Central Everglades Planning Project
Configuration Summary Sheet

BOX 1

Configuration Name: Establish a Unique and Descriptive Name of the Proposed Configuration.

MARSHALL PLAN (1981)
(~~ATTACHED~~)

BOX 2

Author of the Configuration: Identify the name of the Author that developed the Configuration during the exercise.

JOHN ARTHUR MARSHALL, TAKING THE "DESIGN" FROM THE ORIGINAL MARSHALL PLAN, 1981 ★
CAVEAT: THIS LIKELY GOES BEYOND CEPP INCREMENT #1. SO BE IT.

BOX 3

Configuration's General Description: This description should be able to convey the general aspects, elements, and general location of management measures in this configuration.

RESTORE SHEET FLOW TO THE GREATEST EXTENT POSSIBLE FROM LAKE OKEECHOBEE TO WCA 3, BETWEEN THE MIAMI & N. NEW RIVER CANAL, USING THE COMPARTMENTS A-1/A-2, THE HOLEY LAND-ROTENBERGER-TALISMAN LAND AND STA 3/4. RE-VEGETATE TO THE MAX EXTENT POSSIBLE, LAND AVAILABLE BETWEEN LAKE O, ROTENBERGER A-1/A-2. INCLUDE POND APPLE FOREST, S-GRASS PLAINS

BOX 4

★★ **Management Measures**: List the management measures used in the configuration (Deep Storage, Shallow Storage, STA, Restored Wetland, ASR).

- TOTAL SPATIAL EXTENT (ACRES) OF NATURAL ACRES RESTORED OR ENHANCED/PRESERVED.
- TYPE OF HABITAT CATAGORY RESTORED
- FUNCTIONAL QUALITY - WATER QUALITY/TIMING, QUANTY, QUALITY RESTORED

★★ MANAGEMENT OBJECTIVES PER CERP TABLE 5-1; MANAGEMENT BENEFITS IN $.

★ FOR THE FUTURE OF FLA - REPAIR EVERGLADES

How Water Flows Through the Configuration: This description should identify the travel route of the water that the configuration will be managing. Identify where the water is coming from and where it goes. The Author should be able to generally describe how the water gets from the originating water source (for example, Lake Okeechobee) to the final destination of the water.

Box 5

SAME AS 1981 MARSHALL PLAN
SEE ATTACHED:

"FOR THE FUTURE OF FL -
REPAIR THE EVERGLADES"

NOTE: THIS WAS SAME FLOW-PATH AS
USACE PLAN 6.

Objectives: Identify and prioritize (rank) the specific CEPP Objectives that the configuration is intended to meet (use the list of Objectives as needed).

Box 6

- RESTORED - RE-VEGETATED FLOW WAY CLEANS ADEQUATE AMOUNT OF H2O TO MEET DOWN-STREAM DEMANDS OF 2 MIL ACRE-FT / YEAR
- SIGNIFICANT INCREASE IN HISTORIC HABITAT ACREAGE LETS NATURE DO THE WORK.

Anticipated Benefits General Description: Identify why the Author chose the features in the configuration. List, prioritize and provide a general description of any benefits anticipated from the Proposed Configuration.

Box 7

- BENEFITS DESCRIBED IN 1981 MARSHALL PLAN (4 PAGES) AND TAKEN TO SFWMD, JUNE 11, 1981 (ATTACHED)
- ECO SYSTEM SERVICES EVALUATION WILL PROVE BENEFITS OF MARSHALL PLAN ALTERNATIVE

Operating Assumptions General Description: List anything specifically that the Author wants relative to the operation of the configuration. Examples might be operational changes within the confines of the LO Schedule to maximize improvements to water supply or the environment, or both; specific high and low levels for Lake Okeechobee; maximize pulse discharges or modify timing to natural system; manage project features wet or dry.

Box 8

- LET GRAVITY FLOW TREVAL WHEN LAKE IS, SAY > 13 FT.
- REDUCE DIKE BREACH RISK
- MAKE LIMITED USE OF ASR TO ACCOMPLISH KEEPING WETLANDS WET, IN DRY SEASON.
- NO DEEP WATER RESERVOIRS NEEDED.

H1: 6660 CFS FOR 5.5 MONTHS, AND 3330 CFS FOR 3 MONTHS PROVIDES W. QUANTITY DEMAND GIVEN H-2 Box 9

Other Key Elements: List the main Considerations that have not been mentioned elsewhere on this Form. Examples may include Water Supply in the Lake Okeechobee Service Area; deliver all available water to Florida Bay; Recreational Opportunities; etc.

Box 9

NUTRIENT UPTAKE OF HISTORIC POND APPLE FOREST. SINCE LAKE WAS ESTIMATED TO BE ABOUT P = 40 PPB, AND WATER IN SAW-GRASS PLAINS WAS ~ 10 PPB (±). POND APPLE FOREST MAY BE A NEEDED ADDITION

H2 - NOTE: 4:1 REDUCTION RATIO IS SAME AS STA'S ACHIEVING: CAN NATURE DO IT BETTER? USE KISSIMMEE RIVER RESTORATION AS EXAMPLE TO FOLLOW

H3 - INCREASED SURFACE WATER AREA WILL MAINTAIN RAIN MACHINE TO RESTORE A WETTER EVERGLADES

V/R
J. Marshall

FOR THE FUTURE OF FLORIDA
REPAIR THE EVERGLADES+

SPRING 1981

The Friends of the Everglades in concert with the Environmental Confederation of Southwest Florida (ECOSWF), Everglades Protection Association, Florida Audubon Society,- Florida Conservation Foundation (ENFO), Florida Defenders of the Environment, Florida Division of the Izaak Walton League, Florida League of Anglers, Florida Chapter of the Sierra Club, Florida Wildlife Federation, Organized Fishermen of Florida (OFF), the Southeastern Fisheries Association, and many local organizations petition all appropriate officials and agencies of government to commence repair of the Everglades system.

Effective repair requires restoration of sheet flow to the greatest possible extent from the Kissimmee Lakes to Florida Bay. Its purpose is to recover an array of vital natural resources now disappearing from the region – resources of extreme importance to present and future Floridians and to the nation at large. The present water management regime continues to diminish or degrade:

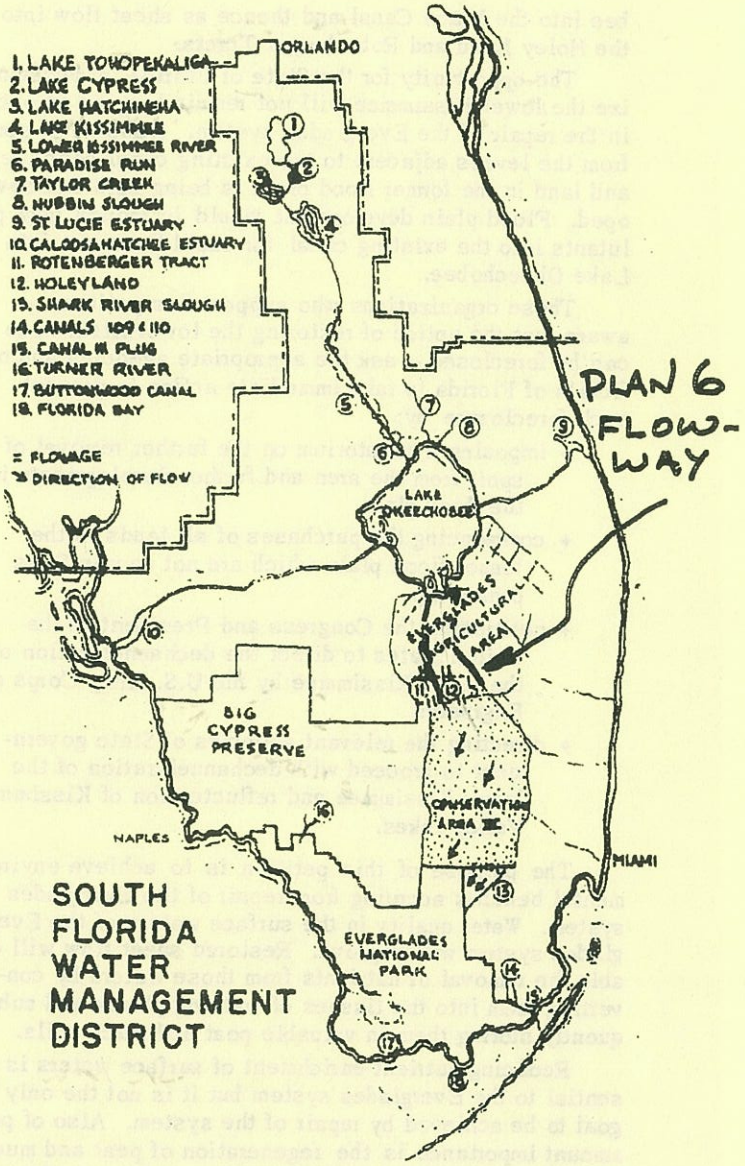
- drinking water supplies
- organic soils (peat and muck) throughout the system
- freshwater fisheries
- marine fisheries of the St. Lucie and Caloosahatchee Estuaries and Florida Bay
- waters of suitable quality for fish and wildlife
- wetlands
- Everglades National Park

Reparation of the system requires:

+ resolving the pollution problems of Lake Tohopekaliga, Taylor Creek, Nubbin Slough, the Everglades agricultural area, and Lake Okeechobee
+ refluctuating Lakes Cypress, Hatchineha, and Kissimmee to the greatest possible extent
+ dechannelizing the lower Kissimmee River and restoring Paradise Run
+ restoring sheet flow in the Holey Land and Rotenberger Tracts, Conservation Area Three, and Everglades National Park
+ reestablishing sheet flow connections between Area Three and the Big Cypress Preserve to the the west and the Shark River Slough to the south
+ refilling that portion of Canal 111 which lies under US Highway 1 and the existing portions of Canals 109 and 110
+ restoring the Turner River in the Big Cypress Fresh Water Preserve
+ plugging the Buttonwood Canal in Everglades National Park as authorized and funded by Congress

The Florida Legislature has correctly foreseen the need to repair the Everglades system by authorizing the dechannelization of the lower Kissimmee River. By its Act of 1976, the Legislature anticipated that restoration of the lower Kissimmee River would enhance water conservation, ground water supplies, wetland vegetation, energy conservation, conversion of nutrients (nitrogen and phosphorus) to peat and muck, low energy ranching, fresh water fisheries, and wildlife. Restoration of the lower Kissimmee River together with refluctuation of Lakes Hatchineha, Cypress, and Kissimmee would in addition provide the start of a long slow flow of the water in the system – water which could pass through Lake Okeecho-

(Continued on page 2)



+ Also known as "*The Marshall Plan*"

Stop pollution of Lake Tohopekaliga, Taylor Creek, and Nubbin Slough

Refluctuate Lakes Cypress, Hatchineha, and Kissimmee

Dechannelize lower Kissimmee River

Restore Paradise Run

Restore sheet flow in the Holey Land, Rotenberger Tract, Conservation Area III, and Everglades National Park

Reestablish sheet flow connections between Area III and Big Cypress Preserve and Area III and Shark River

Plug Canal 111 under US Highway 1

Refill Canals 109 and 110

Restore Turner River

Plug Buttonwood Canal

(AKA - THE MARSHALL PLAN)

(Continued from page 1) SEE P. 5

bee into the Miami Canal and thence as sheet flow into the Holey Land and Rotenberger Tracts.

The opportunity for the State of Florida to dechannelize the lower Kissimmee will not remain long as an option in the repair of the Everglades system. Removal of spoil from the levees adjacent to the existing canal continues, and land in the former flood plain is being sold and developed. Flood plain development would introduce new pollutants into the existing canal for rapid transport into Lake Okeechobee.

Those organizations who support this petition – aware that the option of restoring the lower Kissimmee can be foreclosed – ask the appropriate agencies and officials of Florida to take immediate action to prevent such foreclosure by:

+ imposing a moratorium on the further removal of spoil from the area and further developments in the flood plain
+ commencing the purchases of all lands in the former flood plain which are not now in State ownership
+ petitioning the Congress and President of the United States to direct the dechannelization of the lower Kissimmee by the U.S. Army Corps of Engineers
+ directing the relevant agencies of State government to proceed with dechannelization of the lower Kissimmee and refluctuation of Kissimmee Valley lakes.

The purpose of this petition is to achieve environmental benefits accruing from repair of the Everglades system. Water quality in the surface waters of the Everglades system will improve. Restored sheet flow will enable the removal of nutrients from those waters by converting them into the tissues of wetland plants and subsequently storing them in valuable peat and muck soils.

Reducing nutrient enrichment of surface waters is essential to the Everglades system but it is not the only goal to be achieved by repair of the system. Also of paramount importance is the regeneration of peat and muck, of fresh and saltwater fisheries, of wildlife, and of Everglades National Park. Florida's stance on nutrient pollution – as for example in Lake Okeechobee – should not simply center on how much enrichment the Lake can tolerate but rather on means through which we can convert some of those nutrients into vital environmental produ Rather than continuing to risk the accumulation of was materials in the Lake, we should be moving to derive valuable resources from them.

There will be benefits to fresh and saltwater fisheries, to wildlife, and to water quality. These translate into increased public health and improved recreational experience, protein foods for Floridians and their visitors, and profit for the tourist industry and fisheries, both recreational and commercial. There will also be benefits – little recognized – arising from increased energy efficiency.

Management of water in the Everglades, as established over many decades, has converted it from the solar-driven system it was to a highly intensive fossil-fuel system. This exchange drastically displaces the solar-drive processes which produce wetland vegetation, peat and muck, potable water, fish, and wildlife. The prime means through which solar energy activated the system to produce those essential resources was sheet flow – an essential function which has largely been lost. It is only necessary to reestablish sheet flow to regain solar energy products from the Everglades.

The goals of this coalition are entirely in accord with the expanded environmental responsibilities given to all water management districts by the 1972 Water Resources Act and to the South Florida Water Management District by the Kissimmee River Restoration Act of 1976.

COSTS OF DECHANNELIZATION

According to figures obtained from the South Flor... Water Management District, as well as private engineering firms, indications are that one-hundred percent spoil removal for complete dechannelization of the lower Kissimmee River would cost $16 million.

Much of the spoil has been sold and removed; therefore some portions of the channel would remain as lakes.

According to figures of the SFWMD, there are 41,470 acres in the original flood plain. Of this amount 14,060 acres are in public ownership, and 27,410 acres belong to the private sector. Because of periodic inundation of the flood plain, it would be necessary to purchase those lands not in public ownership. Based on an average of $600 per acre, it is estimated that the purchase of the flood plain would amount to $16,446,000.

TOTAL DECHANNELIZATION:

Spoil removal	$16,000,000
Flood plain acquisition	16,446,000
	$32,446,000

"Cost? Oh, my dear girl, the cost wouldn't be so great as the expense of allowing an increase of pollution in our fresh water. The costs of not doing it are monumental."

– Marjory Stoneman Dougla
in an interview by Georgia Tasker,
Miami Herald, March 8, 1981.

The Everglades, Lake Okeechobee, and Florida Bay are in trouble. We must restore historic water regimes as much as practical. An imperative first step is an immediate moratorium on flood plain development and removal of spoil material.

Florida Defenders of the Environment

We are disturbed with the degradation and loss of natural resources of the Everglades system – water, wildlife, freshwater and marine fisheries, and muck. We strongly support this proposal to repair the Everglades system.

Florida Wildlife Federation

HISTORY

In its pristine condition, the Everglades waterway arose in the lakes of the upper Kissimmee basin and flowed south via the meandering lower Kissimmee River to Lake Okeechobee. In some wet years, the lake overspilled its southern rim into the sawgrass Everglades, contributing to the shallow surface sheet flow accruing there from direct rainfall. Water slowly flowed southwestward over the Everglades marshes in the form of a very broad river as much as eight feet deep at summer flood, eventually emptying into Florida Bay.

As a result of drainage works, built over the last 90 years, the Everglades today is only one-half its original size and water levels in the remaining Glades have been lowered significantly. In the north, a canal now intercepts the Kissimmee River and sends augmented drainage waters rapidly and erratically to Lake Okeechobee. In the south, canals carry inland freshwater to tide.

The resulting loss of marsh habitat has severely depleted water fowl populations, and pollution and interruptions of water flow have diminished freshwater and marine fisheries. Instead of the gradual sheet flow upon which estuarine fisheries depend for nourishment and maintenance of vital salinity patterns, canals now deliver destructive sharp pulses of fresh waters increasingly polluted by agricultural and urban runoff. As canals lower the water table, the dried organic soils tend to "disappear into the air" under optimal conditions, and often burn down to bedrock during dry periods.

THE GREAT VALLEY

I sat upon my horse and looked from north to south on the west bank of the Kissimmee River, knowing that soon I, more than anyone else, would have the pleasures of knowing the good, the bad, and the beauty of this valley as it existed in those days.

For eight years I had the pleasure of working, gathering, and grazing cattle in this great valley, which was soon to be changed. The areas I knew were "Kisso" to the north, "Micco Bluff" to the south, and Fort Kissimmee in the center.

Once a year, we would join our neighbors and gather our stray cattle which had crossed the River to Duck Slough or had stopped mid-way on the Grassy Islands within the river. The cattle would be fat and the calves were always real good. We swam our horses from island to island until all cattle were retrieved and driven back home. We looked forward to this great venture each year.

The river, swollen by summer rains, would flood the original valley and then take the excess waters to Lake Okeechobee for storage and use during the dry months. This sheet flow of water brought new life to the valley by destroying the unwanted vegetation and restoring fresh grasses and new growth for the coming winter. This was nature's way of providing a suitable place for birds, wildlife, and even man, to thrive.

The Kissimmee Valley was fantastic country. It is hard for me to understand how man could have the audacity to think he could improve on the Kissimmee River and Valley by cutting the heart out of the river and replacing it with a canal.

–Bubba Mills, Hendry County rancher

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ART MARSHALL REPORT CARD

(Single EcoSystem Restoration PM)

AREA OF SHEET FLOW - NEW (t)

AREA OF SHEET FLOW - OLD (t)

> 1 = PROGRESS
< 1 = REGRESSION

It is with a strong sense of urgency that Florida Audubon Society requests all appropriate State and Federal officials and agencies to adopt and implement policies for the repair of the badly damaged Kissimmee/Lake Okeechobee/Everglades system.

At the heart of any such repair (or even lessening of the rate at which the system is degrading) is restoration of the lower Kissimmee River through dechannelization. It is late in the 11th hour for this restorative measure. Unless the state moves vigorously and promptly, removal of spoil from the levees, land sales, and development in the flood plain will foreclose this this vital measure. And, the flood plain development will inject massive new pollution into canal C-38 for rapid transport to the already strained Lake Okeechobee.

By emphasizing the timely urgency of the Kissimmee dechannelization, we do **not** imply the other measures are less important. An integrated system such as the Kissimmee/Okeechobee/Everglades requires multiple thoughtful, integrated action. It is not possible to "do only one thing" ... and have any hope of restoring a **system**.

Adopted by the Board of Directors, April 11, 1981

The unique features of Florida Bay offer angling experiences not known to exist anywhere else in the world.

Florida Bay makes up one-fourth of Everglades National Park. And at least two-thirds of this Park is a sea and coastal marine ecosystem influencing marine life throughout Florida's coast.

This marine ecosystem lies at the downstream end of the Everglades watershed and is dependent on the quantity and quality of fresh water supplied by natural events taking place in the northern reaches of the Everglades, Lake Okeechobee and the Kissimmee River Basin.

By reestablishing meandering rivers and surface water sheetflow, nature will again be responsible for the protection and rebuilding of the vast marine resources that made and make Florida Bay unique in all the world.

Everglades Protection Association, Inc.

We support dechannelization of the lower Kissimmee River. Dechannelization is a commitment to water quality and quantity for both the populace and environment of south Florida. Nothing short of dechannelizing C-38 will stem low land development in the lower Kissimmee River Basin. With development, the state's options for restoration of water quality, flood retention capacity and wildlife habitat, diminish rapidly while political pressure for "flood control" and channelization will increase exponentially.

Therefore, we support dechannelization as the most economically reasonable and pragmatic management technique which will assure increased water quality, flood capacity, and wildlife habitat.

Florida Chapter, The Sierra Club and Kissimmee River Restoration Coalition

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The channelization of the Kissimmee is an outstanding example of the frontier-hangover belief that natural areas are worthless unless used to produce products directly measurable in dollar values. Although we now know better, we still don't put dollar signs on good health, or clean water, or non-consumable plants and animals that are components of natural systems. It's only after all these good things are lost and we have to pay millions for substitute hardware and medicines that we come to realize that nature's free gifts were priceless, not worthless.

Florida Conservation Foundation (ENFO)

Implementation of this plan will ensure protection of humanity's greatest need for survival – good drinking water.

Florida Division, Izaak Walton League

It's about time we fixed the Everglades to save our water, our wildlife, our energy supplies, and ourselves.

Environmental Confederation of Southwest Florida

We urge total backfilling of the Kissimmee River and restoration of sheet flow through the Everglades – measures vital for the production of seafood and gamefish.

Florida League of Anglers

Please sign and return to ***The Friends of the Everglades, 3744 Stewart Ave., Coconut Grove, Florida 33133***

(We) endorse the Friends of the Everglades' petition to repair the Everglades system and urge that all recommendations be implemented forthwith. TO CEPP PROCESS:

ARTHUR R. MARSHALL FOUNDATION — 200

NAME OF INDIVIDUAL OR ORGANIZATION — (NUMBER OF MEMBERS)

1028 N. FEDERAL HIGHWAY, LAKE WORTH, FL

ADDRESS (Street, City, State, Zip)

J. Marshall, CHAIRMAN OF BOARD

SIGNATURE OF INDIVIDUAL OR PRESIDENT OF ORGANIZATION — DATE

STATEMENT TO

Governing Board
South Florida Water Management District

by

Arthur R. Marshall, Spokesman

for

The Coalition to Repair the Everglades System

[***The Marshall Plan*** goes to the South Florida Water Management District]

Marathon, Florida
June 11, 1981

My presence today is in a sense an extension of my remarks to your Shirt-Sleeve Symposium on November 20, last year.

But it is more than that.

I spoke then for myself.

Today I am speaking for the largest coalition of environmental organizations ever formed in Florida. The Coalition also includes organizations which are not primarily environmental and some which are not at all environmental. All of them share a common purpose which is to repair the Everglades System from the Kissimmee Lakes into Florida Bay.

May I first present to you Mrs. Marjory Stoneman Douglas who requested our inclusion on today's agenda. Mrs. Douglas is well known to you and to Florida. Marjory has asked me to present our petition.

Next I wish to present representatives of Friends of the Everglades, Florida Division, Izaak Walton League; Florida Chapter, the Sierra Club; Florida League of Anglers; Florida Wildlife Federation; Florida Audubon Society; Florida Defenders of the Environment; Florida Garden Clubs; Everglades Protection Association of the Florida Keys; Organized Fishermen of Florida; Southeastern Fisheries Association; Environmental Confederation of Southwest Florida; North Florida Environmental Coalition; and the Sport Fishing Guides Association of the Florida Keys. These people represent all of Florida's statewide environmental organizations, several regional organizations and one which is nation-wide. Never before have these people, who often differed strenuously, come together as a group. I would like for them to please rise.

Next I ask those persons to rise who represent local chapters of environmental and other organizations. To save time here, we will furnish later a list of their names and the organizations they represent.

If time allows, our members are available for questions.

We have invited Secretary Tschinkel of the Department of Environmental Regulation; Director Gissendanner of the Department of Natural Resources; and Director Brantly, of the Game and Fresh Water Fish Commission (or their representatives) to join us today. I would like to acknowledge and thank them for coming.

We are here because we know, like so many others know, that south Florida is under a worsening seige in its urban, agricultural and wild regions and that the problems of each are interrlated. We are not here to exclaim, complain, or defame. We are here to begin mustering in Florida the will and the ability to cope with the causes of our common apprehensions. Our ambitions are not to treat the symptoms of the region's ailments, but to get at their causes. Our confidence in the ability of state government to make the great step from symptoms to causes has been severely eroded. Further, if we the public are the cause of the problems as has often been said, then we must also provide the solutions.

This is the first stop in a series of petitions to government we plan to make in South Florida and in Tallahassee.

We have prepared and are distributing widely a brochure entitled "Repair the Everglades" which briefly explains our concerns; lists the membership of our Coalition to Repair the Everglades; gives our thoughts on how that can be done and lists benefits south Florida can derive from repair of the Everglades system. We have provided copies to your Director for each of you.

The South Florida Water Management District has an important role in the matter, but not only one. The District can deal with water management for varied purposes but it cannot deal single-handedly with issues such as: water pollution; highway or airport construction; fresh water or marine fisheries; the Everglades National Park; or with the overriding question of continuing growth and development in South Florida and its multiple and insatiable demands for resources. Yet all of these elements and many more are interrelated as recent events have shown.

The members of our coalition know that every action, every process, in a given life-support system affects every other part of that system. We are convinced that the well-being of city and wilderness in south Florida is unyieldingly inter-connected and inter-dependent. Nowhere in the nation is that inter-connection demonstrated more sharply than in south Florida.

A number of others have seen this.

In 1947, Col. Mason J. Young, Division Chief of the Corps of Engineers in Atlanta, wrote in regard to plans for the Central and South Florida Flood Control Project,: The District Engineer has not sufficiently emphasized the importance of water conservation in the Lake Okeechobee-Everglades and lower east coast areas, nor has he claimed full credits to be derived therefrom."

In 1971, the Director of your Engineering Department, Mr. William V. Storch, in reference to a needed state land use policy said to the Florida Atlantic Builders Association: "With the general objective of maintaining an acceptably healthy environment this policy, as I see it, will have its keystone the control of population through the control of land and related water use."

Then: "Why such a policy? Because it is just possible we may be approaching the point where our demands for water will exceed the supply which can be made available by environmentally, or ecologically, acceptable means.....When we are finally able....to store water in Lake Okeechobee at higher elevations than it is safe to do now, we will be in a position to relieve some of the strain. But it will not be enough. (Emphasis supplied).

Recent years have confirmed Bill's expectations. Lake Okeechobee - long regarded as south Florida's ultimate water reservior - fails now periodically to meet the combined needs of the cities, agriculture, Everglades National Park and the flows needed to keep salt water out of the Biscayne Aquifer of the Gold Coast. This predicament can only worsen as the demands of the cities and of the National Park increase in the future.

Bill said much more including this: "The direction in which Florida is going to move.....will be the result of State-made decisions rather than decisions of the Federal Government."

Bill's foresight is truly remarkable. The shift of responsibility from the federal government to the states is a hallmark of the Reagan administration.

These are the reasons we are here. To ask you, and later the Governor, Cabinet and Legislature, to set a new course for south Florida's future.

Other major institutions have lately aligned themselves with Bill's theses:

On April 28, 1981, the Miami Herald labeled 'unlimited water' as a mirage. And further: "....this environmentally fragile region has a definite "carrying capacity'....."

On May 7, the Herald said, "...fresh water is the vital limiter on south Florida's growth."

On May 16, the Palm Beach Post added: "There are limits to the number of human beings that can be supported in Southeast Florida and we may be fairly close to those limits." In November, 1972, Bill Storch tabbed the number for Palm Beach County as 700,000.

We have a lot of coping to do. There is so much to do and it is all so obstreperous - that the only reason for doing it is because we must.

Water is the major concern of our coalition. If Lake Okeechobee fails periodically to be adequate for all needs, what is to be done?

Knowing that rainfall and its retention are the only satisfactory sources of water in the Everglades system, we support the re-establishment of sheet flow in the basin to the greatest possible extent. We cannot ignore the efficiency of the pristine system which often extended the wet period in the Everglades for four months or more beyond the four or five months of the rainy season.

We are guardedly hopeful over possibilities for augmenting water supplies in the basin by reinforcing the rainfall cycle through reestablishment of sheet flow.

Dr. Patrick Gannon, meteorologist, has written of the positive effects of wetlands on rainfall in south Florida. Waters evaporated from the basin return to the basin in a form of natural recycling. In addition to this in-basin recycling, the moist air rising from the basin can trigger additional rain to fall from water laden oceanic air masses as they blow inland over south Florida.

There are observations elsewhere which support these views.

Sheet flow restored to the Kissimmee Basin by dechannelization of Canal 38 coupled with refluctuations of Lakes Cypress, Hatchineha and Kissimmee may be the most direct - of not the only - means of augmenting the effective storage capacity

of Lake Okeechobee. The River and its Lakes have the fortunate attribute of lying north of Lake Okeechobee. Their waters can only drain into Lake Okeechobee. Dechannelization of Canal 38 and refluctuation of the three lakes can raise ground and surface water levels which have been lowered in the basin; augment the rain-evaporation-rain cycle there and slow the river flow to Lake Okeechobee. Each of which would benefit the Lake.

Water quality improvement is not the only issue relative to dechannelization of the lower Kissimmee as the Legislature indicated in its Kissimmee River Restoration Act of 1976. We are overdue on assessing the 'seek-tos' of that Act - six of which were for purposes other than water quality. The author of the bill goofed when he separated water quality from the 'seek-tos' for special emphasis. That author was me.

We believe it is time to stop thinking only of the pollutants of the lower Kissimmee - which some regard as unimportant - and to think of the water which it can have - which is important to us all.

Restoration of sheet flow in the Kissimmee is the way to resume the long slow flow into Okeechobee and thence into the sawgrass Everglades. The natural slow flow down the Kissimmee was undoubtedly an integral part of the PROCESS which created the great muck delta now comprising the Everglades farming area. Resumption of that flow as I described in my 'shirt-sleeve' talk also offers us an opportunity to use the nitrogen-phosphorus load in Okeechobee to create muck - an advantageous use of materials which are commonly regarded as wastes in the great Lake.

There is also a social benefit to restoring the lower Kissimee which I am constrained to mention. Those of us who had the displeasure of helping to pay for a ditch we didn't want would regard as a modest return on our investment the pleasure of helping pay to restore a river which we do want.

Water is the dominant resource issue in the Everglades system. But there are other resource issues. In troubled south Florida resources are the dominant issue. Too few resources demanded by too many people. This is true in the nation and in the world.

Improved water quality; restoration of wetlands; the regeneration of peat and muck; expanded populations of fresh water fishes throughout the system and of marine fishes in the St. Lucie and Caloosahatchee Estuaries and in Florida Bay; the provision of more adequate flows to Everglades National Park - are other resource issues of importance to our Coalition and to south Florida at large. Improvement of these resources will provide food for people and wildlife, expanded bases for recreation; and economic benefits to the tourist industry, the commercial and sport fisheries industry and to south Florida at large.

I don't need to tire you with recitations on these matters. They were all covered in my talk to the 'Shirt-Sleeve Symposium' and are summarized in our Brochure. Beyond that they are easily, almost automatically, accomplishable.

All of them will be improved if sheet flow is restored in the Everglades System.

Members of our Coalition have given careful thought to the predicaments of the Everglades and what might be done about them. These are our thoughts:

1) There are both physical and functional limits to the resources of the Everglades and we must live with both. There is only so much land; so much water; so much muck. There is only so much rainfall; so much water to be recycled; so much pollutant assimilative capacity in its waters.

2) Our prime concern with the system has to be centered on PROCESSES - functional ecologic processes. We have to be much more concerned with them than with the crisis of the moment. We have to care where we are but we must have infinite care about where we are going.

3) Our possible choices of action are:

a) Leave everything the way it is. This is not a viable option. Water quality is worsening; the muck is disappearing; water demands are increasing.

b) Increase demands on the system. This can occur in the East Everglades; the jetport site; wetland developments in Broward and Dade Counties and in the lower Kissimmee basin; and in the Hendry County Canal which is planned. These can only make bad things worse.

c) Take actions to reverse the degrading processes which are operating - or at least to lessen their severity.

I narrow now to our specific petitions to this Board:

1) Maintain the concept of the 'Shirt-Sleeve Symposium' as a continuing means of assessing water management in the Everglades system. We all know that we need lots of heads working together; freely interchanging ideas and learning about each other. The kinds of creative thinking which we all need will result from that effort with the single proviso that there be no boss - only a person to serve as a facilatator of the symposium's investigations and deliberations.

2) We ask this Board to assess the features of the Marshall Plan. Ideas suggested by members of your staff and of the staffs of the other agencies should certainly be included in that assessment. Those actions which are determined to improve and expand sheet flow over broader areas should be implemented as rapidly as possible.

3) Assist and support Everglades National Park and its efforts to reestablish sheet flow in Shark Slough, block the Buttonwood Canal, and to restore the Turner River - all of which have the potential of reducing rapid loss of fresh water to tide.

4) Continue to work with the National Park in its program of modelling the water needs of the Park.

5) Do not construct the Hendry County Canal as now planned. The project should be re-examined in light of the recent water shortage and in terms of its ultimate effect on sheet flow in the basin of the Everglades.

6) Use your authority to prevent further encroachments on water resources in Broward and Dade Counties and in the Lower Kissimmee Basin.

7) Assess the potential rain-cycle issue for augmenting water supplies.

8) Adopt a position for restoration of the Lower Kissimmee River and refluction of the three lower lakes. We are aware that Florida's agencies have preferred to await the decision of the Corps of Engineers on this matter. As Bill Storch said this should be a decision made by Florida. Just as the decision to channelize was made by Florida - and then submitted to the Corps for action - the decision to restore should be made by Florida - and then submitted to the Corps for action. And there is no reason we must necessarily agree with the Corps on the course to take.

9) Take actions to prevent further encroachments on the lower Kissimmee floodplain which may prevent the accomplishment of whatever plan of restoration is finally adopted. Sand is being hauled away from the levees and house construction has begun in the flood plain. The Board, in conjunction with the State, can declare a moratorium on such activities; begin purchase of the flood plain and announce its intended plans for the future of the basin.

We thank you for listening. We know the burden is not light - just as the burdens on the Everglades and all south Florida are not light. The time has come for Florida to make a choice - whether the Everglades is to survive as a productive and beautiful life system in south Florida.

Some things we have discussed are regarded by many as ordinary, but which are extraordinarily important for all of us.

Please call on us if you wish.