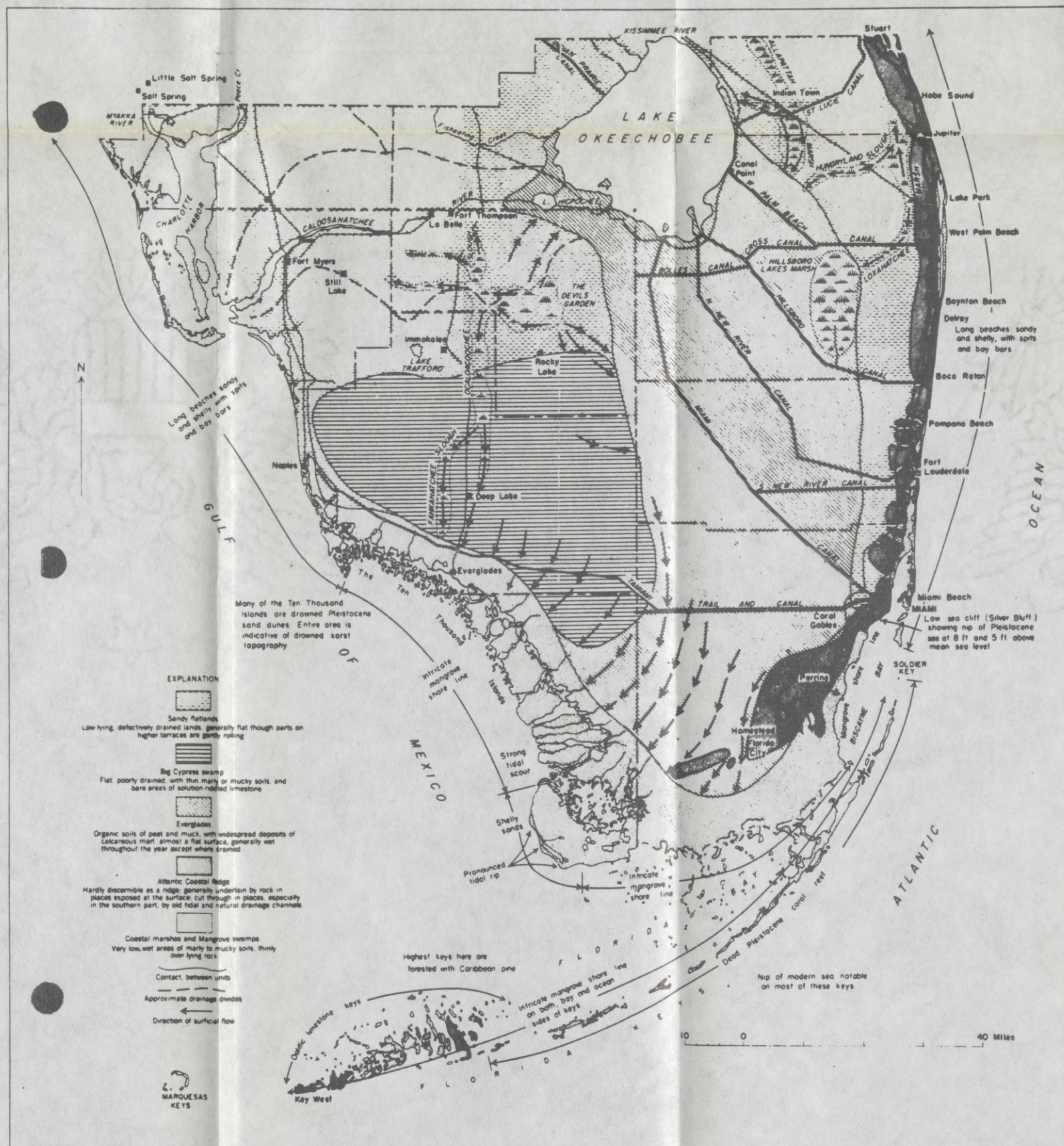
Senator NELSON. Was this a site that was recommended as a consequence of the study?

Mr. SOUCIE. I am not sure. I have not actually seen this particular study. This was only mentioned casually to me and our conversation was interrupted. But I believe the study should be available.

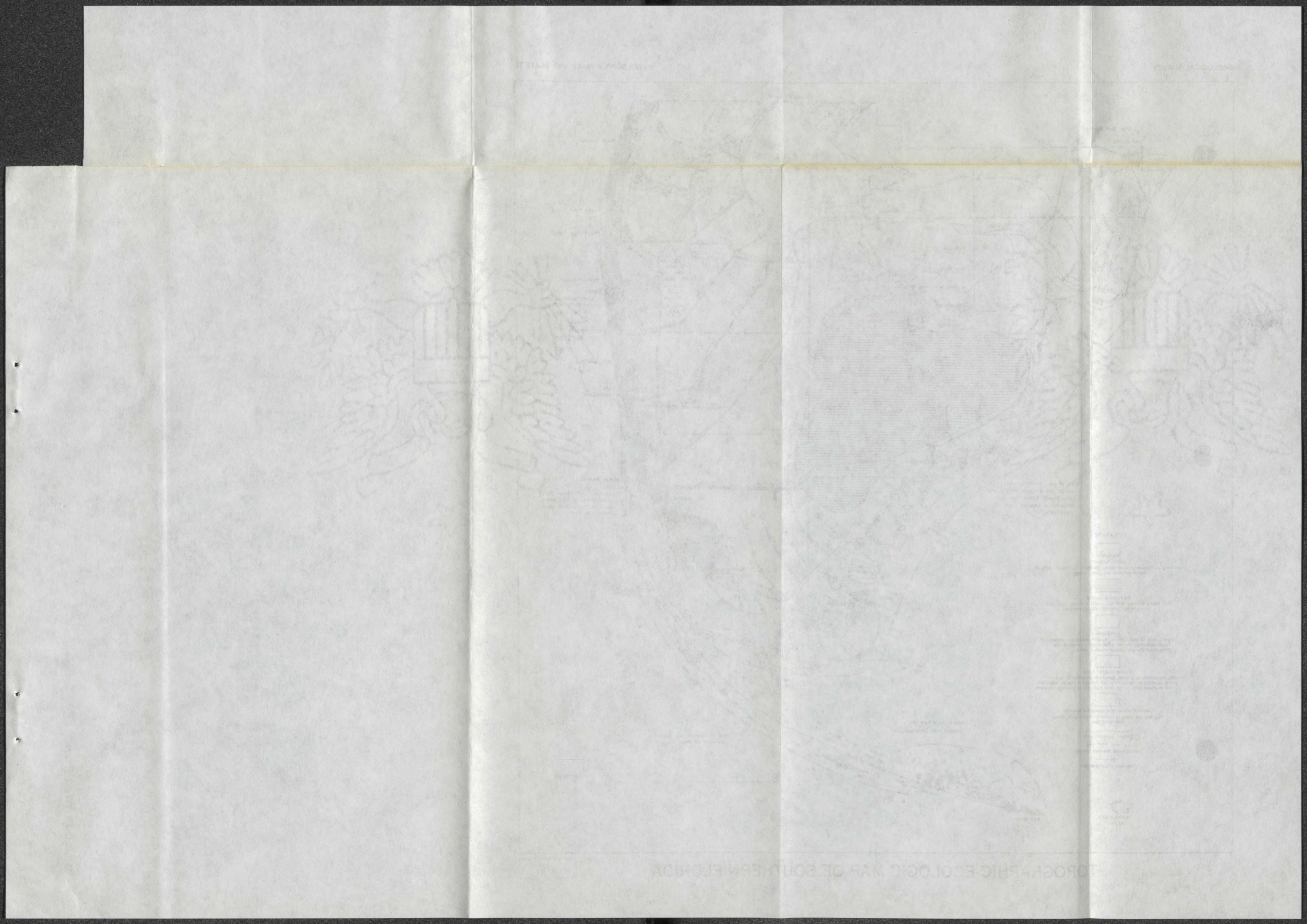
Senator NELSON. We will request a copy of the study made by the FAA with the HUD grant.

I thank you very much for taking the time to come before the committee and testify.

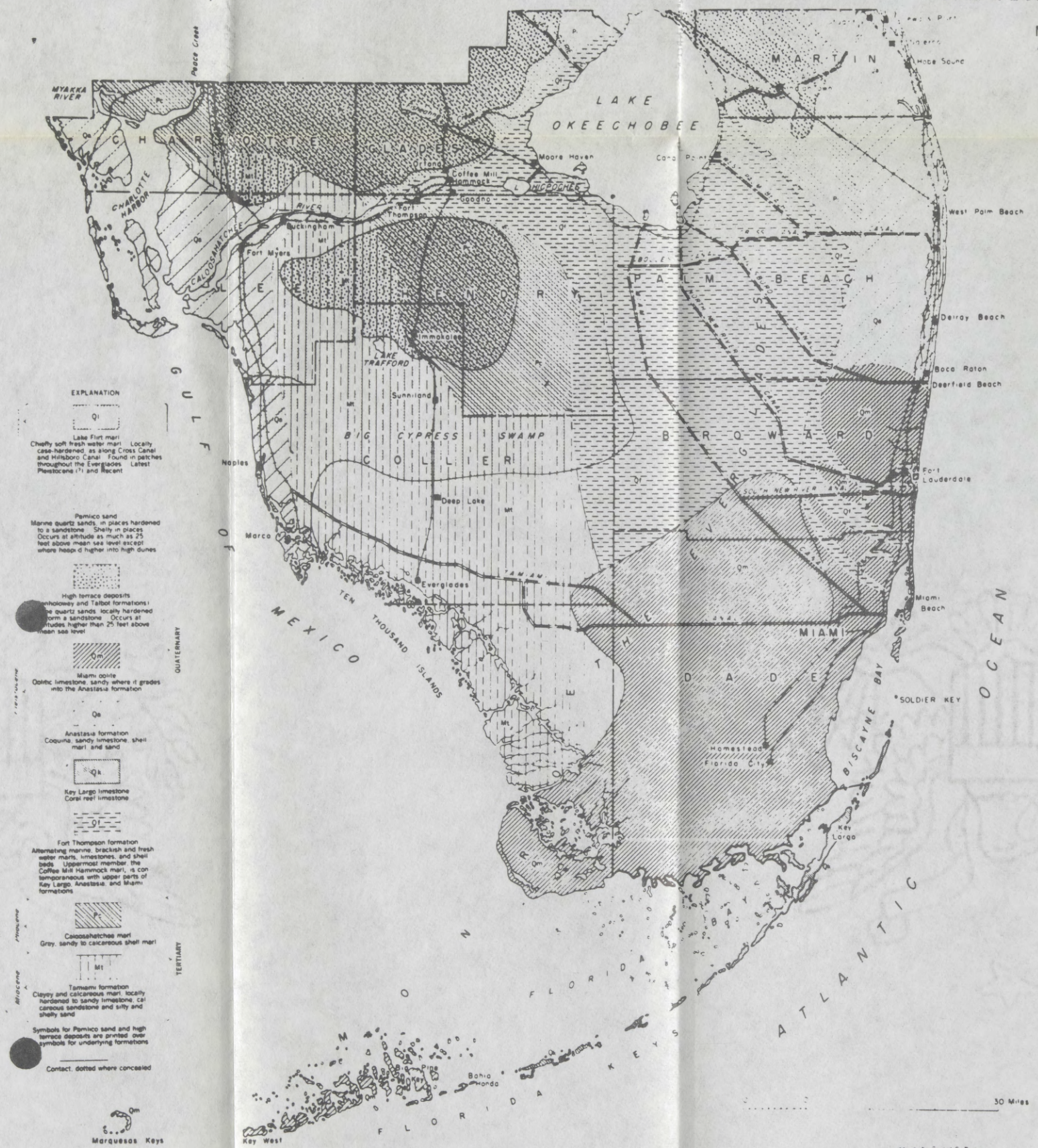




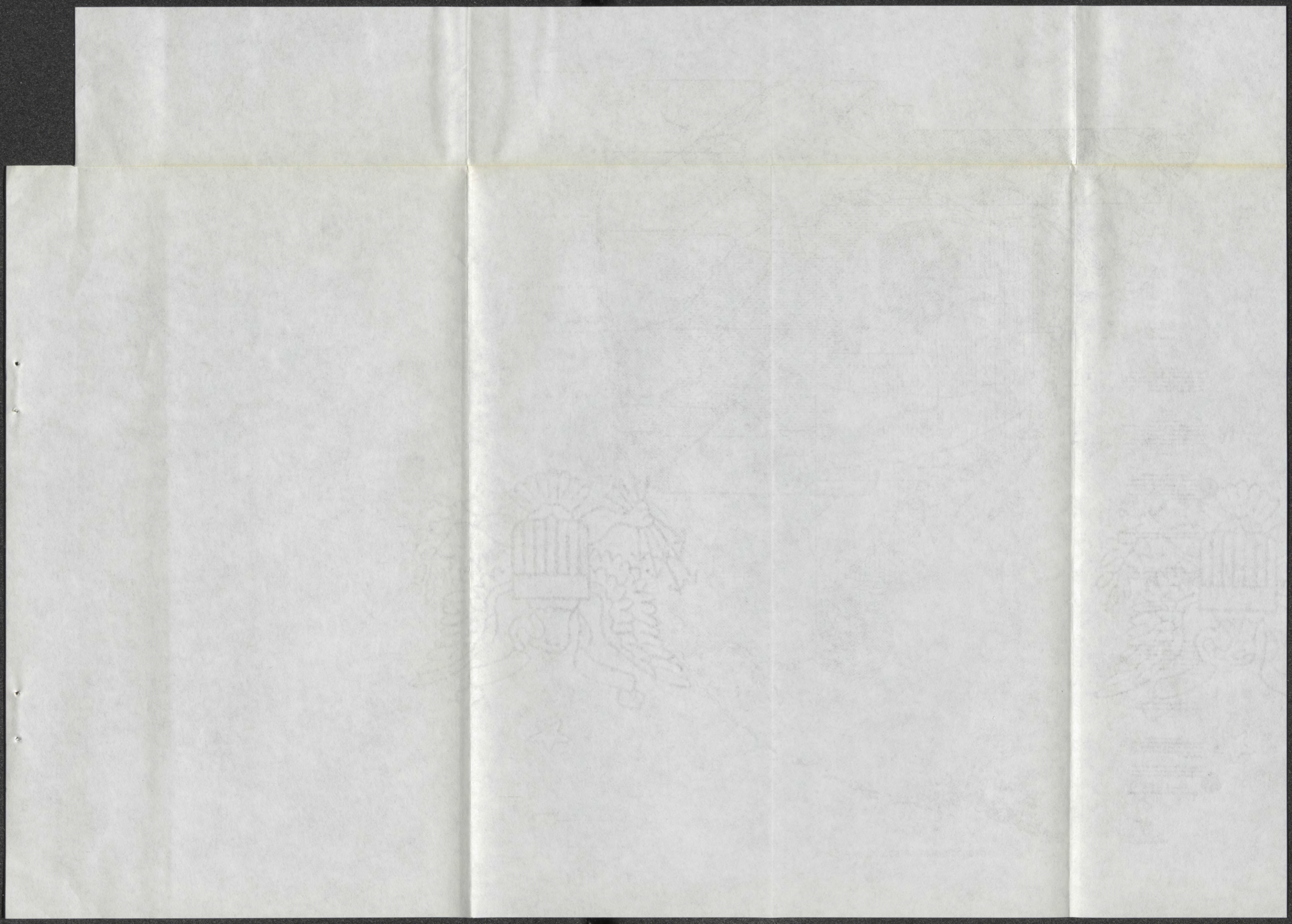
TOPOGRAPHIC-ECOLOGIC MAP OF SOUTHERN FLORIDA

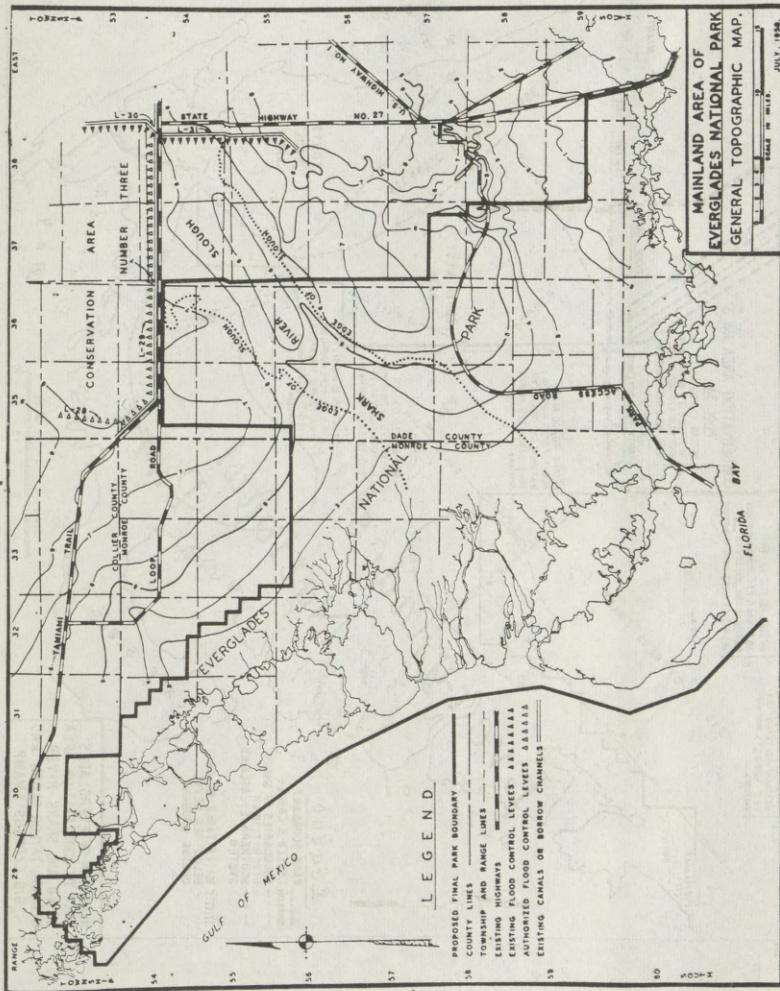


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GEOLOGIC MAP OF SOUTHERN FLORIDA





Mr. SOUCIE. Thank you, sir.
(Subsequent to the hearing the following explanatory letter was received:)

SIERRA CLUB,
New York, June 16, 1969.

Senator HENRY M. JACKSON,
Chairman, Committee on Interior and Insular Affairs,
U.S. Senate,
Washington, D.C.

DEAR MR. CHAIRMAN: Upon reflection, I feel that one of my answers to Senator Nelson's questioning during last Wednesday's hearing was not entirely responsive to the question. Consequently, I would appreciate it if this letter, amending my answer, might appear in the hearing record.

I refer to the question by Senator Nelson whether the Federal Aviation Administration, to my knowledge, had ever conceded the existence of alternative sites for the jetport. Although I mentioned one, there are actually two instances of such concession.

On May 14, at a meeting between representatives of conservation organizations, the Department of the Interior, and the Department of Transportation, presided over by Assistant Secretary of Transportation James D. Braman, an F.A.A. official identified two sites. When asked by Secretary Braman if there were feasible alternate sites, Mr. Robert F. Bacon, Chief, System Planning Division, Airports Service, first said there were none, and then identified two: Homestead Air Force Base and a former World War II bombing range in Conservation Area 2 B.

The following Monday, May 19, following the inter-agency jetport committee meeting at F. C. D. headquarters in West Palm Beach, Fla., I had a very brief conversation with Mr. James K. Howes, Chief, Airports Branch, Miami Area Office, F. A. A. Mr. Howes said that a regional airport study had been made under a H. U. D. grant, and seemed to imply that, because the population center was in Broward County near Fort Lauderdale, the logical site for the airport would be in Broward County. However, Mr. Howes said that the H. U. D. grant required there be "economic and political support" and that, "Broward wasn't ready to build an airport and Dade was; it's as simple as that." At that point our conversation was interrupted.

I want to re-emphasize our appreciation to you for holding these important hearings.

Sincerely,

GARY A. SOUCIE,
Eastern Representative.

Senator NELSON. Our next witness will be Mr. Ben Thompson, Federal liaison officer, National Recreation & Park Association.

We are pleased to have you before the committee, Mr. Thompson. You may proceed as you wish.

STATEMENT OF BEN THOMPSON, FEDERAL LIAISON OFFICER, NATIONAL RECREATION & PARK ASSOCIATION

Mr. THOMPSON. Thank you, Mr. Chairman.

Mr. Chairman and members of the committee, I am Ben H. Thompson, a member of the staff of the National Recreation & Park Association.

The association is a private, nonprofit educational and service organization dedicated to the wise use of free time, conservation of natural resources, and beautification of the American environment.

At your hearing on June 3, this committee received excellent information, I thought, from the Departments of Interior, Transportation, and the Army and from the Florida State Government, the central and southern Florida flood control district and from the Dade County Port Authority.

This information covered the natural history and water requirements of the Everglades National Park, the history of the Central and southern Florida flood control project and of the Everglades jetport.

Additionally, it appears that very basic studies are being undertaken cooperatively by the Departments of the Interior and of Transportation to provide information on which decisions can be made regarding the jetport.

It appears, also, that the State of Florida has taken steps to encourage the formation of a three-county planning program in the Everglades region and hopes to broaden the planning venture to a nine-county effort. These are all encouraging steps.

The representative of the Dade County Port Authority stated that the authority's responsibility for the impact of the jetport on the surrounding area does not extend beyond the boundaries of the land acquired by the authority for jetport purposes.

Yet, there seemed to be agreement by all concerned that development of the jetport as a commercial airport, with rapid transportation corridor connecting it with the cities of the east and west coasts of southern Florida will inevitably result in the development and growth of industrial, commercial, and residential ventures—in fact, a new city—surrounding the jetport which will inescapably pollute and use the water of the Big Cypress Swamp which now slowly flows into the northwestern portion of Everglades National Park.

The Big Cypress Swamp is itself a picturesque and immensely interesting segment of the Everglades of southern Florida, of which a relatively small portion has thus far been included within the Everglades National Park. Indeed, many thousands of acres of the Big Cypress were for years considered an essential part of the proposed Everglades National Park, the north boundary of which extended well above the Tamiami Trail, if I remember correctly.

Unfortunately, when the Everglades National Park was authorized by the Congress in 1934, establishment of the park was made contingent upon the donation of the lands for park purposes. That resulted in many years of delay.

Following World War II when the National Park Service sought clarifying authority for certain procedural problems, involving land acquisition with donated funds as I remember, local interest in the possibilities of commercial development of lands within the authorized park boundaries made it necessary to redefine the boundaries and exclude highly important east and north sides of the park, including many thousands of acres of the Big Cypress Swamp area formerly within the park's exterior boundaries.

As a consequence, the boundaries of the park have a very poor relationship to the all-important water sources which must be protected or the park will die.

In these circumstances, it seems to me that the following statement made by Mr. Nathaniel Pryor Reed to this committee during the June 3 hearing is especially significant.

The State and Federal Government must promptly recognize that the Big Cypress represents a valuable wilderness. It is the headwaters to the northwest extension of the park and a vital area for providing water supplies for the fast-growing southwest coast of Florida. It must be preserved by prompt acquisition.

I believe that Mr. Reed's statement, just quoted, was perhaps the most basic and important recommendation made to this committee at the June 3 hearing.

I believe that a suitable program should be formulated for the acquisition and protection of the Big Cypress Swamp as a natural area, whether or not the jetport remains as a training facility only, becomes a commercial airport or is moved elsewhere.

The acquisition of the Big Cypress Swamp area surrounding the jetport property is the only really effective way, in my opinion, of stopping a chain of events that will ultimately lead to the destruction of the natural character of the northwestern portion of the Everglades National Park.

If the Big Cypress Swamp or a major portion of it were acquired and protected as a State recreation area or if it were acquired and protected as a national recreation area, or if it were acquired and included or partially included in the Everglades National Park, the main purposes of its acquisition would be accomplished, namely, the preservation of its water supply and of its unique natural character together with Everglades National Park, for public use and enjoyment.

I submit that, in the long run, the preservation of the Big Cypress Swamp and of Everglades National Park as inseparable units of the Everglades region will be of more importance in the lives of the people of the State as well as the people of the United States than would be the commercialization and industrialization of this unique natural area for immediate financial gain that can probably be developed elsewhere.

Senator NELSON. Mr. Thompson, I wish to thank you for appearing before the committee today and presenting your views. Thank you very much.

Mr. THOMPSON. Thank you, Mr. Chairman.

Senator NELSON. The next witness will be Mr. Ted Pankowski, conservation associate, the Izaak Walton League.

Welcome to the committee, Mr. Pankowski. You may proceed to present your statement as you wish.

STATEMENT OF TED PANKOWSKI, CONSERVATION ASSOCIATE, IZAAK WALTON LEAGUE

Mr. PANKOWSKI. Thank you, Mr. Chairman.

Mr. Chairman, members of the committee, I am Ted Pankowski, conservation associate for the Izaak Walton League of America. I appreciate this opportunity to comment.

At the outset, I should say unequivocally that the league shares many of the deep concerns that have already been expressed over the decision to locate the Miami jetport adjacent to the Everglades National Park.

If the jetport is built and operated, and if adjacent private development occurs, much the same way as we have built our cities and suburbs, there is little doubt that the unique values of the park will cease to exist.

A publicly bought and paid-for natural environment will be lost, and we believe your committee is performing a valuable public service by airing this issue.

Last week, Secretary Hickel and Secretary Volpe appointed a joint committee to coordinate environmental studies relating to the Miami port and the Everglades.

In our view, this was a commendable step. In fact, it should have been done long ago, certainly before May 7 of this year when the Federal Aviation Administration advised us by letter, and I quote:

That the selection (of the site) was soundly made and represents the best possible choice with every consideration given to the many various interests which were involved.

How euphemistic this is, we frankly don't know. However, regardless of the findings of the current interior transportation study, it is our opinion that we may have to live with the jetport where it is now located anyway. If that will be the case, as we believe it will, then the current study should prepare us adequately to do so.

The reason for this opinion, Mr. Chairman, is that like it or not, we seem to be confronted with an accomplished fact. The Federal contribution to the training facility has been paid in; bond sales locally have already been committed and the port is already under construction with at least one runway to be completed by September.

Further, it seems apparent that the Dade County Port Authority, which has had public support in Florida to this point, could go it alone on further construction if it had to, and on use of the facility at least as a training port. I understand that even this limited use is economically feasible.

Furthermore, there is considerable doubt that adjacent development, which poses a far more serious threat to the park, can be stopped.

The 500,000 acres in the watershed is in private ownership with an estimated price tag of between \$70 to \$100 million.

Added to the \$17 million or so worth of inholding within the park boundaries, the persistent lack of an adequate water supply in dry years and the inevitable movement of people to the area over the next decade or two, the park is in serious trouble—with or without the jetport. In that light, the jetport may be providential.

Last week before this committee, Under Secretary of the Interior Russell Train stated that the implications of the Everglades problem goes far beyond merely local considerations and that the issue of the Everglades is symptomatic of what is happening throughout this country and throughout the world.

"The pressures of a growing, mobile and demanding population on our diminishing resources," he said, "if continued unplanned, can end forever what is now left of our national landscape."

Mr. Chairman, many of us do not believe it is possible any more to simply move our problems to another location. If a major public facility such as the Miami jetport is built and operated, and adjacent private development built and operated, in such a way as to ruin a park environment, then it can also be built to ruin man's living environment somewhere else, and in all likelihood, it will be.

As long as highways have to be built where people want to travel and as long as our urban complexes have to be built where people live, these developments must be done with far more appreciation for the natural world.

As we understand it, this is what the chairman's commendable legislation to create and environmental quality council is all about, and it is applicable here.

Otherwise, the only alternative left would be to buy up all of the natural world. There isn't money enough to buy enough to serve all of man's basic needs.

Mr. Chairman, the jetport could be a catalyst to solve some of the longstanding problems of the Everglades. With that consideration, we sincerely hope that the joint study being conducted by the Interior Department and the Department of Transportation will be the fruitful effort it promises to be.

Further, Interior's efforts to negotiate a meaningful supply of water for the park with the Corps of Engineers should be given every support.

And finally, it is our hope that the Greater Miami metropolitan area, and all of the interests involved who would benefit by having the Federal Government approve the training port for passenger service, will use every persuasion and resource to make the tricity area the kind of adjacent environment for people that would complement rather than ruin the unique natural environment of the park.

We have heard from league members in southern Florida expressions of hope that these hearings will lead to such solutions. People locally who appreciate the Everglades National Park worked diligently for its founding in 1934 much as they are working for the Biscayne Bay National Monument today. They have constructive suggestions and specific knowledge that would be helpful to these deliberations.

We feel that field hearings in Florida would encourage their comments and their hopes that meaningful solutions to the problems of the Everglades will be forthcoming.

Thank you.

Senator NELSON. Thank you, Mr. Pankowski, for a fine statement.

Mr. PANKOWSKI. Thank you, Mr. Chairman.

Senator NELSON. Our next witness will be Mr. Joe Browder, southeastern representative of the National Audubon Society, Miami, Fla.

Welcome to the committee, Mr. Browder. Please proceed with your statement as you wish.

**STATEMENT OF JOE BROWDER, SOUTHEASTERN REPRESENTATIVE,
NATIONAL AUDUBON SOCIETY, MIAMI, FLA.**

Mr. BROWDER. Thank you, Mr. Chairman.

The Everglades water crises resulting from poor management by the Corps of Engineers and State flood control district have been so dramatic that many persons have assumed that all of the park's water problems have risen from conflict with flood control policies. This has led to the false and dangerous belief that all of the park's problems are related to the flood control district, and that any project developed outside the district couldn't really make much difference to the park.

An airline executive, William Raven, Pan Am, who helped select the Collier County jetport site was genuinely surprised to learn that development in that area would have an impact on the park's water supply. His surprise was also a reflection of the absolute lack of environmental consideration in the Dade County Port Authority's search for a new jetport site.

The port authority, the aviation industry, and the Federal Aviation Administration gave no real consideration to environmental problems, and they still have failed to show any understanding of the true extent of those problems.

The port authority has tried to dismiss as "alarmist" the repeated efforts of conservationists and State and Federal agencies who warned that development of the present site could endanger the park.

The Department of Transportation has expressed concern over possible environmental problems, and is finally cooperating with the Department of the Interior to determine what might be the results of jetport development near the park.

This cooperation is encouraging, even though it falls far short of the early consultation called for by section 4(f) of the Transportation Act. And it appears that not all Department of Transportation officials share the concern expressed by Secretary Volpe.

On April 23, 1969, the Secretary's Office received a letter from a Miami resident who supports development of the present site. The letter was routed to an FAA official, who passed it on to the Dade County Port Authority as evidence of their wisdom in building an airport in the Big Cypress.

The letter to Secretary Volpe reads:

Too much of south Florida is dictated to by conservationists. I urge you to consider not all of us living in this area are daffy over every little creature in the Everglades. This area needs the jetport—like we don't need national-level conservationists.

To my way of thinking, the Everglades National Park should be about one-third the land area it is now. There is a terrible sameness about saw grass, hammock, alligator, cabbage palm clumps, egrets, miles of saw grass, etc. etc.,

Now we are to not disturb the dear little creatures with the noise of airlines. And don't build any cities around the jetport because it may pollute their environment.

So not only does the park have thousands of more acres than is really necessary (except to conservationists) but we must provide an additional buffer zone before building any commercial enterprises. Hogwash.

The creatures who cannot survive in the tremendous wilderness the bleeding hearts have set aside (Everglades Park) can plain up and die for all I care.

The Chief of the Federal Aviation Administration's Development Programs Division sent this letter to Dade County Port Authority Director Alan Stewart, with a note that said, "We believe you will be pleased to receive this expression of satisfaction with the selection."

Mr. Chairman, I am afraid this letter and its endorsement by an FAA executive very accurately represent the attitude and actions of the airport builders. However, it would be more charitable to believe that those who support this dangerous project do so unwittingly, because they do not understand.

Last week, less than 48 hours after this committee heard Secretary Train explain the grave threat posed by the project to Everglades National Park, the president of one of the airlines most interested in the jet port spoke to a chamber of commerce meeting in Miami.

He assured the business leaders that there is no need to worry, because planning and landscaping will keep the jetport from doing any harm to the environment.

We believe the Everglades and Big Cypress are already very well landscaped. As for planning, we have seen evidence of nothing but after-the-fact efforts to try and justify a bad decision.

From the beginning of its search for a wilderness jetport site, the Dade County Port Authority assured everyone concerned that nothing would be done to harm Everglades National Park. But the location of the Big Cypress site was not publicly revealed until after the port authority had already decided to condemn the land.

Following selection of the site, State and Federal agencies were asked to comment on the development and attend meetings with the port authority consulting engineers.

The meetings produced little but more concern on the part of Federal officials—concern that led to more questions about port authority plans. The port authority's usual reply to such questions was, "We don't know."

The port authority took the position that it was building nothing more than a training facility, and so could not plan beyond that stage.

Yet, during this same period of time, the port authority was negotiating with the Department of Transportation over plans for an experimental high-speed ground transportation system between the jetport and Miami.

Surely the port authority and the Department of Transportation didn't plan this multimillion-dollar facility just to serve the 10 employees the port authority says will be working at the training airport.

It was a courageous State official, Chairman Robert Padrick, of the governing board of the Central & Southern Florida Flood Control District, who raised the first alarm about the difference between the port authority's stated position and its apparent intentions.

Mr. Padrick disclosed that, in spite of repeated assurances to the contrary from Deputy Port Authority Director Richard Judy, the State planned to build a new highway barrier across the Everglades from Miami to the jetport.

Controversy over the highway question led to more widespread public interest in the port authority's other jetport development plans.

Five months after construction had begun, Dade County held its first public hearing on the jetport, and the port authority promised again to see that the jetport and associated development would not harm the Everglades.

Supporters of the present site continue to pledge with confidence that the park has nothing to worry about, because research and planning will solve all problems.

But on April 14, Director Alan Stewart told port authority members:

If the conservationists want to stop industrial and commercial development, they are going to have to save up their pennies and buy up the land. What they are saying is that they don't want a city to rise up around an airport but everywhere I know about, that's what's happened.

At least Mr. Stewart is being frank and realistic. Other Dade County officials are now reassuring us that airports don't attract people.

On May 1, at a meeting in Miami, the Dade County Port Authority outlined its environmental master plan, the same one that is the foundation for the interagency study committees now functioning under port authority sponsorship.

When Everglades National Park Superintendent John Raftery asked Deputy Port Authority Director Richard Judy if a biologist

had helped prepare the plan, Mr. Judy replied that he considered the question to be cross-examination, and added, "We at the port authority don't have time for this."

At the same meeting, Mr. Chris Lamberton, a partner in the firm—Howard, Needles, Tammen & Bergendorff—acting as consulting engineers to the port authority, admitted that no part of the environmental planning at the jetport could be considered binding, and that there would be no commitment to follow any part of whatever plan is developed.

To quote Mr. Lamberton, "We did not buy this for a park. Some day we might have a need for all of it."

On May 19 in Palm Beach, Mr. Judy admitted that research sponsored by the port authority is designed to prove that the jetport can be developed without harming the environment, and not to determine if the project is in fact compatible with Everglades National Park.

Mr. Judy added that even if the present site were found unsuitable, he did not believe the Dade County Port Authority would look for another site.

What of the regional planning authority now being formed by Dade, Collier, and Monroe Counties?

State Planning Director Homer Still is coordinating efforts to bring the three counties together. Mr. Still did not recommend creation of a strong planning agency, because he said that would raise serious questions about surrender of local authority.

In convening a meeting of the three county commissions to discuss organization of the regional authority, Mr. Still purposely failed to notify the National Park Service or other concerned agencies. The planning director said he felt the county commissioners would deliberate better if they were free from the pressure of observation by the National Park Service or conservationists.

Friends of the park were present at the meeting anyway, and able to observe the commissioners agree to establish a tricounty planning agency.

But the agency will be strictly advisory, leaving each county to follow its own conscience in regulating development in the park's watershed.

We can gage the effectiveness of such planning from a statement made on May 9 by a Collier County planning agency spokesman, who said that Collier County intends to turn the jetport area into one of the State's leading heavy industrial development sites.

The best summary of the effect of environmental planning and control was printed in the St. Petersburg Times on April 29, as part of an interview with Deputy Port Authority Director Judy.

Quoting from the interview, we read:

Regardless of what the environmental plan might dictate, however, "We're going to build the jetport," Judy said. Judy predicted "The forces that will come to play will destroy the conservationists."

This is the kind of environmental planning supported by the Dade County Port Authority and accepted by the Department of Transportation.

We also believe in the need for planning—planning to make certain that no further developments inside or outside the park bound-

aries will degrade the quality or diminish the quantity of the park's water supply, wildlife, and wilderness values.

The National Audubon Society respectfully urges this committee to help resolve the conflicts among Federal agencies involved in this issue.

If that can be done in favor of the Everglades, we will have gained more than the assurance of survival of a great national park—we will have redirected our civic, economic, and political energies, to help shape a policy of environmental excellence for all America.

Senator NELSON. Thank you, Mr. Browder, for your statement to the committee. We appreciate it.

Mr. BROWDER. Thank you, Mr. Chairman.

Senator NELSON. The next witness will be Mr. Nat Ratner, treasurer, West Dade County Improvement Association.

Mr. Ratner, you may proceed with your statement in any manner you wish.

STATEMENT OF NAT RATNER, TREASURER, WEST DADE COUNTY IMPROVEMENT ASSOCIATION, FLORIDA

Mr. RATNER. Thank you, Mr. Chairman.

I present herewith the resolution of the West Dade Improvement Association, a nonprofit organization chartered in 1961 by the State of Florida. This statement is supplemental to the resolution. Our view is one which I believe is shared by a vast majority of Dade County residents and visitors to our area, as follows:

1. The jetport site at 40-Mile-Bend has been approved and recommended by the Dade County Commissioners and Dade County Port Authority and the airlines after thorough and exhaustive research and survey of all possible sites, some 17 in number.

No other location was found, nor has any other location been suggested by any person or group, as good as the subject location, which embodies a 36-mile-square tract of land.

Large size is essential to the future of this airport and other cities and counties which have constructed their airports on insufficient land have had to pay dearly for their lack of vision.

Other possible sites have been demonstrated to us to be more damaging than the one in question, the number of sites being limited by the fact that 30 percent of Dade County is occupied by Everglades National Park and 20 percent by the flood control storage area. The remaining possible sites are too close to man or much more difficult of access from most of Dade and Broward Counties. The proposed jetport site also is sufficiently distant from the existing airports so as not to conflict with traffic patterns.

2. Lives may be saved by locating the jetport at the recommended site and there may be both a military and civilian benefit therefrom.

I enclose herewith an exhibit (exhibit 1) which has not been made public before, consisting of a letter from the U.S. Department of Commerce Civil Aeronautics Administration dated May 13, 1958, agreeing that there is a serious need for landing strips in this area to serve the five airways which traverse this area. There have been numerous downed aircraft where lives were lost which might have been saved if there were landing facilities in this area.

I enclose a letter signed by Captain McMullen of the U.S. Coast Guard (exhibit 2) indicating that three Coast Guard aircraft have crashed in this vicinity. A number of other military aircraft have been downed in this area from time to time and the Federal Aviation Authority has more detailed information which will be forwarded to the committee.

I enclose photograph of downed aircraft (exhibit 3), taken by the writer in this area just north of the 40-Mile-Bend and newspaper clipping (exhibit 4) showing the loss of 47 lives in an aircraft crash near the 40-Mile-Bend.

3. Damage to flora and fauna will be minimal compared to other locations. The area commencing one-half mile east of the projected jetport is occupied for hundreds of square miles by a water storage area under jurisdiction of the central and southern Florida Flood Control District.

Native wildlife in this area, which is approximately 16 miles by 32 miles, extending far into Broward County, has been almost entirely decimated by the flood control district in attempting to utilize this area as an artificially created water storage basin.

Twenty years ago, when I first visited the area north of the 40-Mile-Bend, I was smitten with the natural beauty and peaceful tranquillity of the area. Deer, in particular, were abundant, as were a wide variety of bird and animal life.

I am enclosing herewith a photograph (exhibit 5) showing how very abundant the deer were, and displaying two of them lashed around the fenders of a hunter's car. There were so many deer that they were there for the taking.

Slowly the dikes were built around this area to impound water, and when the last dike was proposed, I, and the members of the West Dade Improvement Association, engaged John B. Orr, an attorney and former State legislator, who went to Washington and appeared before the House of Representatives Committee on Appropriations headed by Clarence Cannon, and protested the completion of the last levee. Nonetheless, the flood control district completed this levee as planned and slowly the water levels commenced to rise.

The water that would have normally gone into the Everglades National Park was now trapped. The wildlife in the storage area drowned. The park became parched and choked, unable to get the water it had always received.

How do I know these things? I personally have visited the area approximately 7 miles north of the 40-Mile-Bend on a continual basis, going there for the first time while still convalescing from injuries received in the line of duty while serving with the Army Air Corps. The crutches you see in the enclosed picture (exhibit 6), lying in the bottom of the canoe poled by my Seminole friend, belonged to me.

The water storage area functions imperfectly, and there are periods of drought as well as periods of flood and wildlife which needs water in this area dies during the drought period.

Alternate periods of drought and flood have reduced any wildlife to insignificance; as a consequence, the proposed jetport would have little effect on wildlife easterly of its border. The effect on wildlife south of the jetport would also be diminished by virtue of the fact that prevailing winds are southerly and easterly. Air pollution consisting

of jet fuel residue would therefore be blown away from the park. Sonic boom in the jetport area already exists, and aircraft landing at Miami International Airport fly directly over the jetport area at low altitude to make their landing approach. Anybody who has been over the 40-Mile-Bend area in a small aircraft, as I frequently have, becomes painfully aware of the huge jetliners now swooshing down. It is better to have these jetliners approach from the west, than from heavily populated areas east, north or south of the airport.

To locate a noisy jetport close to a populated area is unthinkable. It isn't just that our TV sets become wiggly, or that we can't talk on the telephone. The situation is more serious than that.

It is possible that human life may be shortened by being subjected to sonic booms and inhalation of imperfectly combusted jet fuel residue. Who can say?

Has any actual evidence been shown that aircraft damage or even inhibit wildlife?

Miami International Airport is a national refuge for the burrowing owl; during my own pilot training I recall difficulties in getting coyotes and jackrabbits off the runways, and fellow pilots advise me that in Africa the trouble is jackals on the runways and at Wake and Midway, goony birds.

4. The opponents of the jetport in this location would have you believe a honky-tonk atmosphere would ipso facto be created in the area. This aspersion is baseless, reckless canard on the residents of Dade County and their elected officials, and particularly upon the Metro Commission.

A more likely prediction is that natural beauties will be enhanced and made more accessible by carefully controlled development under relevant governing authorities. Dade County's Crandon Park shows how well Dade County preserves its resources.

5. We should be glad we live under a system where improvements like this will be located where they confer the maximum benefit to the maximum number of people. There are no special interests that benefit from this particular location.

There are special interests seeking other locations and it is perhaps natural that some landowners and the mayors of some municipalities far to the north or to the south would like a jetport to help the development of their land, but the airlines of America, with billions invested in America's aviation future, and the Dade County Commissioners, Air Pilots' Associations, and other civic groups have selected this site because it is the best site.

If any person be charged with benefiting from the jetport location, it would be me, as the owner of 1,280 acres with 2 miles of frontage in Dade County on the east border of the jetport, plus some additional acreage partly devoted to a small farm, a portion of which was long ago offered to Dade County as a gift (exhibit 7). I will not attempt to conceal my ownership of this property; however, all of America will benefit by selecting the best location for this jetport.

How long will we continue to zoom through the sky at supersonic speed, seduced and soothed by the taste of filet mignon, the sound of music, the sight of lovely stewardesses, and then have to wait an hour or more while the plane circles before landing, or land elsewhere because the airport is too small and/or poorly located?

Mr. Chairman, that concludes my statement.

I request that the attachments to my statement be included in the record, if possible.

Senator NELSON. That request is granted. They will be placed in the record at this point.

(The documents referred to follow:)

U.S. DEPARTMENT OF COMMERCE,
CIVIL AERONAUTICS ADMINISTRATION,
INTERNATIONAL AIRPORT BRANCH,
Miami, Fla., May 13, 1958.

Mr. JACK HORNER,
*Associate, Nat Ratner Real Estate,
Miami Beach, Fla.*

DEAR Mr. HORNER: This will acknowledge your letter of May 5, 1958, in which you advise that your company proposes to construct an emergency landing strip in the vicinity of 40 mile bend on the Tamiami Trail.

This office agrees that there is a serious need for emergency strips in several locations in the glades, particularly along the five airways that traverse this area. The assistance which this office can furnish you is limited, but we can offer you advice insofar as technical aspects of the development are concerned.

You are aware that your site will have to be inspected and licensed by the Aviation Department of the Florida Development Commission, and probably by the Dade County Planning Board.

If, after you have met these requirements, there are technicals you feel you would like to discuss, please feel free to visit this office, and we will endeavor to assist you to the extent possible.

Sincerely yours,

DAVID C. KELLEY,
District Airport Engineer.

U.S. COAST GUARD,
7TH COAST DISTRICT,
Miami, Fla., January 25, 1963.

Mr. NAT RATNER,
Miami Beach, Fla.,

DEAR Mr. RATNER: The map which was enclosed with your letter of January 23, 1963, is returned herewith. Our records show 3 aircraft crash sites in the vicinity of your property. They are marked on your map. There may well be other crashes there which we have no record of.

Very truly yours,

I. H. McMULLAN,
*Captain, U.S. Coast Guard,
Chief, Search and Rescue Branch.*

[From the Miami Herald, Feb. 13, 1963]

MIAMI-CHICAGO JETLINER CRASHES IN GLADES; ALL 43 ABOARD DEAD

(By Lee Winfrey and James Buchanan)

A Northwest Orient Airlines jetliner crashed and burned Tuesday in the Everglades wilderness about 50 miles west of Miami, killing all 43 persons on board.

The four-jet Boeing 720B was Northwest's non-stop Flight 705 from Miami to O'Hare International Airport in Chicago. It took off in murky rain at 1:35 p.m. and radio and radar contact with it was lost seven minutes later.

A Coast Guard helicopter sighted the wreckage of the five-million-dollar airliner on its last flyover as darkness fell shortly before 7 p.m. Two small fires pinpointed the scene.

The plane, carrying 35 passengers and a crew of eight, fell some 12 to 14 miles southwest of 40 Mile Bend on the Tamiami Trail, in a swampy wilderness of sawgrass and mangroves, nine miles from the nearest road.

Officials said the plane crashed in country so remote and impenetrable that only "weasels," bathtub-shaped vehicles with wheels, could reach the scene. The land around the area was described as too soft for swamp buggies, but without enough water to support airboats.

The bodies of the victims are scheduled to be brought out of the wilderness today to 40 Mile Bend, west of Miami on the Tamiami Trail. A temporary morgue was being set up Tuesday night at Miccosukee School near there.

Most of the passengers were tourists from the Midwest. Some of them maintained winter homes in Fort Lauderdale.

The only known victim from Dade was Joseph Wubbold of Coral Gables. An executive with International Petroleum Co., he was going to Chicago for a business meeting.

BOARD OF COUNTY COMMISSIONERS,
METROPOLITAN DADE COUNTY-FLORIDA,
Miami, Fla., March 22, 1962.

MR. NAT RATNER,
Miami Beach, Fla.

DEAR NAT: Thank you so much for your letter of March 13, offering to dedicate property known as "Sam Willy Seminole Village", to Dade County, for recreational purposes.

I shall certainly bring this to the attention of all county personnel who have an interest in the subject matter.

Cordially yours,

ALEX S. GORDON,
Chairman, Board of County Commissioners.

WEST DADE IMPROVEMENT ASSOCIATION,
June 5, 1969.

Whereas this association since its founding in 1961 has taken an active role in conservation activities, having appeared before the 87th Congressional House Appropriations Committee to help the Everglades National Park, and whereas the officers of this association have made a careful study of available and relevant information concerning the proposed Jetport location, including the examination of the minutes of the Metro Commission and Dade County Port Authority, now therefore be it resolved:

The West Dade Improvement Association hereby places itself on record as favoring the site of the proposed Jetport as approved by the Dade County Commission and Port Authority and all the major airlines serving greater Miami. The Association believes that any other location could cause far greater damage to the flora and fauna of this region and cause greater damage and discomfort to the specie homo sapien—man—by noise and by pollution caused by sonic boom and incomplete fuel combustion.

JORDAN DAVIDSON, *President.*
MILTON WEINKLE, D.D.S.,
Vice President.
NAT RATNER, *Treasurer.*

Senator NELSON. Thank you for your testimony, Mr. Ratner.

Mr. RATNER. Thank you, Mr. Chairman.

Senator NELSON. At this time the committee will stand in recess subject to the call of the Chair.

(Whereupon, at 12:45 p.m. the committee recessed, to reconvene subject to call of the Chair.)

APPENDIX

(Under authority previously granted the following communications were ordered printed:)

STATEMENT OF MICHAEL NADEL, ASSISTANT EXECUTIVE DIRECTOR AND EDITOR, THE WILDERNESS SOCIETY

I am Michael Nadel, Assistant Executive Director of the Wilderness Society, and Editor of its quarterly magazine, "The Living Wilderness." The Society is a national conservation organization, established in 1935, and has over 50,000 members. The programs of the Society relate to the preservation of the remaining wilderness lands of our nation, and to broad conservation concerns relating to public lands.

We are concerned with the perilous situation of the Everglades National Park because of the artificially-brought-about shortage of water, so necessary to the survival of the Park, and because of the construction of nearby Miami Jetport on Big Cypress Swamp, which, it is anticipated, would bring devastating ecological changes to the Park.

WATER

Water is the key to the survival of the Everglades. For centuries water came to the Everglades in what has been described as "a continuous plane many miles in width." Without an adequate fresh water supply there would be no Everglades and a very restricted homogeneous wildlife.

Agriculture and housing came into the region. The flood and surface waters which benefited the Everglades were not welcome to the farmers and the developers. The Corps of Engineers built control flood control and reclamation projects which robbed the Park of water—water which otherwise would flow into it naturally. The farmers and the developers became the beneficiaries of the projects, while the Park, which had been there before them, found itself denied the water which was diverted to the ocean and to the gulf.

Public pressure and the persistence of the Park Service finally won an "understanding" with the Corps of Engineers that the water supply from Lake Okeechobee and the so-called conservation areas would be regulated so that the water requirements of the Park would be met on an emergency basis. Subsequently the Corps of Engineers retreated from this understanding and declared that they had neither the authority nor the obligation to provide water to the Park without clearance from the State of Florida. But the Corps of Engineers, according to one knowledgeable source, does envision "expanding urban and agricultural developments which will absorb all available excess water by about the year 2000."

JETPORT

The 10,500-foot airstrip under construction on Big Cypress Swamp for the training of commercial jet pilots is the prelude to a 39-square-mile jetport, six miles north of the northern boundary of Everglades National Park. Associated with this jetport would be a high-speed transportation corridor, and a huge residential and commercial complex.

This jetport, now in its swaddling clothes, is an intrusion upon an ecologically unique and important region. Its detrimental effects will derive from petrochemical pollution, with anticipated serious effect upon Conservation Area 3, and upon the waters of the Park. Noise pollution could affect the habits of the wildlife of the Park; it would affect visitations by the public.

RESEARCH

We suggest that in-depth research be undertaken to evaluate qualitatively and quantitatively the prospective damage to the Everglades National Park from

these and other influences. There is a possibility that some of the drainage canals in the agricultural lands to the east are draining lands within the Park; there is a need to protect the interior of the Park from invading salt water. To what degree should fire be controlled in the Park? The answers to these questions are necessary in order to preserve the resources of the Park.

WILDERNESS

The dedication of adequate wilderness boundaries in the Everglades National Park, under the Wilderness Law of 1964, will serve to help secure the survival of the ecological resources which make the Park unique. "There are no other Everglades in the world," said a writer in 1947.

Adequate wilderness boundaries, together with the rejection of unnecessary regional alteration or interference, can assure a living Everglades National Park for posterity.

I thank you for the privilege of presenting this statement in behalf of the Wilderness Society.

FEDERATION OF WESTERN OUTDOOR CLUBS,
Seattle, Wash., June 10, 1969.

Senator HENRY M. JACKSON,
Senate Interior Committee, Senate Office Building,
Washington, D.C.

DEAR SENATOR JACKSON: As you know, the Federation of Western Outdoor Clubs has a long standing concern for the quality of the American environment, including reservation of remnants of its unique and wildlife populations, and significant natural areas. Even though we are largely a western organization, our concerns extend across the entire United States.

It is with this background in mind that we write and wish to have this statement an official part of the hearings record which you are conducting regarding Everglades National Park.

As you know, the most urgent problem currently facing the park are the questions of maintaining an adequate water supply so that the ecological balance within it may be maintained, and the proposal of the agencies of the State of Florida to build a 39 square mile super jet airport within six miles of the park, which also could not only have a detrimental impact upon the parks water supply, but would also create pollution and noise problems.

Other problems, which do not usually come to the public attention, are the problems of the 74,000 acres of privately owned lands within the park boundaries, the problem of pesticides draining into the park due to agricultural developments surrounding it, and the introduction of exotic species of plants and animals.

Everglades National Park is a natural environment, a combination of fauna and flora unduplicated anywhere else in the United States. The Act of May 30, 1934, which authorized its establishment stated that the area should be preserved as a wilderness, and no development should be undertaken which would interfere with the preservation, *intact*, of unique flora and fauna, and be primitive in natural conditions of the region.

Surely, the combination of present and potential threats outlined above will operate in the most direct manner to negate the purposes of this Act, and the reasons for which the park was set up. A great many of the problems appear to be due to a lack of planning and coordination of the various federal and local agencies involved in the development of the surrounding region.

That protection of the outstanding natural environment of the Park itself should take precedence over other proposed developments of the surrounding region. The need of the Park for an adequate water supply, the need for maintaining the ecological balance of the fauna and flora within it, and the need to protect the outstanding primitive values of the Park from encroachment by noise or other forms of pollution, should all be first priority. This is because there are other places to build jet ports, there are other places to farm, there are other places to develop for living purposes, but there is no other Everglades National Park or any chance to preserve such a significant and outstanding resource anywhere in this country. What is there is all we have.

We therefore urge the Senate Interior Committee to keep the primary values of the Park paramount in its mind, as it hears testimony, and attempts to devise solutions to the pressing problems of the Park itself. We strongly urge you to take no steps which would operate in any manner to destroy these values.

Very truly yours,

BROCK EVANS.

NATIONAL RIFLE ASSOCIATION OF AMERICA,
Washington, D.C., June 10, 1969.

HON. HENRY M. JACKSON,
Washington, D.C.

DEAR SENATOR JACKSON: On April 21, 1969, we wrote to the Honorable John A. Volpe, Secretary of Transportation stating the opposition of our Association to the construction of a jetport west of Miami, Florida, we said: "Some twenty years ago the Congress of the United States of America chose, on behalf of the citizens of this country, to preserve a microcosm of an ancient and unique environment, which exists in one place alone, by establishing the Everglades National Park.

This subtropical park teems with irreplaceable animal and plant life. Rare and endangered species of animals find haven within its confines. Florida Bay, which is part of the park, is the Gulf of Mexico's major spawning ground for shrimp and other commercially important fishes and marine life. The park is unique and invaluable to the citizens of Florida and the entire nation.

Now there has been proposed and promoted by certain profit seeking private groups the establishment of a monstrous jetport west of Miami and lying astride the flow of fresh water from Central Florida which is vital to the existence of the Everglades. If this construction is undertaken there is no doubt in the minds of ecologists that the Everglades National Park in time will die, and again man in his avarice will have stepped a little closer to oblivion.

There is no conceivable means by which this construction as proposed can be accomplished without stopping the flow of high quality fresh water into the park. The truth of the matter is that even now it is necessary to allocate the available supply of fresh water among many users with the park's share barely adequate to meet its ecological needs.

There appears to be some question as to the actual need for the proposed jetport since a measure of the need as quoted by its proponents is the additional million and a half residents who are expected to be attracted to the area by the construction project of the jetport.

We recognize that many other conservation organizations have voiced opinions on this matter and are pressing for an early settlement of the problem. We join them, Mr. Secretary, in urging that before any further construction is undertaken that every facet of this question receive your closest and most critical scrutiny, keeping in mind that every step toward constructing the jetport, supporting highway and administrative complexes will do irrevocable damage to the environment of South Florida. There still remains on this earth some values which are unchanged and cannot be measured in dollars and cents. We have every hope, Mr. Secretary, that your decision in this matter will be made with that fact in mind and that the Everglades National Park will remain inviolate for all time."

Our position has not changed. We are still of the opinion that it is in the best interest of all the citizens of this nation to take whatever steps are necessary, be they administrative or legislative, to reconfirm the earlier decision of the Congress of the United States to protect forever the unique environment of the Everglades National Park.

Because of earlier commitments I must, regretfully, ask that this letter serve as a substitute for my personal testimony before your Committee in behalf of the million-plus sportsmen who make up the membership of the National Rifle Association. On their behalf I ask that this letter be made part of the record of the proceedings of the Senate Committee on Interior and Insular Affairs.

Sincerely yours,

FRANKLIN L. ORTH,
Executive Vice President.

WEST COVINA, CALIF., June 8, 1969.

HON. HENRY M. JACKSON,
Chairman, Senate Committee on Interior and Insular Affairs, Senate Office Building, Washington, D.C.

DEAR SIR: I as many concerned Americans welcome your conduct of hearings regarding the proposed jetport to be constructed in the Everglades section of the state of Florida near Miami. The impulse of Miami supporters to support growth without consideration of the impact on the countryside is to be expected and only makes more important that responsible individuals stand ready to evaluate

the consequences of proposed developments and evaluate them in the best long range interests of our nation.

My introduction to this project was via an article in the Los Angeles Times of October 9, 1968 under the title of "Miami Goes to Swamp for Spacious Airport". Historically swamps have been related to something to be overcome and changed to satisfy more obvious needs of man. That day is past and now I submit we must preserve those places of basic creation that those fundamental processes from which we evolved can continue.

My reaction to the article as published in the Los Angeles Times was one of alarm to the extent that I issued a letter to the editor of the Los Angeles Times that was published on October 15, 1968.

I respectfully request that the letter to the editor of the Times be entered in the hearing record to record my considered position on this proposed development.

Very Truly Yours,

LYLE A. TAYLOR.

[From the Los Angeles Times, Oct. 9, 1968]

MIAMI GOES TO SWAMP FOR SPACIOUS AIRPORT—OFFICIAL SAYS EVERGLADES GIVE PLENTY OF ROOM "RIGHT INTO TIME OF SPACE SHIPS"

MIAMI.—A mammoth airport designed to span the supersonic age of commercial flight and the age of space travel is being carved out of the cypress swamps of the Everglades.

"It's no fantasy," said Alan C. Stewart, director of the Dade County Port Authority. "No matter how big they build the monsters of the airlines, we'll have space for them."

"This airport takes into consideration the most optimistic projections of the future needs of aviation, right on into the time of passenger space ships. We've got plenty of room out there."

The jetport is under construction in the watery wilderness 45 miles west of Miami. To the north and west are miles of swamps. To the east is a 15-mile-wide flood control water storage area. To the south lie the jungles of Everglades National Park.

BIGGER THAN MIAMI

The 38-square-mile jetport site is bigger than the city of Miami. It could absorb all the runways of Los Angeles, San Francisco and Washington international airports and New York's Kennedy.

Endorsing the project with a \$500,000 planning grant, the Federal Aviation Administration sees it as a forerunner of a network of superports straddling the world in strategic locations.

Miami, already a major jumping-off port for Latin America, "could become the major intercontinental airport for the southern United States, with schedules out to Tokyo, Paris, London, Moscow," said Paul Boatman, FAA area manager.

Stewart, a former pilot and air traffic control chief, added, "You can't build airports all over the country to handle the air leviathans of the future. They'll have to be located in key cities—Hong Kong, Miami, London—and the big planes of today will become the feeder lines of tomorrow operating out of these ports."

A key part of the plan is an 800-foot-wide transportation corridor connecting Florida's east and west coasts and splitting the middle of the jetport. Plans call for an electronic roadway to move automobiles at high speeds, fast-moving hovercraft like those operating over the English Channel, and vacuum-propelled capsulized freight.

ADVANCES ON GROUND

But by the time the jetport is completed in 1975, plans for the corridor may have been totally revamped. "By then," Boatman said, "there will be advances in the art of ground transportation that we haven't heard about yet."

High-speed corridors are necessary. Without them, the passenger could run into a supersonic paradox at almost any major air terminal. It would take him longer to get to and from the airport than to cross the Atlantic.

The first of two 3-mile-long runways is scheduled for completion in October, 1969. Then about 200,000 annual training and transitional flights of big jets will be transferred from Miami International to the jetport. This will reduce noise and

congestion at Miami and clear the way there for bigger planes due in 1970 and 1971.

Two 6-mile-long runways will be ready by 1975 for 1,000-seat airliners. By then, Stewart said, the jetport will have the facilities to handle 150 million passengers a year.

The jetport site, much of it now accessible only by airboat or swamp buggy, was acquired from 2,400 owners for \$3.4 million, less than \$150 an acre.

Because of the dramatic difference in land values, Stewart said, Miami can build a six-mile runway for what it would cost the New York Port Authority to lay a 5,000-foot strip.

A \$50 million bond issue has been floated. The total cost, after terminal facilities are added for the jumbo jets, is estimated at \$150 million.

The vast perimeters of the jetport will be bordered by a mile-wide buffer zone in which no construction will be allowed. In a 3-mile zone beyond that, no living facilities will be permitted except soundproofed apartments and hotels.

"I'll make you a bet," Stewart said, "That five years from now the hotels will be there. A large city will grow up around this jetport. We think it will have aircraft manufacturing plants and even an air college."

METROPOLITAN DADE COUNTY, FLA.,
BOARD OF COUNTY COMMISSIONERS,
Miami, Fla., May 29, 1969.

HON. JERRY T. VERKLER,
Director of the Staff,
Senate Committee on Interior and Insular Affairs,
Washington, D.C.

DEAR MR. VERKLER: I am enclosing certified copy of Resolution No. R-694-69, adopted by the Board of County Commissioners in its meeting of May 28, 1969, requesting permission of United States Senate Committee on Interior and Insular Affairs to file Authority's policy statement relevant to Dade-Collier Airport; urging Senate Committee to schedule further meeting in Dade County and directing Authority's Staff and consultants to continue environmental studies and investigations.

Yours very truly,

EDWARD D. PHELAN, *Deputy Clerk.*

[Enclosure]

RESOLUTION No. R-694-69—RESOLUTION REQUESTING PERMISSION OF UNITED STATES SENATE COMMITTEE ON INTERIOR AND INSULAR AFFAIRS TO FILE AUTHORITY'S POLICY STATEMENT RELEVANT TO DADE-COLLIER AIRPORT; URGING SENATE COMMITTEE TO SCHEDULE FURTHER MEETING IN DADE COUNTY AND DIRECTING AUTHORITY'S STAFF AND CONSULTANTS TO CONTINUE ENVIRONMENTAL STUDIES AND INVESTIGATIONS

The following Resolution was offered by Commissioner Alexander S. Gordon, seconded by Commission R. Hardy Matheson, and upon being put to a vote, the vote was as follows: Neal F. Adams, Aye; Alexander S. Gordon, Aye; Harold A. Greene, Aye; R. Hardy Matheson, Aye; Thomas D. O'Malley, Absent; Arthur H. Patten, Jr., Aye; Ben Shepard, Aye; Earl M. Starnes, Absent; Chuck Hall, Absent. The Mayor thereupon declared the Resolution duly adopted.

Whereas, a hearing before the United States Senate Committee on Interior and Insular Affairs has been scheduled in Washington for June 3 and 4, 1969, by its Chairman, the Honorable Henry M. Jackson, United States Senator from Washington, to secure information relating to environmental problems of the Everglades National Park which may result from the establishment of jet aircraft operations at the Authority's Dade-Collier Airport; and

Whereas, the Director of the Authority has been invited to attend the Senate Committee hearing to express his views on plans to minimize any possible damage to Park values by reason of the development of the new Airport and projected growth of South Florida, but is unable to accept the invitation; and

Whereas, the Authority is fully aware of the vital importance of the inquiry of the Senate Committee, and shares its concern that all efforts should be made to protect the values of the Everglades National Park; and

Whereas, the Authority desires that its publicly established position with regard to environmental protection in and around its new Airport be made known to the Senate Committee; and

Whereas, it is the consensus of the Authority that the aims and objectives of the Senate Committee in this matter may be further served and more closely attained by holding a hearing in Dade County, Florida, in order that local governmental, conservation and aviation interests may have an opportunity to assist the Committee by expressions of their respective views: Now, therefore, be it

Resolved by the Board of County Commissioners of Dade County, Florida, acting as the Dade County Port Authority, That:

1. The Authority respectfully requests that it may be permitted on June 3, 1969 to present to the United States Senate Committee on Interior and Insular Affairs, and to file with the Committee's Staff Director, a written statement of the Authority's position and policy relevant to the establishment and development of airport facilities in Dade County and Collier County, Florida, in proximity to the Everglades National Park.

2. The Authority respectfully urges the Honorable Henry M. Jackson, as Chairman of the United States Senate Committee on Interior and Insular Affairs, to schedule a meeting of that Committee at its convenience in Dade County, Florida, in order that it may secure from local sources information pertinent to the subject of its investigation, and further, so that the members and staff of that Committee may visit the area upon which their inquiry is focused.

3. The Authority hereby directs its staff and consultants to continue with due speed in their studies and investigations seeking acceptable solutions to those environmental problems of the Everglades National Park which may result from the development of the Dade-Collier Airport, and in so doing to secure from all interests: governmental, conservation and wildlife, water control and aviation, such technical information and funding potentials as may be available.

4. The Clerk of the Authority is hereby directed to furnish certified copies of this Resolution to the Honorable Henry M. Jackson, United States Senator from Washington, as Chairman of the Senate Committee on Interior and Insular Affairs, and to the Honorable Jerry T. Verkler, Director of the Staff of that Committee.

Passed and adopted this 28th day of May, 1969.

BOARD OF COUNTY COMMISSIONERS
OF DADE COUNTY, FLORIDA, ACTING
AS THE DADE COUNTY PORT AUTHORITY,
E. B. LEATHERMAN, *Clerk.*

By EDWARD D. PHELAN, *Deputy Clerk.*

STATE OF FLORIDA,
County of Dade, ss:

I, E. B. Leatherman, Clerk of the Circuit Court in and for Dade County, Florida, and Ex-Officio Clerk of the Board of County Commissioners, acting as the Dade County Port Authority of said County, Do hereby certify that the above and foregoing is a true and correct copy of Resolution No. R-694-69, adopted by the said Board of County Commissioners, acting as the Dade County Port Authority, at its meeting held on May 28, 1969.

In witness whereof, I have hereunto set my hand and official seal on this 29th day of May, A.D. 1969.

E. B. LEATHERMAN,
*Ex-Officio Clerk, Board of County Commissioners, Acting as the Dade
County Port Authority, Dade County, Fla.*

By EDWARD D. PHELAN,
Deputy Clerk.

RALEIGH, N.C., September 8, 1969.

Senator HENRY M. JACKSON,
*Chairman, Senate Interior and Insular Affairs Committee,
Washington, D.C.*

DEAR SENATOR JACKSON: I am a Democrat who has just finished two years of being president of the Democratic Women of Wake County; I am a grandmother of six, all of them good campers and interested in saving the good earth for their children to come; I am an owner of wood land, some of this is harvested properly at intervals, some of which is never harvested for the sake of the wildlife, the streams, the water table, the silence of the woods. I feel that you are a friend,

because I have heard you speak and have felt that you were a Chairman to be trusted in your vital committee.

(The eight years of Mr. Nixon's presidency and of Mr. Hickel's secretaryship,—yes, the sadly inevitable eight years—will be the years when the good earth of America will either be defiled forever, past redemption, or else the years when the powers that be will take careful measures to protect—

Alaska, against the oil industry, which demands loose and unenforced regulations concerning their pipelines, and their destructive spills. Hearings should be held in more accessible cities than those of Alaska, so that citizens may attend and speak their convictions. The BLM should have funds enough to ascertain facts and see that regulations are enforced.

The Florida Everglades, against the incredible but swiftly progressing destruction of this area by the construction of airports and the diversion of water by the Army Corps of Engineers, which is the most conscienceless corporate sinner against American land we have.

The national parks, like the Great Smoky Mountain National Park, and the fast-diminishing wilderness areas.

Will you please count me in as a Conservationist opposed to selfish destruction and let my letter be included in the testimony on Alaska and the Everglades?

With all best wishes, I am

Sincerely yours,

Mrs. KATHERINE EDSALL.

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