

# ISSUES RELATING TO THE EVERGLADES ECOSYSTEM

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## OVERSIGHT HEARING

BEFORE THE

SUBCOMMITTEE ON NATIONAL PARKS, FORESTS  
AND PUBLIC LANDS

OF THE

COMMITTEE ON

NATURAL RESOURCES

HOUSE OF REPRESENTATIVES

ONE HUNDRED THIRD CONGRESS

SECOND SESSION

ON

THE LAND USE POLICIES OF SOUTH FLORIDA WITH A  
FOCUS ON PUBLIC LANDS AND WHAT IMPACT THESE  
POLICIES ARE HAVING

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JUNE 23, 1994—WASHINGTON, DC

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# ISSUES RELATING TO THE EVERGLADES ECOSYSTEM

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THURSDAY, JUNE 23, 1994

U.S. HOUSE OF REPRESENTATIVES, SUBCOMMITTEE ON  
NATIONAL PARKS, FORESTS AND PUBLIC LANDS, COM-  
MITTEE ON NATURAL RESOURCES,

*Washington, DC.*

The Subcommittee met at 10:05 a.m., in room 340 of the Cannon House Office Building, the Honorable Bruce Vento (Chairman of the Subcommittee) presiding.

## STATEMENT OF HON. BRUCE F. VENTO, A U.S. REPRESENTATIVE FROM MINNESOTA, AND CHAIRMAN, SUBCOMMITTEE ON NATIONAL PARKS, FORESTS AND PUBLIC LANDS

Mr. VENTO. The Subcommittee on National Parks, Forests and Public Lands will be in order.

This morning, we're meeting on a topic of intense interest to the Committee. Over the course of the years that I've worked with the Subcommittee, as both Chairman and member, we have taken a very active interest in the land use policies of south Florida, specifically, of course, with a focus on the public lands and what the impact is. But it's become readily apparent that the efforts to in fact preserve and accomplish the goals and the organic laws dealing with the parks and the wildlife refuges are inextricably tied to the entire landscape policies of south Florida, which of course involves the state and numerous Federal departments and agencies.

The progress that has been made in the past decade is impressive, but I think there's a lot more in hope often than is sometimes able to be accomplished on the grounds.

Things never happen fast enough for me. And I expect that most of us have, and most of the residents of south Florida and the Nation have a short time horizon in terms of accomplishing the goals of providing the protection and the new policy path. We'd like to see things happen much quicker.

But this obviously didn't happen overnight. It's not going to be resolved overnight.

But we have such a wealth of resources and a significant population in the area that the demands from agriculture and others are such that it simply is an area that should be, and has happily become, a priority of the new Administration and the Congress.

We look forward to working, obviously, in concert with the Administration and all those on a bipartisan basis that are interested in this. We have had bipartisan support from the onset with regards to dealing with many of the problems, as is demonstrated by

the lawsuits that have been addressed and brought into focus. This support has forced some of the policy changes, the consistent support from the delegation on a bipartisan basis, and the response in Congress, largely, on that basis.

I don't think anything less would work. The state has put forth considerable effort. It has tried to organize itself. In fact, they've got some of the best limnologists in the world in Florida.

I know that some came from the University of Minnesota, so I know that they were pretty good when they were there. And I expect their skills were taxed as they tried to deal with the issues.

I know that we have some of the most outstanding professional leaders like Dick Ring and his predecessors working at the Everglades as an example in my limited knowledge of those working in these areas.

We are very proud of the work they do. They represent the best of the park service and we want to give them the support that they need to accomplish the task. And while I don't know the other agencies and department members as well, it's clear to me that they have become well known and respected for the work they're doing, like Col. Salt and his special assignment that he's now taking on.

It's clear to me that that's been happening.

We have passed numerous legislative measures, unfortunately, not a panacea, in expanding the Everglades, expanding Big Cypress, taking advantage of road changes and using that as the basis to expand again some of these areas. Small modifications like the ones that occurred last year in reprogramming some of the funds that I mentioned, such as the expansion act that occurred in 1989, the ramifications of it.

So the Subcommittee, along with its associated subcommittees in Congress, have been actively involved.

Today, really, is to try to keep pace with what the current status is and what recommendations are going to be before us in the near future. Also, we must gauge the actions of the state legislature and the response of the state and the national agencies to those new initiatives and to those challenges, and of course, the legal background in which we're trying to march forward and eliminate the confrontation and develop a collaboration and cooperation with the goal of really reclaiming and restoring the type of ecosystem integrity that's necessary and desirable.

I think, in the end, the agricultural economy, the tourism, and the many natural resources which we have responsibility as stewards to protect, will be served well by that collaboration.

At least that's the hope. I think it can happen.

I know the intentions of those involved are, by and large, forthright, and I hope that we can certainly do that today.

So in the hearing, I look forward to today to catch up a little on this. I'll put, without objection, my statement and the other opening statements of all members, in addition to what we might have said, in the record.

[The prepared statement of Mr. Vento follows:]

STATEMENT OF HON. BRUCE F. VENTO, A U.S. REPRESENTATIVE FROM MINNESOTA,  
AND CHAIRMAN, SUBCOMMITTEE ON NATIONAL PARKS, FORESTS AND PUBLIC LANDS

The Subcommittee will come to order. Today, we are focusing on the Everglades ecosystem in Florida, in particular the status of multi-agency efforts to address the significant stresses on the area. We will hear from five of the departments or agencies which administer the Everglades National Park and Everglades related projects and land management areas, and I hope to have a full discussion of the continuing problems and potential solutions.

This is an important issue, especially for those concerned about the preservation and protection of one of our most unique and fragile ecosystems. The Everglades represent a scenic, diverse and complex environment worthy of protection. It is a rich and varied ecosystem containing unique biodiversity, but it is also an area where man has exacted a price, applying extreme pressure on the resources to derive a livelihood.

Sadly, this intricate ecosystem is under serious stress and decline. Water quantity, quality and distribution continue to be most pressing issues. Farm and sewage runoff, nutrient loading, the presence of non-indigenous species, and natural phenomena such as hurricanes continue to impact the ecosystem. Natural cycles as the drought of the late 1980's and reduced fresh water flows to Florida Bay through the Everglades has markedly increased the area's salinity.

The formation of an interagency task force; the efforts to reach agreement between the sugarcane growers and the State and Federal governments; the U.S. Army Corps of Engineers Hydrological Restoration Projects in Shark River Slough, Taylor Slough and the C-111 Basin, and the plans for further land acquisition are all steps in the right direction toward addressing the water needs of the Everglades ecosystem.

I have visited this area several times—just last summer the Committee on Natural Resources held a hearing in the Florida Keys to learn about the particular problems of Florida Bay—and I have been strongly supportive of legislation providing for expansion and improvements in Everglades National Park. Americans will not and cannot afford to allow this irreplaceable resource to continue its devastating path of decline.

The many Federal and State agencies involved in the management of the area must expend more than good intentions and isolated pieces of policy or law to address the profound deterioration of the Florida ecosystem. The mechanism has been established for a coordinated, comprehensive effort to address each element necessary to restore the Everglades as a rich, healthy and productive resource. The agencies involved and responsible for the varied projects must work together to maximize their efforts and contributions to the renewal of the Florida Everglades ecosystem.

National policy and law must intersect in the enactment of authorization and funding for necessary and variable projects and in the denial of counter-productive initiatives. We in Congress must insist on progressive and scientifically sound management practices so that potential future losses cannot nullify the positive accomplishments. We must agree to build upon this opportunity to make important, lasting improvements. I hope this hearing will provide a positive public and congressional focus on the efforts to rejuvenate the Everglades ecosystem.

The Members of the Florida Delegation have been particularly diligent in working together to secure funding and authorization for projects to improve the ecosystem, and I am pleased to note Representatives Deutsch and Shaw in attendance today.

I would like to welcome all the witnesses.

Mr. VENTO. Congressman Smith, did you have any words of wisdom to guide us this morning?

We're pleased to see you here, friend.

Mr. SMITH. Thank you, Mr. Chairman. Not this early.

Mr. VENTO. The smoking lamp is lit down at the corner.

[Laughter.]

We're very pleased to welcome a couple of our colleagues—Clay Shaw—I didn't see Clay this morning. He's there. We're pleased to see you, Clay. And Peter Deutsch, who is from the 20th District.

I'd invite you both to the witness table and to join us at the dias after you complete your statements.

Without objection, all of the statements of the witnesses, as I said, will be made part of the record in their entirety. I especially look to the department and agency witnesses, whose statements I read mostly last night. They're very good, and I think you can probably summarize them when we get to them, if you would.

Gentlemen, I don't know that I'd seen both of your statements, but Congressman Clay, we invite you as a senior member and long-time participant in this discussion and debate, to lead off this morning.

Welcome.

**STATEMENT OF THE HON. E. CLAY SHAW, JR., A U.S.  
REPRESENTATIVE FROM FLORIDA**

Mr. SHAW. Thank you, Mr. Chairman.

I know Peter and I feel that we're very much among friends here this morning.

This Committee, and you, Mr. Chairman, have been particularly attentive to educating yourself and then reacting to the problems which we've learned about regarding the Everglades.

I particularly liked your opening statement where you referred to our stewardship, because that is exactly what we're talking about.

This isn't a bright new fire engine or a bright new public works project that we're trying to bring to south Florida. We are trying to restore a very valuable asset, as stewards, to as close to its original condition as we can.

There are many villains in the story of what's happened to the Everglades. I guess every family that has moved to south Florida has helped create the problem by population and the demands on the water supply. Every farmer who has turned a hoe up at the northern end, the run-off of which has come down into the Everglades, has created part of the problem.

We, the Federal Government, probably are the biggest villain of all, having created, albeit, through nothing but good thoughts and thinking that we were doing well by draining the swamps. We are the biggest villain of all, and this is what I think this Congress needs to turn its attention to.

The appropriations committee this year has been very, very kind to us and very responsible, I feel, in the appropriations thus far that have made its way through the House.

I also have to say that the Administration and the Department of the Interior have also been extraordinarily helpful in turning its attention to the problems of the Everglades.

In addition, I think that the emphasis and concern that is being expressed is also very apparent by the appointment of Col. Salt, who has been tremendously helpful to us in Florida in his former role, and particularly now that he is becoming intensely interested in specializing in the Everglades.

This is going to be a tremendous step forward for all of us.

I do have a full statement that I would ask to put into the record and just would like to comment on just a couple of things.

All members—now that I've told you all of the good things that this Committee has done, there is a question as to the acquisition of additional land that is going to be necessary in order to carry our work forward.

There was some \$4.8 million that was needed for the acquisition of land down at the southeast end of the Everglades. That land is going to be necessary for us to eventually flood that land if we're going to reroute the water supplies and try to restore as much of the original sheathflow back to the Everglades as we possibly can.

As you well know, Mr. Chairman, from the time that you spent down in the Everglades, that the Florida Bay is really our immediate concern because it's dying as a result of all the other problems that have been created north of it in the Everglades.

Until we restore much of the original sheathflow, we're going to have high degrees of salinity. The grass kill-off will continue and eventually destroy the fish and marine life down in the Florida Bay area, which lies in Peter Deutsch's district.

Restoration of sheathflow is critical to all of south Florida and to the marine population throughout that area.

One other point that I do want to touch on which will be coming up, hopefully in an appropriations bill, is the funds that are necessary to complete the construction of the quarantine facility that needs to be in place in order to do experimentation on the eradication of the Melaleuca.

You well know, but for the benefit of other members of the Committee who may not have been to south Florida, the Melaleuca is a noxious weed. We had it classified as the only noxious weed that I think has been so classified for the last 14, 15 years.

Thus, by having it on the noxious weed list, we're recognizing the destructive quality of it.

It's to the Everglades what Kudzu is to the southeast. It's growing out of control. It uses up an extraordinary amount of water. It's an exotic that was brought in from Australia for two reasons. It was thought to be a great ornamental. And it was also thought to be a wonderful tree in which to absorb the water because of its tremendous capacity to take the water out of the ground.

That has become the problem now. It thrives in the Everglades and it's taking over many, many square miles of the Everglades.

We need the additional \$3 million in order to complete that facility. It was originally estimated that the total bill would be \$2 million, but that has been expanded now to \$4 million. One million has been appropriated and the development and design has gone forward.

This is being done in cooperation with the University of Florida which is donating the land for the much-needed facility.

Thank you, Mr. Chairman.

Mr. VENTO. Thank you very much, Clay.

Let me invite Peter Deutsch to make his statement. Then perhaps we'll have some dialog between the members and yourselves.

Peter?

[The prepared statement of Representative Shaw follows:]

STATEMENT OF HON. E. CLAY SHAW, A U.S. REPRESENTATIVE FROM FLORIDA

Mr. Chairman, I appreciate the opportunity to testify before you and the Subcommittee to restate my concern with the Everglades ecosystem.

As you know, I have long been interested in the environmental health of the Everglades. I have and will continue to support appropriate efforts that are committed to protecting and enhancing the remaining 17,000 square miles that comprise this ecosystem.

The ecosystem has been severely impacted by hydrologic changes resulting from the Central and South Florida Flood Control Project, agricultural growth, and urban development. Because of such pressures and the resulting impact on water quality, quantity, and delivery, the Everglades are now less than half of their original size, invasive non-native plant species dominate and alter the landscape, wading birds have declined by more than 90 percent, and the Florida Bay is experiencing severe declines in marine life.

I am very pleased with the \$45.9 million that is included in the House-passed Interior Appropriations bill for South Florida Ecosystem Management. This allocation is desperately needed for ecosystem research and management, improved water quality and quantity studies, continued construction of improved water delivery systems to simulate more natural water flows, and other park operational requirements in the region.

However, I am concerned with the deletion of the \$4.8 million that was included in the President's budget for the land acquisition grant. I know that this project is not currently authorized. However, this initiative is important because it includes a partnership arrangement with the State of Florida by including grant funds for a portion of the State's purchase of several tracts adjacent to Everglades National Park. This will provide both a buffer and transition between park resources and the agricultural and urban areas adjacent to the park and facilitate more natural flows to Florida Bay. I look forward to working with the Subcommittee on this significant initiative.

I would also like to express my concern with another problem in Florida that is literally growing every day. I am referring to the noxious weed *Melaleuca* (*Melaleuca quinquenervia*), which is changing the fragile ecosystem in and around the Everglades National Park to the detriment of our water supply.

Mr. Chairman, I have been actively involved with the *Melaleuca* issue, since 1989. I have attached this problem on many fronts, and progress had been made. Most notably, I am pleased to report to the Subcommittee that after over two years of negotiations with the USDA, my request to add *Melaleuca* to the Federal Noxious Weed List was approved on March 13, 1992. I was supported in this effort by the entire Florida delegation and numerous environmental and governmental groups in Florida. *Melaleuca* was the first such weed in at least 12 years to be designated a federal noxious aquatic weed. While I am pleased that *Melaleuca* is now recognized by the federal government as a threat to Florida's native ecosystems, we in Congress must continue to assist in this battle however we can.

Predictions of the spread of *Melaleuca* indicate that over 50 percent of the Everglades' wetlands would be infested by the end of the century. Officials from the Everglades National Park and the South Florida Water Management District have informed me that Florida loses an estimated 52 acres a day to *Melaleuca*.

I have consistently supported efforts to increase funding for *Melaleuca* research. Additionally, I have been working to obtain \$4 million for a *Melaleuca* bio-control quarantine facility to be located in Davie, Florida.

Although classical bio-control is not widely known to the general public, it is being used on an ever-widening basis to control exotic plant pests. The Army Corps of Engineers already spends millions of dollars each year on the removal of exotic aquatic plants in Florida. Hopefully this expenditure can someday safely be reduced when bio-control agents fully take effect.

A \$1 million appropriation for the *Melaleuca* quarantine facility was included in the FY 1994 Energy and Water appropriations bill. However, I am seeking the remaining \$3 million authorization and appropriation for the needed project. The Army Corps of Engineers and the Department of Agriculture are currently in the process of issuing a Memorandum of Understanding, which is expected to be completed within the next two weeks. This document clarifies the responsibilities of each agency in regard to the facility. It is my hope that the Water Resources Development Act of 1994 will be the legislative vehicle to obtain this funding.

I hope this Subcommittee recognizes the seriousness of the *Melaleuca* and I look forward to working with the Subcommittee to combat this invasive pest.

In closing, I would like to thank you, Mr. Chairman, for allowing me the opportunity to testify before this Subcommittee on Everglades, Florida's most precious natural resource. I hope the Subcommittee continues to recognize the problems facing the Everglades, and allocates appropriate funding for this fragile ecosystem in the future appropriations bills.

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**STATEMENT OF THE HON. PETER DEUTSCH, A U.S.  
REPRESENTATIVE FROM FLORIDA**

Mr. DEUTSCH. Thank you, Mr. Chairman. And I too have a statement that I'll submit for the record.

I also want to join my colleague in thanking you and the Committee in terms of your interest and involvement on this issue.

On a personal basis, I can't think of anything more important that I can be involved in in my career in the United States Congress than a successful restoration of the Florida Everglades and Florida Bay. And I know that you share, and I know the members of this Committee, and I know of my colleague from south Florida shares that as a belief and a desire as well.

I also want to really thank Congressman Shaw, who is really the dean of the south Florida delegation and really the person who has taken the lead on this for a number of years before I arrived in Congress, which is clearly a bipartisan effort throughout the entire State of Florida.

Clay, when he was talking about some of the, I guess, causes has a unique perspective in that he is one of the—I guess south of where he lives, he's the only native of Florida. So he can personally speak of times when some of those problems didn't exist.

For those of us who had the good fortune of moving to Florida after that, as five of the members of Congress south of where he lives, we've grown to appreciate it hopefully as much as he has.

I'd like to focus just for a couple of seconds on really a couple of issues.

The first is some of the programs that this Committee and the Congress has initiated and need to be initiated, some of the dollar amounts that Clay has just talked about and really that the Administration has set up in their proposal, and really has highlighted this as one of the only initiatives in the Interior budget of the President, are in the dollar range of tens of millions of dollars.

I think that what we need to focus on is if we don't spend this money, I believe it's an overdetermined outcome that we will be talking about spending hundreds of millions of dollars to restoration in several years.

I think that we can just look at what's going on in the northwest to really highlight when we have the opportunity. Clearly, degradation has gone on. Clearly, we have a perception of what we can do to stop and reverse that degradation. And there are lots of reasons to believe that a lot of progress is being taken, both through our actions, the Corps of Engineers through our direction as well.

But the specific things that Clay has mentioned I think need to obviously be done this year and continue on to the next year.

Another thing that I'd like to focus in on is a CRS report that just came out last week at the request that I made just talking about specifically the economic impacts of changes in the environmental conditions on Florida Bay.

This is not by any means the most significant reason that we should be concerned about the Everglades ecosystem. But I think what this report does in quantitative terms is talk about some of the specific economic effects about the degradation that has already occurred.

Florida Bay's 83,000 acres of dead seagrass have developed a 550-square mile algaebloom. Specifically, there's been a decline since '87 of ten percent of employment in the fishing sector. The actual income production has decreased by 50 percent. 1400 jobs and \$11 million in annual personal income is threatened by the algaebloom.

The potential adverse effect in terms of the tourism industry is also incredibly dramatic—5000 potential jobs lost, \$75 million in annual personal income lost in various sectors.

When we put this in comparison to any other economic effect, a \$75 million a year annual potential loss, it's obviously a dramatic potential economic loss.

But let me talk just in terms of the human loss and the environmental loss.

As Clay mentioned, we truly are the stewards of the Everglades in the Florida Bay, both in a figurative sense and a literal sense.

Florida Bay, 95 percent of it is within the boundaries of Everglades National Park. We as Americans own Florida Bay and it's being destroyed on a daily basis. We're doing some positive things to stop that destruction, some dramatic things.

The trendline has changed somewhat, but we need to do more.

It is our legacy as Americans, not just as South Floridians. Hopefully, everyone on the Committee has spent time on the bay. I was on a boat with the Chairman not that long ago, and just to get a sense that it is a national treasure. It's an international treasure.

I always think that what was going on in the Grand Canyon was going on in the Florida Bay, Congress would not be slow to act and would not be slow to spend tens of millions of dollars.

I believe it's accurate to say that the Everglades system and the Everglades park and Florida Bay is truly the Grand Canyon in no less sense of the words.

I appreciate the work of this Committee to really try to restore the situation to where it needs to be.

Mr. Chairman, I know your staff has this, but as part of the record—

Mr. VENTO. No. I think that, without objection, it's 19 pages in length. Without objection, we'll make it part of the record.

Hearing no objection, so ordered.

Peter, does that conclude your remarks?

Mr. DEUTSCH. Thank you.

[The prepared statement of Mr. Deutsch follows:]

STATEMENT OF HON. PETER DEUTSCH, A U.S. REPRESENTATIVE FROM FLORIDA

Good morning, Mr. Chairman.

First, I would like to publicly convey my appreciation for your personal interest in the Everglades and the entire south Florida ecosystem. Your continued leadership in this area will be critical to the success of Congressional efforts to restore the Everglades.

As you are aware, I represent the citizens of Florida's Twentieth Congressional District. This district includes much of the Southern portion of the Everglades ecosystem, including all of Everglades National Park, Florida Bay, and the only living coral reef in the continental United States.

You are already aware of some of problems facing the Everglades ecosystem. Of particular concern to my constituents is the ecological collapse of Florida Bay. Florida Bay, the terminus of the Everglades ecosystem, is chocking with 83,000 acres of dead seagrasses and a 550 square-mile algae bloom. The rapid deterioration of

Florida Bay and surrounding waters threatens the region's tourism and fisheries-based economy.

Today I would like to summarize for you some of the findings of a report for Congress just released by the Congressional Research Service. This report documents the economic impacts that have been observed as a result of the problems in Florida Bay and forecasts the future consequences of continued ecological declines.

The first declines we have observed are in the commercial fishing industry. Three major shellfish species dominate commercial landings in Monroe County: spiny lobster, pink shrimp, and stone crabs. Since the seagrass dieoff began in 1987, employment in the fishing sector has declined by about 10 percent and personal income has declined more than 50 percent. Some 1,400 jobs and \$11 million in annual personal income are threatened by the algae blooms and seagrass dieoff in Florida Bay.

Tourism comprises approximately one quarter of the Monroe County economy. To date, declines in area tourism have not yet been observed. However, the declines in fisheries we are now witnessing foreshadow possible future declines in tourism. Keys tourism depends on clean and clear water for recreational activities including swimming, diving, and fishing. The Congressional Research Service predicts that, over time, a loss of a quarter of tourism and seasonal residents is possible. All in all, the report predicts that continued degradation of Florida Bay could result in 5,000 lost jobs and \$75 million in lost annual personal income in various sectors.

I would like to emphasize that economic considerations should not be the primary motivating factor in considering proposals to restore the Everglades or other ecosystems. However, I do believe that some discussion of economic consequences is relevant in justifying the costs of restoration. Moreover, economic data illustrates the point that we need to invest in restoring the Everglades ecosystem now—in order to avert future losses.

The Department of the Interior has identified restoration of the Everglades ecosystem as one of its top priorities. The Corps of Engineers has undertaken a comprehensive re-design of the water control works that supply water to the Everglades and Florida Bay. I would like to emphasize that restoration efforts are not limited to federal agencies. Rather, the Everglades has been the focal point of an unprecedented collaborative initiative which includes State and local governments, as well as agriculture.

I hope you will agree that Congress needs to continue and augment federal participation in Everglades restoration efforts. Hopefully, restoration of the Everglades can serve as a model for understanding how humans can live in harmony with the natural environment. I look forward to working with you toward realizing my goal of restoring the Everglades ecosystem.

Mr. VENTO. I was listening. Clay, at first I thought when you said that everyone that had moved to Florida, and I thought pretty soon we were going to get to everyone that's had a glass of orange juice.

[Laughter.]

Mr. SHAW. I don't want to take everyone on at one time.

Mr. VENTO. No, that's right. It's getting to be a pretty controversial drink, anyway, these days.

[Laughter.]

In any case, I do think that there is an appreciation on the Committee to try and respond. In fact episodes with the Grand Canyon in terms of the Navajo Generating Station were exactly pointed out and finally a response was generated.

I think the magnitude of what is occurring here is astonishing. It may be simplistically very flat in terms of the area, but the complexity then of trying to put it all together, the human use factors etc. that are influencing it, have become much more complex.

And obviously, the focus continues to change as we learn or gain new information and data. That's one of the frustrations, I think, that we feel that maybe the policy is correct and you deal with the information you have and the politics of that.

Pretty soon, you find that you have to do more because of the issues involved. I'm sure it sometimes appears that we don't have

adequate information or that we're operating on less than a consistent policy path.

But we'll make this part of the record. I was looking at the summary that Amy Holly of my staff had worked on. It talked about the fact that you're able to demonstrate the fin and shell fishery impacts, but not the tourism.

There's constantly this drumbeat for economic information with regards to what's happening in an area, in a park or in an estuary.

The problem is, of course, that the more you get into this information, it's very difficult, and I'm sure some of it becomes debatable.

But I think we need to encourage more economic feedback because I think in the end, it will support the better decisions concerning this and some that I think tend to lean toward maybe the values that I try to profess.

As an example, we were debating the Endangered Species Act yesterday. Laura in OTA did some work on nonindigenous species like the Melaleuca. Except we're dealing with agriculture.

They pointed out that nearly a billion dollars a year is lost just looking at 79 species during this century, and future losses within the next decade would be at \$134 billion.

Those are the types of losses that occur in terms of lost crops and so forth because of the lack of information or control of these nonindigenous types of species, which is, of course, very evident here in Florida to most of us who have looked at the Melaleuca and the Brazilian Pepper and other types of plants that have occurred there.

I guess the question is, Peter, you were saying that this would be an important work in the first two years.

I'd suggest to you, if you talk to your predecessor, Mr. Fascell, that he'll tell you you'll be working on this for a long time. He had obviously a great record. He was a wonderful friend of the Committee and served as chairman of the Foreign Affairs Committee and did a great job in terms of this issue.

He was very close to it, as I'm sure that you're going to be, trying to represent the concerns and the disagreements.

Just a question, I guess, Peter, and Clay, maybe you want to comment on this, too.

Everglades Forever is the act that was passed by the legislature. I think I've got the name right. How is that being accepted in the district?

Mr. DEUTSCH. The perception I have is the debate that went on, the friends of the perfect are the enemy of the good.

I think the legislature worked on a compromise which it really dealt with the lawsuit in terms of, really, the sugar industry. And the perception that I have is—and I believe this to be very accurate—even if the government won the lawsuit, what they would have won in the lawsuit, and there was a question whether or not they would have won the lawsuit, is less than what they won by settlement, which was essentially implemented through the legislation.

So I didn't have the opportunity to vote on the issue, but I think that there are those that feel that it was not enough, that it was a compromise that should not have been made. But the perspective

that I have is, even at its worst, with government spending hundreds of millions of dollars, and I think that's what's important, is that this is not a Federal initiative only.

The State of Florida has come up to the plate, the county governments come up to the plate, the water management district has come up to the plate. I don't know if they're testifying, but the water management district is here that have done a self-imposed property tax for land purchases.

All of the acquisition issues that we've talked about, we've never asked for more than 25 percent from the Federal Government. My sense of Congress is that that's pretty unusual to really be asking for only that amount of money.

So I think it is a step in the right direction. It's going to do specific things that, based on the best science, will increase water flow, will deal with quality of water issues, and will deal with seasonal adjustments.

The best science is really saying those are the most significant things to do.

Mr. VENTO. Clay, did you have any comments on that?

Mr. SHAW. Just briefly. It's terribly, I think, unfair to sit here and second-guess the attorneys that were involved in the lawsuit and made the settlement and the practical effect that they claim that they achieved by settling rather than going ahead.

It would, however, be a mistake to say that justice was served because justice was not served. You have the taxpayers of Florida, through the south Florida water management district, picking up the tab for some pollution that was done mainly by big sugar, but also the problem was shared by the agricultural industries.

If that land should go to vegetable farming, perhaps the pollution would even be worse because of the more intensive fertilizing that's necessary.

If the truth be known, agriculture just shouldn't be up there draining down into the Everglades. But it can also be argued that people should perhaps not be living where my house is in Fort Lauderdale.

So we've got to operate in the real world and try to accommodate what has happened as practically as we can within a minimal disruption of jobs and of lives.

To be honest with you, I feel that some type of an emergency injunction or some type of relief should have been accorded by the courts to have stopped the pollution so that the lawsuit should have moved forward and gone to a final stage.

It shows that the system is flawed when we find that an unfair settlement has to be reached, which is certainly lopsided in justice in order for a problem not to persist for a number of more years.

I think that's exactly the position that the people working on the lawsuit took.

I don't know of any other area where you can come up with something that's polluting the environment and continue it to the extent that this has happened and not be responsible for the total clean-up yourself.

Look at the way we apply all of our toxic waste substance and all these toxic waste sites that we're requiring the clean-up. This, in the sense of per-acre, it's not that big a deal.

But when you look at the vastness of the area and the tremendous damage that this pollution is doing to the Everglades, it becomes a very, very big deal.

I think that the people should be required to put the pollution in the settling ponds and pollute on their land without expense to the taxpayers as a condition to going forward with the agricultural industry up in that particular area.

Mr. VENTO. I think both of your insights are very helpful to us. We're not there on a daily basis to have to face up to it. We may study it on occasions. But I think your insights in terms of this will be very helpful, especially your response to the legislature's compromise agreement which was not agreed to by everyone in the end, but was the decision they made, which you referred to as a settlement. In fact, that's the effect of what it accomplished, but it became a legislative act, Everglades Forever.

I think it was important to get your perspective, Clay, and yours, Peter, on that because I think others will be responding, really, to that. That has become at least the format for now for the immediate actions that will take place.

I'm sure there's much that reaches beyond it.

Mr. Hansen, do you have any questions of our colleagues?

Mr. HANSEN. Not really, Mr. Chairman. I appreciate the colleagues for being here. Sorry for not coming in earlier. I was at the big expose of the Persian Gulf Syndrome that will be announced and let out in another half-hour. But, basically, what they said is they couldn't find any scientific knowledge to back that up.

I kind of think somewhat as I sat on this Committee for many years, from time to time, the extremists come up and create natural calamities that we can't find any scientific knowledge to back it up.

I'm glad that our colleagues have pointed out that there is some absolute, admissible, hands-on type of thing to back up their claim here and we'll look forward to seeing what they have to say.

I have to say that I get a little weary sometime, and not this group, of course, but hearing things that we spend millions of dollars trying to—I've heard so many debates on global cooling and warming, I wonder who's right. And debates on acid rain and other things.

So I'm glad to see our colleagues come up with something that we can probably get our teeth into here today and I appreciate them being here and look forward to further testimony from folks.

Thank you.

Mr. VENTO. Congressman Smith, you were here first.

Mr. SMITH. Thank you, Mr. Chairman. Clay, I understood that a part of the agreement was to guarantee that farmers, especially sugar, were to clean the water that was to be used on their land and they would pay environmental taxes, substantial environmental taxes, in order to do that.

So that part of that agreement was an agreement by agriculture to begin—

Mr. SHAW. There's a portion that's being paid. Now somebody might correct me if I'm misspeaking here, and I would ask them to jump in. But, as I understand it, the land that the settling ponds are going to be put on is going to be purchased and acquired from

the polluters by the South Florida Management District. Then the agricultural people, the big sugar people are going to come in and pay for much of this to be done.

It's not totally lopsided and I don't want to leave the Committee with the impression that the agricultural industry is paying nothing because, indeed, they are. They're paying substantial funds. But the taxpayers are also paying, and that's my concern.

Mr. SMITH. You just don't like the balance.

Mr. SHAW. The taxpayers didn't do it. And I think that the polluters should be responsible for cleaning up their own mess, just as we do with any toxic waste site in this country.

Mr. SMITH. But, in fact, it is a part of the agreement reached with the court, with Secretary Babbitt.

Mr. SHAW. And it was a very hotly, very hard fought agreement. The agriculture industry isn't totally happy with it, either. They fought it and they were holding out. There was all kinds of threats of other avenues, including a referendum and a tax on sugar and various other things that might have helped bring about the settlement.

But the fact remains that the taxpayers are picking up a very substantial portion of cleaning up the pollution caused by others.

Mr. SMITH. I understand. Thank you.

Mr. VENTO. Did you have any questions of our colleagues at this point? I think we'll be hearing about this issue and I don't want to start adding my views of what is absent or missing in the testimony.

Mr. SHAW. Mr. Chairman, if I might just add one thing. I think the study that's going to be conducted here is going to be very, very beneficial. This is a huge area. We've studied little bits and pieces. But now we need to put it together in a giant mosaic so we can look at the whole problem because there is so much finger-pointing. Mr. Hansen was talking about people blaming others.

Well, that's what's been going on. Everybody claims that they weren't responsible, that it's the other guy.

In truth, you have to start tracing this question all the way up to Disney World, come down the Kissimmee River into Lake Okechobee, and then study very hard everything south of there and make a determination exactly what is causing what.

And that is the direction we're going now and now we are on the right track. I just hope that the posse is not getting to south Florida too late.

Mr. VENTO. No. I think one of the issues here is it is a very large area. It is dealing with political problems and boundaries and agencies' responsibilities. It's very hard to weave this together so that it accomplishes the goals. And as we learn new information, we have to integrate that into whatever the plan is and we have to have plans that are more effective to do that.

It will take an extraordinary amount of coordination between the Federal and state and other local entities that have responsibilities here.

Anyway, gentlemen, I thank you and I invite you, if your time permits, to join us at the dias today for the remainder of the hearing, or a portion of it.

Mr. SHAW. I would like to, but health care reform calls.

Mr. VENTO. Well, do good work over there. That's your sentence, to go there and work on that.

We're very pleased to have the Assistant Secretary for Fish, Wildlife and Parks, a friend from the Department of Interior, George Frampton, Jr.

Mr. Frampton, I believe, has been given the lead here to do all the heavy lifting and to keep Secretary Babbitt looking good on this issue.

We're proud of you, George, along with Bonnie Cohen, the Assistant Secretary that has done that.

I don't know if it would be helpful to have all the witnesses here at one instance.

Mr. FRAMPTON. Mr. Chairman, do you want to do this as a panel, so that questions can be addressed to any of us?

Mr. VENTO. Sure. I think if we could pull up some of those chairs, we have five witnesses, unfortunately, and you can put yourself right in the center there, George. Then we'll get Dr. John Zirschky, the Acting Assistant Secretary of the Army, who will be, I'm sure, assisted by Col. Salt in this process. So he'll have to be handy.

Myles Flint, who is the Deputy Assistant Attorney General, Department of Justice, dealing with natural resource issues.

Katharine Kimball, the Deputy Assistant Secretary for Oceans and Atmosphere from NOAA.

And finally, Mr. Robert Perciasepe, Assistant Administrator for Water, Environmental Protection Agency.

I have the most difficulty with those Italian names.

[Laughter.]

It makes it a little cozy there, but hopefully, this will be one of the many examples of cooperation and collaboration, sitting close to one another at the table.

You have enough space so that you get your folks and have others available? So we'll certainly be patient if you need to consult and counsel with your assistants and helpers.

Well, the statements have all been made part of the record and I think we want to—obviously, in questioning, if someone has something to add when we do get to questioning, based on a question directed at another witness, we'll probably get a better dialog going if we get a little free-wheeling here.

We are pleased to welcome you all and your statements, as I said, have been made a part of the record. So you can summarize. I notice some of the statements are lengthy, by necessity, but I hope, if you can summarize, I think it will make it helpful for the members. And some of what you plan on saying is probably going to be repeated by the witnesses that precede you.

Secretary Frampton?

**STATEMENT OF GEORGE T. FRAMPTON, JR., ASSISTANT SECRETARY FOR FISH, WILDLIFE AND PARKS, DEPARTMENT OF THE INTERIOR**

Mr. FRAMPTON. Thank you, Mr. Chairman, Representative Hansen, members of the Subcommittee.

We are all appreciative of the opportunity to come and discuss various aspects of the Administration's efforts to structure a long-

term program for the restoration of the Everglades South Florida, Florida Bay ecosystem.

This program is one of the highest natural resource management priorities for the Administration and specifically, for the Department of Interior. There are quite a few programs that are components that are ongoing as part of this overall strategy.

Bob, could you pull the top off so that we could look at the one underneath?

I have a chart here which it's fairly difficult to see the numbers on, but describes, gives you a sense of the different components of this overall effort.

And in the little boxes on that chart are projected expenditures for projects ranging from the Kissimmee River restoration to the modified water deliveries to the park, the Everglades expansion act process, which you, Mr. Chairman, were instrumental in seeing enacted.

The point I wanted to make here is that the projected cost of the projects that are listed up there is about \$1.7 billion, more than 60 percent of which is state, local and private money.

So this is a very important Federal program, but even more important, it is a Federal, state, local and private partnership. And we're going to have to promote that partnership if we're going to get the job done.

Now the role of my testimony, which I will just quickly summarize, is really to give you an overview of some of the main elements of this program, and then speak to one or two of the specific components. And others here will be talking about some of these other programs.

I think the principal elements of the Administration's vision for south Florida restoration are the following.

First, the necessity to view all of south Florida as an ecosystem, linked by the flow of water which is essential, not only to the ecological base of the region, but also to urban communities, to drinking supply for those communities, to the agricultural industry, and to other very important parts of south Florida's economy, including tourism and recreational and commercial fishing.

Second, the corresponding need for cooperation between the Federal departments and agencies that has really not been previously envisioned on a really large scale.

And then a partnership between those Federal agencies and the state, the South Florida Water Management District, local counties and private parties.

Third, the importance—and this has not really been done in the past—of the Federal Government, the Federal departments and agencies, developing a set of overall restoration goals for the ecosystem so that we're not only talking to each other and managing ongoing programs, but we are planning for future programs pursuant to a consistent set of Federal objectives and, hopefully, a consistent set of joint Federal/state objectives.

Fourth, coordinating the ongoing projects.

And fifth, and this is really looking backwards rather than forwards. It has been a priority over the last year, obviously, for the Department of Interior and the Department of Justice particularly to try to settle seven years of litigation over one specific issue, the

phosphorous loading of water coming from the EEA down into the Everglades, the water conservation areas in the Everglades, both in order to get that issue behind us, to get the clean-up going, but also to build a foundation for the broader restoration effort.

So these have been the major themes or components of our strategy.

About a year ago, when I became assistant secretary, I undertook with some of the folks up here at this table, to start the process of Federal cooperation by putting together a Federal interagency task force, South Florida Ecosystem Restoration Task Force. That task force has been chartered last fall. It's composed of assistant secretaries representing six Federal departments, ten Federal agencies.

It is charged with setting overall strategy for the restoration effort, for coordinating budgets, and for supervising the work of agency people at the regional and local level.

Now to accomplish the task force's goals, we're not trying to do this from Washington, D.C. at the assistant secretary level. We also established a working group of regional directors and key local managers in south Florida and charged them with actually developing this program and coordinating the work on the ground.

The working group in Florida is currently chaired by Dick Ring, the superintendent of Everglades National Park. Billy Causey from NOAA from the Florida Keys National Marine Sanctuary is the vice chair.

That working group then proceeded to set up a number of subgroups. The first subgroup that was established was the science subgroup. That group has been working very hard on two projects.

One project is to try to develop for the task force a set of restoration objectives on behalf of all of the Federal agencies that can be used by the Corps of Engineers in its reconnaissance study for the redesign of the central and south Florida project.

And I'll just say a word about that. Dr. Zirschky will be saying some more about that. This is a very important component of this overall effort that is not yet shown as a full-blown project on this chart up here.

This is a Congressionally-mandated reconnaissance study to be completed in November of 1994, to look at whether and how—this is the first stage of a number of planning and design stages—whether and how the entire central and south Florida project originally conceived as a flood control, navigation, recreation, agricultural support project, should be redesigned with a view to looking at ecological objectives, aquifer recharge objectives, and a broader set of purposes.

This is a very important first stage of an effort in which the Corps of Engineers is going to be the lead Federal agency, but really came to the rest of us and said, we ought to do this as a joint Federal effort.

And so, an important part of the science subgroup to the working groups, the first year has been spent trying to develop a set of scientific principles that would help guide that restoration effort.

The science subgroup, incidentally, has also developed a coordinated science research agenda for south Florida, reaching out also

to universities and state scientists, and that is something that has never been done before.

And as was mentioned earlier, I think by the two members who testified, Col. Rock Salt, who has been the district engineer in Jacksonville last month was named the executive director of the task force. He will continue—I think this is an example of how Federal agencies are working together—he will continue as a uniformed officer in the Army Corps, but he will report now to the task force through me as the chairman, and he will be responsible for coordinating in Florida the efforts of the various agencies.

Let me just mention, finally, briefly, before closing, the Everglades Forever Act and the process that led up to the settlement of the litigation over phosphorous loading.

When I first got into this a year ago, one of the things that became apparent from many of our managers—and I say that not only Park Service and Fish and Wildlife Service, but others in Florida, the state, some of the Members of Congress, Senator Graham—came to Secretary Babbitt and to me and said, one of the greatest impediments to moving forward with any kind of a restoration program in south Florida is the ongoing litigation over phosphorous loading.

The prospects are that this litigation will continue for five to six years. The Federal Government, at the very least, will spend tens of millions of dollars and no clean-up will begin until this litigation is completed.

We have a very small window of opportunity to settle this issue in a way in which a fair contribution is made by all parties. We're asking you to get into this and try to accomplish such a settlement.

We did make an effort to do that last summer. We reached a statement of principles with two major sugar companies—the South Florida Water Management District Federal parties and the state. We were unable to close that deal last fall. But in some ways, it was fortuitous that those negotiations foundered, because even if we had been able to finalize a settlement of the litigation, we would still have had to go back to the Florida state legislature to create a system for guaranteeing agricultural party payments for their share of the settlement.

And when the negotiations did fall apart, one of the two companies walked away. We went back to the Florida state legislature anyway—and I say we. Principally, the governor and the state agencies, but with the support of the Federal Government. And the legislature did enact what amounts to a settlement along the lines of our original deal last summer, but in some ways substantially better for the public and for the ecosystem.

A number of issues that were left open, a number of issues that the environmental community wanted improved in that original statement of principles last summer were actually enacted by the Florida state legislature.

We have a better settlement from the state legislature than we might have negotiated last November, December, had we been able to close the deal that way.

I think the importance of the settlement—it is a compromise. But the importance of the settlement is that we will begin cleaning up the water. We will get on with it. We will spend our money on

clean-up rather than litigation. We will save four or five years and we have put that issue behind us and we're able to get on now with some of the programs that you're going to hear more about from the other witnesses today.

Thank you, Mr. Chairman.

[The prepared statement of Mr. Frampton may be found at end of hearing.]

Mr. VENTO. Thank you, Mr. Frampton. We're pleased to invite John Zirschky, the Acting Assistant Secretary of the Army, to present his testimony.

Mr. SMITH. Mr. Chairman?

Mr. VENTO. Mr. Smith?

Mr. SMITH. Unfortunately, I have a conflict. I have a couple of questions for Mr. Frampton. If you desire to go ahead with the panel, that's fine. I'll just submit them for the record.

Mr. VENTO. Yes. Without objection.

Mr. SMITH. Or I could offer them now.

Mr. Vento. I think we'd like to continue with the panel, Mr. Smith. And so, if you'd submit them for the record, I think that that would be most helpful.

Or maybe you could come back at some time, if you're where staff can reach you, to come back and ask them personally.

Doctor?

**STATEMENT OF DR. JOHN H. ZIRSCHKY, ACTING ASSISTANT SECRETARY OF THE ARMY FOR CIVIL WORKS, DEPARTMENT OF THE ARMY**

Dr. ZIRSCHKY. Mr. Chairman, Mr. Hansen, members of the Committee. I'm John Zirschky, currently the Acting Assistant Secretary of the Army for Civil Works and as has been noted, accompanying me is Col. Terrance Rock Salt, the commander of our Jacksonville district.

Let me quickly review a little history about the central and south Florida project.

Congress authorized the Corps of Engineers to implement a comprehensive plan for the Central and South Florida, or C&SF, Project in the Flood Control Act of 1948. The plan was authorized to serve the primary purposes of flood control, water supply for municipal, industrial and agricultural uses, prevention of salt water intrusion, water supply for the Everglades National Park, navigation, and protection of fish and wildlife resources.

Furthermore, the authorization required that a portion of the project cost be borne by a local sponsor.

The Central and South Florida Flood Control District, later renamed the South Florida Water Management District, was created by the state in 1949 to serve as the local sponsor.

As it exists today, the C&SF Project encompasses approximately 18,000 square miles, includes 1400 miles of levees and canals, 130 water control structures, and 16 major pump stations. All of the major drainage basins in the project area are now controlled by man.

In fact, virtually all the water entering the Everglades flows through the C&SF Project.

The Corps of Engineers is currently undertaking four major efforts to restore the South Florida ecosystem—the Kissimmee River Project, the Modified Water Deliveries to the Everglades National Park Project, the South Dade County, or C-111 Project, and the C&SF Project Comprehensive Review Study.

Each one of these system modification efforts must preserve each of the Congressionally-authorized project purposes that I just reviewed.

The first project is the Kissimmee River Project that was authorized by the Water Resources Development Acts of 1988 and 1992.

They consist of modifying and dismantling portions of our water management system. The objective is to restore more natural hydrologic conditions of the Kissimmee River Basin. Water level fluctuations will be provided in Lakes Kissimmee, Cypress, in the headwaters of the Kissimmee River.

Also in the headwaters, discharges to the Kissimmee River will be made more natural through modified operations.

In the lower Kissimmee River, the project consists of backfilling about 29 miles of existing flood control canal and restoring flow to about 56 miles of the original river channel.

When completed, the project will result in restoring 35,000 acres of wetlands, including 19,000 acres directly restored by the project. The total cost will be approximately \$511 million and the project will take ten to 15 years.

We executed a project cooperation agreement in March and had the ground breaking ceremony on April 23rd, 1994.

Cost-sharing for the project is 50 percent Federal and 50 percent non-Federal. For his efforts in this project, Col. Salt received the Meritorious Service Medal from the Department of the Army.

The Modified Water Deliveries Project to the Everglades National Park was authorized by the Everglades National Park Protection and Expansion Act of 1989. In part, this Act authorized the Secretary of the Army to construct modifications to the water management system to improve water deliveries into the Everglades National Park Shark River Slough. The project will restore or enhance more than 300,000 acres of Everglades habitat in Water Conservation Area No. 3 in the existing Everglades National Park area, and in the East Everglades expansion area.

The timing, volume and location of water flows to the Shark River Slough will more closely approximate those that occurred prior to construction of the existing water management facilities.

An iterative testing process is being employed, with each test being designed based on information obtained in previous iterations. We're trying to develop and use the science to more effectively restore the system.

All iterations of the testing program have been implemented through cooperative efforts of the Corps, the South Florida Water Management District, and the National Park Service. To date, the testing process has substantially improved hydrologic conditions within Shark River Slough by restoring more natural conditions.

Additionally, the modified water deliveries project is designed to protect adjacent private property from adverse impacts caused by the project.

A decision prior to June, 1995, on whether to provide structural flood mitigation or to acquire land would enable efficient budgeting and planning, and we're currently trying to resolve those issues.

Col. Salt has been working with the Congressional interests, the governor's office, the South Florida Water Management District, the Park Service and Dade County to ensure that all necessary information is available for recommending the appropriate alternative.

The construction of the structural flood mitigation alternative could be initiated in Fiscal Year 1997.

The C-111 project, or South Dade County project, was authorized in part by the Flood Control Act of 1968 and the Everglades National Park Expansion and Protection Act of 1989. Water levels in Taylor Slough and the National Park have been substantially lowered as a result of the Central and South Florida project. A general reevaluation report proposes restoring more natural flows to Taylor Slough by constructing a detention/retention area along the east edge of the park boundary and a transition area to separate agricultural lands to the east.

Flood control for agricultural lands to the east would be maintained. It should be noted that this project would require the acquisition of about 12,000 acres of agricultural lands in the Rocky Glades Agricultural Area and the Frog Pond.

Distribution of the final GRR and EIS and initiation of a 30-day public review period is scheduled for June 30th, 1994.

Next, the Central and Southern Florida Project Comprehensive Review Study.

In June, 1993, the Corps initiated the reconnaissance phase of the study, which was authorized by Section 309 of the 1992 Water Resources Development Act and two House Committees on Public Works and Transportation resolutions.

The reconnaissance study is defining problems and opportunities, determining whether planning should proceed further into a feasibility study phase, estimating times and costs for the feasibility phase, and assessing the level of interest in and support for the identified potential solutions by non-Federal interests.

This study is being closely coordinated and developed in partnership with the primary local public agency—the South Florida Water Management District—as well as other key Federal agencies, including the National Park Service, the Fish and Wildlife Service, the National Marine Fisheries Service, and the Environmental Protection Agency.

These agencies have provided study team members that actively participate in the day-to-day study process on either a full-time or part-time basis. Such activities are also being coordinated with the Federal Task Force on South Florida Ecosystem Restoration.

The public involvement program for the study is reaching out to all concerned interests, including environmental and developmental interests, state and local agencies, as well as interested members of the general public. The first round of public involvement was successfully conducted through a series of ten public meetings in December, 1993. A second round is scheduled for later this month. And a final round of public involvement will be conducted when the draft report has been distributed later this year.

In conclusion, it's been noted that Col. Salt will be serving as the executive director of the task force following his change of command as the district engineer in Jacksonville. Also in his position, he'll devote about 25 percent of his time to assisting the Corps in bringing back the lessons that we learned from this project to other Corps projects, other Corps activities to improve the environmental performance of the civil works program.

Thank you, Mr. Chairman.

Mr. VENTO. Thank you, Dr. Zirschky. We'll now ask Mr. Myles Flint, who is with the Department of Justice and the Natural Resources Division, to present his statement.

If you can summarize your statement as well, Mr. Flint. I've had a chance to review it. It's excellent.

[The prepared statement of Dr. Zirschky may be found at end of hearing.]

**STATEMENT OF MYLES FLINT, DEPUTY ASSISTANT ATTORNEY GENERAL, ENVIRONMENT AND NATURAL RESOURCES DIVISION, DEPARTMENT OF JUSTICE**

Mr. FLINT. I will try to be brief.

My comments, as identified in my statement, are essentially backward-looking, sort of reciting the history of our litigation effort, the litigation that was mentioned by Secretary Frampton with respect to an attempt to clear up the phosphorous problem, where phosphorous is coming from the Everglades agricultural area into the Everglades.

I appreciate the opportunity, Mr. Chairman, to appear today and comment on this.

This litigation was known at the time it was initiated and it clearly was simply a first major step in the process of dealing with pollution problems in the Everglades.

It was, as everyone knows, an extremely contentious piece of litigation. After four or five years of heated acrimony, with the efforts and support of Gov. Chiles and Carol Browner, then the head of the Department of Environmental Regulation for the State of Florida, we were able to achieve a settlement of this Federal court litigation.

That Federal litigation was predicated primarily on an effort to enforce state water quality standards which had been adopted for the protection of the Everglades National Park and the area where the Loxahatchee National Wildlife Refuge is located in south Florida.

Our settlement with the state and the South Florida Water Management District, in order to be implemented, had to be implemented pursuant to state administrative processes.

Our settlement provided for the creation of storm water treatment areas and the imposition of best management practices within the agricultural area to cut down the amount of phosphorous that was flowing to the south.

Those that opposed the Federal court settlement used the state administrative process very effectively. We went into the state process with the state and the South Florida Water Management District and the Federal interest cooperating extremely well, working, sharing information, technical information to make sure that

the science that was the basis of the settlement was accurate and the best that was available.

But, nevertheless, using the state procedures, the agricultural interests were able to essentially stall the process using administrative challenges to the decisions of the state and the South Florida Water Management District.

Our settlement originally in the Federal litigation contemplated activities in the construction of the storm water treatment areas to be completed at least in the first phases by 1997, and to complete the process by 2002.

The litigation that we were confronting in the state administrative process was slowing that schedule down. No shovels were being turned to deal with the problems that we were confronting.

And it was at that point we, working with the Department of the Interior, began looking for other solutions, other ways to settle this litigation which would achieve the objective of getting actual clean-up activities underway in the Everglades.

Our efforts were unsuccessful, as Secretary Frampton described, in the sense that we never achieved a complete settlement of that process.

There were several major successes that were made along the way in our settlement negotiations with the agricultural interests and with coordinating with the various environmental groups.

One of those was a new technical plan which was essentially an enlargement on the technical plan that had been included in the initial Federal settlement, which all of the parties, the agricultural industry, in a large part, at least some of the environmental groups were in support of providing a program which provided greater protected and added protection to the Everglades over the original Federal plan.

When our efforts in the Federal litigation to resolve the Federal and the state litigation with the agricultural interests failed last December, the litigation was revived in the state administrative process and it has, however, been overtaken by the new state legislation, which essentially adopts in toto the technical plan which had been agreed upon as a part of the mediation efforts that were held last year.

The advantage that we see from the passage of this state legislation is that it short-circuits and cuts off some of the administrative processes that were stopping the development of activities to clean up the Everglades. And the program can now be initiated.

As a result of the passage of this state legislation, the majority of the litigation concerning the Everglades was put to rest.

There are still a couple of pieces of litigation remaining, but, for the most part, it seems that the parties are now focusing in a forward direction on the implementation of the state act and directing their attention to new projects to correct the problems in the Everglades.

Thank you.

Mr. Vento. Thank you for summarizing your statement, Mr. Flint. We'll be back with a question or two in a moment.

We're pleased to welcome Katharine Kimball, Deputy Assistant Secretary for the Oceans and Atmosphere, National Oceanic and Atmospheric Administration.

Ms. Kimball?

[The prepared statement of Mr. Flint may be found at end of hearing.]

**STATEMENT OF KATHARINE KIMBALL, DEPUTY ASSISTANT SECRETARY FOR OCEANS AND ATMOSPHERE, NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION, DEPARTMENT OF COMMERCE**

Ms. KIMBALL. Thank you, Mr. Chairman, and members of the Committee.

I am, as you say, Kate Kimball, Deputy Assistant Secretary for Oceans and Atmosphere at the National Oceanic and Atmospheric Administration.

In my testimony today, I want to focus on NOAA's role in restoring the South Florida ecosystem.

Our primary role is to contribute science and stewardship to the region. We are responsible for managing living marine resources at the Florida Keys National Marine Sanctuary and Florida Bay. We are interested in protecting the coral reefs and other nationally significant marine resources at the sanctuary and protecting the Bay's important commercial fisheries which are essential to the economy of the region. In partnership with the State of Florida, NOAA administers the Coastal Zone Management Act to manage land and water uses affecting Florida's coastal resources.

The Florida Keys National Marine Sanctuary provides protection to unique and nationally significant marine environments, including seagrass meadows, mangrove islands, and the nation's only living coral reef tract adjacent to North America. As the marine equivalent of tropical rain forests, these environments support high levels of biological diversity. They are fragile and easily susceptible to damage from human activities.

The sanctuary extends 220 miles south-southwest from the southern tip of Florida, encompassing the waters of the entire Florida Keys archipelago. All the Federal refuges, state parks, and aquatic preserves, other than the national parks, fall within the sanctuary boundaries.

The coral reefs of the Florida Keys are the downstream component of the vast ecosystem that originates north of Lake Okeechobee. This highly diverse ecosystem supports valuable commercial and recreational fisheries and forms the economic basis for tourism and recreation, the number-one industry in the Florida Keys. Over 6 million tourists visited the Florida Keys in 1992, spending almost \$800 million.

Historically, the major components of the South Florida ecosystem have been linked through the flow of freshwater from Lake Okeechobee through the Everglades into Florida Bay, where the water passes through the Keys onto seagrass beds, coral reefs, and other nearshore habitats. This flow, as has been testified before, has been interrupted by human manipulations in South Florida, resulting in high to hyper saline conditions in the Bay.

There are numerous examples I could provide you of adverse environmental impacts of these human manipulations.

For example, science demonstrates that over the last decade, the quantity and quality of water reaching the coral reef has resulted

in an alarming decline of the health of the coral reefs. You've probably seen examples of coral reef leeching and die-off of the coral reefs.

Tortugas pink shrimp landings averaged over 10 million pounds annually during the period of 1963 to 1980. Since then, annual landings have reached the 10 million pound level only once, and severe drops below 5 million pounds per year were seen during 1988 to 1991. Tortugas shrimp fishery production appears to be directly or indirectly linked to freshwater inflow into Florida Bay, the largest nursery area for juvenile pink shrimp in South Florida.

Seagrass habitats, which once dominated the seafloor of Florida Bay, have changed from a mixture of three species to predominantly turtle grass meadows. Since the mid-1980's, these meadows have been dying, resulting in large areas of unvegetated bottom. Coinciding with this die-off has been an increase in turbidity from both resuspended sediments and blooms of microscopic algae.

In addition, the water protection quality program drafted by EPA and the State of Florida for the Florida Keys Sanctuary defines numerous point sources and literally thousands of potential non-point sources from nutrients of anthropogenic sources that may be contributing to the eutrophication of the nearshore waters of the Keys.

The Miami Herald reported recently that there is an indication that some of these contaminants may be affecting the development of fisheries. We're starting to see deformities in some of the fish in the region.

We are pleased to have been part of the interagency task force established by Assistant Secretary Frampton. We are, as he said, cochairs of the science sub-group which produced the science report last year. We are also represented on Governor Chiles' Commission on a Sustainable South Florida. We believe that both Federal interagency activities and cooperation with state and local arms of Florida are very important to any success in the region.

Both the short-term and long-term measures to restore Florida Bay must be proportional to the scale of the ecological crisis we are witnessing in the Bay. Unless we quickly restore the natural hydrological functioning in the South Florida ecosystem, it's likely that all of our efforts to protect the downstream resources of the Florida Keys National Marine Sanctuary will be in vain.

Thank you, and I'd be happy to answer any questions.

Mr. VENTO. Thank you, Secretary Kimball.

We're pleased, finally, to receive testimony from Mr. Robert Perciasepe, the Assistant Administrator for Water from the EPA. Mr. Perciasepe?

[The prepared statement of Ms. Kimball may be found at end of hearing.]

**STATEMENT OF ROBERT PERCIASEPE, ASSISTANT ADMINISTRATOR FOR WATER, ENVIRONMENTAL PROTECTION AGENCY**

Mr. PERCIASEPE. Thank you, Mr. Chairman, and members. It's a pleasure to be here today with my colleagues from the other Federal agencies.

What I would like to do very briefly, though, before I even get into—and I'm going to be very brief—is recognize for the Commit-

tee some of the team that EPA has working in the south Florida area. I think one of the objectives you have today is to get a sense of the Federal commitment.

With me today is John Hankensen, who's in the back. He's the Regional Administrator of this region of EPA, the southeast, called Region 4. His water Division Director, Mike McGee, who also chairs the Management Committee of the Task Force, also Bob Whelan, who is the Director of the Office of Wetlands, Oceans and Watersheds for the Office of Water at headquarters EPA, and also a key staff person at the Agency for Ecosystems Projects. Chuck Spooner, who I think is also in the back somewhere, is a key staff person at the headquarters, and also formerly the director of EPA's Chesapeake Bay Program.

So there's a lot of experience in large-scale ecosystems restoration projects.

And just in summary, on the staff, I'd mention that Carol Browner actually grew up next to the Everglades and was formerly the Secretary of the Department of Environmental Regulations in the State of Florida.

I won't say anything about myself.

[Laughter.]

I want to echo the importance of this resource. I'm just a spokesman for all those other people. I want to echo the statements of my colleagues and the members about the importance of this resource and not go into detail on why EPA also agrees on why it is an important resource that needs to be restored.

I would like to focus briefly on the main areas that we are coordinating with the other Federal agencies on.

I might add that this collaborative effort that Mr. Frampton talked about early on in his testimony of the agencies working together is crucial for the success here and probably even needs to be further expanded to keeping the local and state governments involved, and I know we're all working on that.

One of the main things the agency is working on at EPA is the support of the interagency restoration efforts through the Task Force. Again, this restoration effort requires the participation of all these agencies with their unique responsibilities, including those at EPA.

In Fiscal '94, this year, EPA is expending almost \$5 million on projects and research in the area of the south Florida ecosystem.

I think that the philosophy that George mentioned earlier that of empowering our regional staffs, who are capable and talented, to solve problems, is one of the key components of the effort that we're doing, and it goes along with the EPA's staff as well.

One of the areas we're also looking at and working with the task force on is the area of mercury pollution, which hasn't really been mentioned yet at any length. But mercury is a problem in the Everglades. We have almost 2 million acres that have fish advisories by the State of Florida. Unfortunately, Mr. Hansen mentioned that he doesn't want to see us study things forever.

The problem is, we still don't understand fully the dynamics of the mercury problem and where it's coming from. One of our objectives in the work that our office of research and development is doing is to further nail down the actual mechanisms that are at

work with mercury so that we can translate that into management actions in the not-too-distant future.

A large part of our funding in this year and next year is in that area.

There are many other EPA programs and I'd like to highlight a couple that are national programs, but also have a very important role in the south Florida ecosystem restoration program.

Section 319 of the Clean Water Act, we provide grants to the state for nonpoint source pollution control and the State of Florida has allocated much of, not all, of their allocation to projects in the south Florida area. There's also a program we do jointly with the Corps of Engineers called the Wetlands Protection Program, and the other Federal agencies are intimately involved with this. It's sort of a group program where we work very hard on both mitigating and reducing the impact on wetlands in the United States, and obviously, that is a key activity in this area.

I want to echo the important things that Kay Kimball said about the Florida Bay and the keys.

This is very much an anchor of the whole ecosystem and the problems that are faced in the coral reefs off the Keys and in Florida Bay are all intimately related to the work that John's people will be doing to the north in the Kissimmee River.

So the key approach here of an integrated, interagency attack is absolutely essential.

We already mentioned the importance of the Florida Bay for habitat, for commercial fisheries. I don't think we mentioned the diving industry. It is an important part of the tourist industry, \$300 to \$400 million a year to the economy. It's very important that we keep an eye on that and make these improvements and make these plans so that they attack the problems important to these industries.

We have, with NOAA, a statutory responsibility in the Marine Sanctuaries Act for a water quality plan for the Florida Keys Marine National Sanctuary. And we're working together with them. We're concentrating on the water quality of the sanctuary, distribution and conditions of the seagrasses, which has already been mentioned, and conditions on the hard-bottom habitats and the coral reefs, also, that are important for the commercial fisheries and the tourist industry.

We are also working with Monroe County on some of the waste disposal problems in the key area, and also with the city of Key West on their sewage treatment plan, looking at what impacts might be resulting from that and what changes, if any, might be needed from the sewage treatment plant perspective, using our existing financial tools through state revolving funds and permitting tools.

The last thing I want to mention that we're working on with the Natural Conservancy and the South Florida Water Management District is a citizen's monitoring program that helps foster citizen involvement, which we're all going to need for buy-in and ownership to this whole restoration effort.

So I would just simply like to close, Mr. Chairman, by saying EPA feels as a strong partner with our Federal colleagues and we're working very hard on this project.

[The prepared statement of Mr. Perciasepe may be found at end of hearing.]

Mr. VENTO. And the citizens are volunteers for this job.

Mr. PERCIASEPE. Volunteer monitors.

Mr. VENTO. Well, it's important. I've seen some programs like that. We're scheduled for a vote here and so I'll leave in just a moment.

I think it was quite appropriate, Mr. Perciasepe, to, in fact, introduce the other EPA personnel because, in the Committee, we always would like to see more of this type of cooperation. We know it's vitally important to the success of areas that we designate. We sort of have an attitude that if we designate enough, we can protect it.

What we found is that we even have mercury pollution, believe it or not, in northern Minnesota, plus other pesticides that come from places where they grow cotton.

And that isn't in southern Minnesota. It may be south, but it's not that far south.

In any case, this has obviously given fish advisories throughout the Superior area, sadly. So we're very concerned about it. I think they're even more significant here because of the shorter life of the fauna in these areas. So they tend to concentrate much greater in long-lived species.

In any case, the liberation of that mercury, where it's coming from and so forth, is important and it sort of brings up another issue.

But let me ask, on the EPA organization basis, you pointed out that there's a regional role in terms of the execution of this role and these studies and this collaboration.

Is Florida not a joint jurisdiction state? Don't they actually assume the EPA role for a variety of different regulatory functions?

Mr. PERCIASEPE. We are working with the State of Florida now for the potential that they would assume the national pollution discharge elimination system permit program, which is still in Florida operating out of our regional office.

Mr. VENTO. So they don't have all the assignments.

Mr. PERCIASEPE. They don't have them all.

Mr. VENTO. OK. But they have some.

Mr. PERCIASEPE. But we have a very collaborative effort.

Mr. VENTO. I'm not trying to raise an issue. I'm just trying to discover what we're dealing with. But insofar as this particular task is concerned, it is wholly an EPA or regional office effort. Not that you're not sharing information.

Mr. PERCIASEPE. My point, Mr. Chairman, was simply that our regional staffs, the Federal agencies, we can't run these things completely from Washington. We need to empower our regional staffs to be working together on the ground with the state and with the local governments.

Mr. VENTO. Everyone else, I think, sitting at the table has a role. Not that it's centralized. I'm talking about the state employees and so forth, with their PCA, or whatever the acronym is for Florida.

I know mine. I mean, I don't know all the 50 states. That's the concern.

Other agencies don't have that particular situation or circumstance in terms of how they implement programs.

Mr. PERCIASEPE. A lot of the EPA laws do have that state delegation program.

Mr. VENTO. That's right.

Mr. PERCIASEPE. There are clear partners.

Mr. VENTO. Well, let me recess for the purpose of a vote, and then I'll be back, maybe with other members, to ask some questions.

I'll remind Congressman Smith that he can come back at this time.

We'll stand in recess momentarily.

[Recess.]

Mr. VENTO. Let's get back to our seats.

The Committee will resume our sitting and we thank you for your patience in my absence.

I think that, obviously, the lawsuit has been a big factor so far in setting sort of the format for what has happened.

Mr. Flint, you pointed out some loose ends. But clearly, after the legislature passed the act, which was predicated on the good work done by all in terms of a settlement to avoid extended litigation, that the problems would have persisted for another five or six years until resolution.

So even if we had, or even if the prevailing side concerning the phosphorous damage would have occurred, there would have been five or six more years before we even began to address it, at least in part, or in some parts.

What are the loose ends of it? It seems to me that some of the defendants where there was an initial ruling were in a posture, at least I look at them as defendants. Maybe they were plaintiffs in the administrative sequence of things. But that they have actually voluntarily agreed to comply.

I guess it's as much a help to get a positive vote on saying, yes, this is what we want to do. This is sort of the voice of the people of Florida and overwhelmingly, moving even in a more positive direction, as was indicated. It was Mr. Frampton, or from Secretary Frampton's view.

What are some of the loose ends?

I notice we have the Indian tribe legislation led by a very well known member of the bar.

Mr. FLINT. Mr. Lehtenen, who worked with me in negotiating the Federal court settlement, is now representing the Miccosukee tribe. He has filed litigation challenging an agreement that was entered into with Flo-Sun in January of this year.

Mr. VENTO. So that actually predates the legislative action.

Mr. FLINT. It predates the legislative action, and it's in very preliminary stages. I'm not quite sure where that piece of litigation is likely to go.

It's also not clear just exactly what impact that's going to have directly on the implementation of the state program, in any case. There's no direct tie-in to the implementation of the state legislation.

There is also—the Federal court case is still there. We are going to be working on modifying the consent decree that was entered

there to conform it to the state legislation. It's probably not a major issue.

There is still pending in the 11th Circuit Court of Appeals an appeal brought by the agricultural interests in which the primary issue is the jurisdiction of the Federal court to get involved in the issue at all. The position of the agricultural interests in that litigation was that there was no proper Federal court jurisdiction to support Judge Hoeveler's entry of the original consent decree.

Mr. VENTO. Well, I appreciate that. And what is the schedule for resolution of that, if you would venture a prediction?

Mr. FLINT. Well, that case has been briefed and argued to the 11th Circuit. It was argued in, I believe, early May. So we are just awaiting the decision of the 11th Circuit on that issue at the present time.

Mr. VENTO. Clearly, some of that has been eclipsed now, again, by state action. It might be good for academic pursuits, but because the state has acted, it would call into question some of the other standards and many other Federal laws, rules and land classifications. It would also call into question the right of the park, the wildlife refuge or the marine sanctuary to, in fact, deal with the activities that are transboundary, I assume.

Mr. FLINT. Well, it still has a bearing with respect to the continuing vitality and validity of Judge Hoeveler's settlement, the settlement that Judge Hoeveler entered.

Mr. VENTO. But your point is that it does not in fact cure the basic decision. Is that your point? That it doesn't go so far as to cure that decision or to in fact put it all in the statute.

Mr. FLINT. Well, I think that in terms of the agreement between the state and the United States in the South Florida Water Management District, we have reached agreement. And I think that we continue in agreement.

There are some who still challenge our ability to do that in the Federal court setting.

Mr. VENTO. Anyway, I guess what I'm trying to say—I don't know if it's the wrong legal word—the legislation passed by the state. Are portions of it severable based on the question of validity of some of the components?

Do you know how that's treated?

Mr. FLINT. I'm not quite sure that I understand the question.

There may be challenges to the state legislation independent of the Federal court litigation.

Mr. VENTO. Well, I think that that could happen as a result of this. That could happen.

My point is, I guess it could happen as a result of whatever decisions are reached on this particular basic question that you raise in the 11th Circuit. And from that would flow a questioning of the basic components of the state legislation.

Mr. FLINT. I don't see that.

Mr. VENTO. There's also a different type of severability on the basic action, I guess.

I guess where I was going to was the question of whether the components are severable and if this is applicable here.

The basic issue with regards to the Native American group here, the Miccosukee, is the phosphorous level. It's based on the same issue, or is it that you're getting too much or too little water?

Can you give me some insight into that argument of the plaintiff in that instance?

Mr. FLINT. Well, the litigation that we have with them is a challenge to the authority of the United States to enter into the agreement with Flo-Sun in January.

Mr. VENTO. So it's Indian self-determination.

Mr. FLINT. I hesitate to try to define—

Mr. Vento. Characterize.

Mr. FLINT. Characterize just exactly what their specific allegations are.

Mr. VENTO. Well, I won't ask you to make the argument, but I'm sure you have. Any good attorney would make their argument and respond to it. But I was interested as to what it is entering into the agreement. But, then, they are basically opening up the negotiation, in other words, if you were invalidated as an authority to make such agreement, then they could open up a range of different questions concerning the finding.

Mr. FLINT. Quite frankly, I'm not sure that that is the case.

Mr. VENTO. OK.

Mr. FLINT. I haven't looked at this issue that closely, but it seems to me that the Flo-Sun agreement stands independent of the state legislation and of the proceedings that were held before Judge Hoeveler in the Federal district court.

Were the court to reach the issue of the validity of the Flo-Sun agreement, and were the court, having reached that issue, decided it by saying that, for some reason, it was not properly entered into, I don't think that that decision would affect any of the actions under the state legislation or under the Federal decree.

Mr. VENTO. So they stand independent.

Mr. FLINT. That's right.

Mr. VENTO. And the net effect is that, basically, the state legislation is somewhat of a replication, I guess. It's even a greater requirement, as Mr. Frampton said, with regards to the government's position.

In other words, the greater compliance in terms of the portion of the agreement.

Well, I think we've explored that.

Secretary Frampton, one of the issues, of course, here is this whole land use question and the purchase of land, and of course, the commitment to the future.

I know that there is a sense of the Florida agreement and the Everglades Forever, and there have been some developments with regards to the U.S. Corps of Engineers and their efforts under various laws and resolutions acted on. Even the 1989 law had some public works activity and some policy direction for the Corps.

I don't know if you or Dr. Zirschky could in fact point out where we would be purchasing or generally where we think these type of lands would be purchased and the sequence in which that would occur.

Obviously, one of the outstanding issues I want you to focus on, of course, is the three parcels that very much have been legislated.

That is, the 8-1/2 mile, or the 8-1/2 square mile area, the Frog Pond, and the Rocky Glades area, which is obviously up on the tee right now. The others are still waiting to get on the golf course, I guess.

So I just think that it would be helpful for me and for the Committee members and staff to have a concept of the land use. And so, I hope the witness from the Corps will also feel free to, and/or Col. Salt would feel free to join in this particular discussion so we can get a good idea of the land purchase and the sequence in which they might occur.

Mr. FRAMPTON. Well, Mr. Chairman, let me take a shot at that, and then John may want to supplement that.

The chart that's up on the easel here I think shows the three areas east of Everglades National Park and west of the current—

Mr. VENTO. Why don't you bring that chart over and hold it up because I can't see it? Col. Salt, the other one is going to fall behind you there.

If you just put it in front of the table. The problem, of course, is that the Secretary may have to see it as well.

Mr. FRAMPTON. Rock can point out the specific areas. Of course, we are proceeding over a number of years with the Everglades Expansion Act. Coordinated with that is modified water deliveries to the park.

Mr. VENTO. We'll get our map sequence set up here and we should be all right.

You might just want to set them right in front of the table in front of Mr. Frampton. Then all of us could see them. Those in attendance won't, but I apologize for that.

That's fine. That's great.

Mr. FRAMPTON. All three of these areas, Mr. Chairman, have been identified as important.

Mr. VENTO. And it shows in the southeast portion of the boundary of the Everglades National Park.

Mr. FRAMPTON. I think the bigger map is easier. All three of these areas have been identified as important, but in slightly different ways, to improved natural waterflow into the park, but also, to provide more flow down south, freshwater flow into Florida Bay.

The Frog Pond area, which is the area that probably has received the most attention in the last several months, is an area which is farmed for vegetables. It's owned by a single company. At least that's my understanding, the South Dade Land Corporation.

This is an area which could not be farmed or continued to be farmed without obviously Federal and state subsidies, works to create the proper environment. And the state legislature in the Everglades Forever Act made a decision, state policy decision, that rather than continue to maintain the necessary works to farm that area, that that area ought to be acquired by the state, by eminent domain, and used as a transition zone that will enable more freshwater ultimately to flow down into Florida Bay.

So the state legislation actually provides for that, for the acquisition of the western half of the Frog Pond area. That area is also involved in the current project that the Corps is doing on the C-111 project. And there is an EIS with a preferred alternative, draft EIS. That is going to be finalized in the next month or two. And

the preferred alternative there calls for the larger area—is that right?—to be acquired and used for these flow purposes.

So that's the Frog Pond. I think, Mr. Chairman, you're aware that we have—although that would not, in all likelihood, be brought into the park, certainly not all of it would be brought into the park. That would be a state acquisition because there are important Federal resources that would be benefited. We have an understanding with the state and the district that the Federal Government would try to cost-share that.

And we have requested in the President's budget, \$4.8 million to help with some of this.

That's the Frog Pond. That's probably the area which has been the subject of the most attention.

Mr. VENTO. It's of the most interest to the Committee, at least immediately, because it had been earlier in the decisionmaking process—I don't think at that time that we were into the C-111 decision, although we knew that that was in the background. The issue here was to purchase as much of that as possible with the State of Florida.

But it has a better focus now. It's clear what it's going to be. Obviously, the cost of it may exceed the \$4.8 million, but the interpretation is that the authorization was actually acted on earlier this year or late last year.

So that should be a clear enough signal on that.

The other issues are related to the broader authority and direction of the Corps of Engineers. Land parcels that the Park Service operate, of course, fit in with, in a sense, in terms of sheathflow and water restoration, to the Everglades Park.

And more broadly, some of the other land purchases deal with the Everglades area.

I don't know what other agreements or participation there are within the Department of the Interior; this is outside the park. It's fairly unusual, but it had been money that had been reprogrammed from water facilities to a less costly way of affording the same protection, that was used to purchase these lands.

Mr. FRAMPTON. With respect to the 8-1/2 square mile area, which is the north piece, marked 1-C on the chart, the initial original intention or contemplation of the Everglades Expansion Act was that flood control and drainage would be supplied to that area.

And what's happened, as you're aware, Mr. Chairman, is that the context of the problems facing Florida Bay and the overall needs of this area, our strategy has really changed there and we came back to you and you did authorize us to use some of the money that had already been appropriated for works there, instead to acquire some of that land that would be turned into a transition zone.

Mr. VENTO. This is an unusual circumstance, of course, for the park or the Department of the Interior, actually, buying, purchasing or participating in purchasing land outside of a unit where it would not be wholly federally owned. And I guess it's a question of the covenant and the other legal ramifications in terms of whether or not we would have assurance as to the dedication and utilization in perpetuity of such areas.

Largely, these covenants are a creature of state law, not of something that emanates from the Federal Government.

Mr. FRAMPTON. Well, we appreciate your help over the last year in coping with a set of problems here, which is, I think, typical of what we're looking at when we try to do ecosystem management.

We have some lands here to the east of the park that aren't necessarily park quality and perhaps don't belong in the park, but are very important to be managed with respect to water regimes in ways that protect the park and other Federal resources like Florida Bay.

And so the issue of management and acquisition is not quite as clearcut as the issues that we usually face with Federal land acquisition. We have to be careful as we pioneer some of these new, plow some of this new ground that, for example, when the Federal Government cost-shares, that we do that within existing authorities, that we limit it to a predescribed limit, and that we have Federal protections.

Mr. VENTO. Well, I think, too, Mr. Frampton, that we have to be certain as to what type of monitoring and administrative responsibilities are with that.

We're in the business here occasionally of rewriting reverters in terms of revision of land to the Federal Government, which is an interesting exercise.

But I think the issue of park quality and the boundaries of the park are very much a question here because there is a discussion further. That takes us to another question. I don't know what portions of these, if any, could be or should be included in the park boundary for whatever purposes.

I think this remains an open question as to what the purpose is and how they would fulfill that role in terms of the park.

But the issue deals with the trades and the other land exchanges that are going to go on. I don't know that this map is suitable to that particular purpose. But if you have one that is—I think, obviously, the Corps is very much involved in some other land purchases on their own with the South Florida Water Management District, I assume, or whomever.

But do you want to talk about the trades, the C-111, and that particular land-use plan, parts of which you'd trade off part of the part?

You described that in your testimony, but I think, in seeing it on the map or viewing it from a map would be very helpful to me.

Mr. FRAMPTON. I would defer to Col. Salt to talk about the preferred alternative and the C-111.

Mr. VENTO. Colonel, I think that that microphone is right there and it would work, if you have a map that you want, that's usable for your purposes.

If you'd turn that mike on, if it's not on.

Col. Salt?

Col. SALT. Yes, sir. Sir, the recommended alternative for the C-111 calls for the acquisition of the Frog Pond, entire Frog Pond that Secretary Frampton just discussed, in an area that we call the Rocky Glades, which is really the buffer strip, up to the lower end of the 8-1/2 square mile area.

This is the east Everglades, the new acquisition part. The purpose of this, along with the modified water deliveries project, is to recreate the natural hydrology in that new part of the park.

It's very complicated and I don't presume to be an expert on it. But essentially, the dilemma is surface water flows to the southwest and groundwater flows to the southeast. You have to solve both of those in order for the park, the hydrology in the park to work right.

The problem with lower groundwater levels for the agriculture to the east creates a stronger drain, a stronger gradient of the groundwater flows, and it drains the park. The groundwater just drains out of the park.

So the intent of these buffer lands is both to create a transition zone to be able to keep the flood control benefits of our existing project to the agriculture and the other lands to the east, while at the same time providing these groundwater levels that allow the new east Everglades area, the groundwater regimes to function naturally and to allow Shark Slough to function naturally, as well as Taylor Slough.

And so, it's all part of an interconnected process. I'm very comfortable that the design that we're proposing allows for the management of that system so that the natural values of the park will be preserved and we will be able to restore those in the east Everglades area.

It does call for the acquisition of those lands. We're pursuing a 1968 authority which provides for flood control and the delivery of water to the park and we're modifying our project under that authority.

That authority basically provides that the local sponsor, the water management district, would acquire the lands and pay 20 percent of the construction costs. And so, the recommendation that we've formulated is really consistent with that authority.

Mr. VENTO. Then the remainder would be paid for in agreement, I guess, with whomever else is involved, whether it's the Park Service or the Corps of Engineers.

Col. SALT. Well, we acknowledge the earlier authorization. In our report, we acknowledge the authorization that you referred to concerning the acquisition of that land and acknowledge that the Congress has indicated that it may be appropriate to allow for a partial Federal contribution in the local expense of acquiring those lands.

Mr. VENTO. With regards to the hydrology and the ground surface, or the subsurface movement of water in this geologic formation, USGS, I understand, is doing a \$4 million study on this process. The Secretary testified to that in his written statement.

Will that study be integrated or impact the study or the work that you're doing here, Col. Salt?

Col. SALT. I would say, generally, yes. I think that study is much broader in its investigating of the broader subsurface hydrology.

Mr. VENTO. I know that, yes. But you think the questions here, you're pretty confident, I guess, based on the plans that are being made with the C-111, that you have a pretty good fix on what the parameters are of the surface and subsurface water movement here.

Col. SALT. I'm very convinced that if you don't restore this hydrology, you're just going to continue to drain the park.

Mr. VENTO. They'll be going into more depth, I guess, in terms of this and other areas. It's important.

Now is the Corps involved in other land purchases in the Everglades? I know that the Kissimmee project north of Lake Okeechobee is a big Corps project, a half-billion dollars in terms of restoring the meandering nature of that Kissimmee River and the action that will occur there in terms of filtration and so forth through that area.

But what about south into the Everglades area? What other land purchases are anticipated, if any, there by the Corps at this time?  
Col. Salt?

Col. SALT. Again, in the Kissimmee, our local sponsor, the water management district, is responsible for acquiring the lands and they receive credit for that as part of the cost-sharing arrangement for the Kissimmee.

So, actually, the local sponsor is the one that acquires the lands.

The only other project involving land acquisition involves the litigation or the Everglades Forever legislation in which the Federal Government is responsible for completing the C-51 project, which is a flood control project just west of Palm Beach.

It goes, really, from the top of the Loxahatchee Wildlife Refuge and it's the West Palm Beach Canal that essentially provides flood control in this area and moves the water out to the estuaries.

The C-51 project has the potential to, instead of shunting that water to the east into the estuary, to recapturing that water and moving it back into the Everglades itself.

The problem is one of water quality and how do you make sure that you're not creating a water quality problem as you do that?

As part of the Everglades Forever legislation, the Federal Government is responsible, as agreed, to proceed with the C-51 flood control project and include in that an STA, or stormwater treatment area, just to the east of the Loxahatchee Wildlife Refuge.

This is all integrated into the other components of the legislation. All of the other STAs, the nutrient removal polishing areas, are the responsibility of the water management district.

I think we're still in the process of developing the plan for that portion. That added purpose of the C-51 is new and we're in the process now of going through exactly how we're going to do that.

Mr. VENTO. Yes. Thank you, Col. Salt, for that explanation in terms of those projects and the nature of them.

The issue, of course, is there's a high correlation between potable water for human consumption in the populated areas of Florida, southeast Florida, specifically, and, of course, the needs of the Everglades.

Is that correct, Mr. Frampton?

Mr. FRAMPTON. Yes. In fact, considering various other parts of the country where we're involved in ecosystem management issues that at least appear to many people to pose conflicts between economic growth and environmental protection, I think the south Florida restoration strategy project is one in which there's tremendous economic benefit to all sectors from restoration because the same natural restoration or mimicking replication of some of the natural waterflows that's essential to bring back habitat in the Everglades is also essential for the recharge of aquifers upon which urban drinking water supplies depend.

So we're really serving a number of purposes, including that of urban clean drinking water, ecological restoration, and supporting the health of the bays and estuaries.

Mr. VENTO. Will the benchmark study that you alluded to in your testimony, and others alluded to, which is a legislative mandate, completing it by 1994, will that be completed on time?

Mr. FRAMPTON. Well, I would defer to Col. Salt, but I believe the Corps is on schedule for issuance of that report in November, November or December of 1994.

That's just an initial stage which, if the recommendation is positive, leads, then, to a feasibility study.

Mr. VENTO. One of the issues, of course, that comes to mind immediately as we're looking at phosphorous, Mr. Perciasepe indicated the mercury issue. The litigation was on phosphorous.

Are there other potential problems, Mr. Perciasepe, in terms of other substances that are going to be showing up here?

Do we have other heavy metals and/or other types of problems in terms of nitrogen or nitrates or any other problems that we're going to have to be looking to?

Mr. PERCIASEPE. I think probably nitrates and nitrogen might be another pollutant that we will be facing some concern on as we go along on this whole restoration program.

But I think its role in the Florida Bay is not completely understood and its movement in the groundwater is still being looked at. I think that's probably some of the stuff that the USGS is going to be looking at in terms of the potability of the water and nitrate levels.

But I would be stretching it if I went further than that.

Mr. VENTO. Yes. The reason I'm asking the question is, obviously, you've got one set of problems based in litigation here. We're going into a major review. I think the question is when in fact we do develop more information and data on this, how do these models that we're talking about right now, in terms of the recommended solutions for the phosphorous, fit the other types of problems?

Obviously, if it's airborne, as we suspect with some mercury, or some other types of heavy metals or pesticides, that's a whole issue that can't be addressed necessarily by land use or by waterflow movement, the sheathflow.

Mr. PERCIASEPE. I think it's pretty well established so that the basic part of the Everglades is limited. It has a phosphorous problem. It's what's called oligotrophic. Phosphorous changes and phosphorous starts to change the species composition and creates a whole sequence of events, the plant species composition, where nitrogen may have an impact in the Florida Bay area or in some of the groundwater situations.

So I think that's probably the area that might be something else that's coming up.

In terms of the other contaminants you measured, obviously, there's monitoring going on we're watching. But I don't see those right now as being the major impact that needs to be attacked.

Mr. VENTO. Anyone else have any comments on that at the table?

Obviously, you're pretty confident that the dirty diatoms are causing the problem, Secretary Kimball, in the bay?

Ms. KIMBALL. No one has an extensive research program in the Bay to look at the effect of pesticides on the biota in the region. It is a complex problem. We are seeing, as I indicated in my testimony, diverse impacts on many different species in the area. It is, as Mr. Perciasepe said, very complicated. We are embarked on a fairly massive research program to figure out exactly what is causing which problem.

Mr. VENTO. What ongoing baseline studies are going on or in place in the bay that will be coming to the attention of the Congress or to this Committee?

Ms. KIMBALL. We can provide you with a complete list of all the research programs underway and the description of those by NOAA.

I also want to call attention to the science plan for Florida Bay which Secretary Frampton alluded to that came out in April, which is a plan put together by Federal, State and the water management district scientists, which gives you a good background on what the problems are and some of the suggestions for added research.

Mr. VENTO. You have ongoing studies in terms of the water movement, the lateral movements and so forth, in and down close on this continental shelf.

And so you're pretty confident that you know the patterns and that most of this eutrophication, this common problem of water heating up here and materials flowing out.

Is it just the fact that there is enough water movement and you're pretty certain that there aren't other close-to-shore currents that are actually contributing to this in some ways?

Ms. KIMBALL. I think it's a question of the quantity of freshwater, the quality of the water that's going into the Bay, and the question of added nutrients, nutrient-loading in the Bay. It's creating changes in the ecosystem in the Bay, so we're getting algae blooms and things like that. The ecosystem is changing due to these impacts. So we're having to study a changing system. So it is the combination of those effects.

When you ask, am I confident about anything, I must say it is hard to be confident about anything on this ecosystem. But I feel that our research is at least going in the right direction and we will start getting some better answers.

Mr. VENTO. Well, no, I understand the equilibrium question that you're representing with regards to water. But I was just wondering, we've obviously dismissed the other factors as being a substantial change from the standpoint that it is this lack of freshwater flow from and through the various normal, the regular and natural areas where it flowed and that had been modified.

This is a cumulative effect over a long period of time?

Ms. KIMBALL. Yes. And if your question is, is the lack of adequate waterflow the predominant problem? Yes.

Mr. VENTO. Yes. And so we're certain there are not weather patterns. We don't have 100-year cycles to go on here. Obviously, we've got some problems.

Ms. KIMBALL. I think perturbations in the weather has certainly exacerbated some of these changes that we see. In the northwest, for example, we see a persistence of El-Nino conditions, which is exacerbating an already-existing problem. So there is an inter-

relationship there, but the lack of adequate waterflow is the predominant problem.

Mr. VENTO. Yes, drought and then the recharge. All of a sudden you get a big flushing of nutrients at the time you do get rain.

Ms. KIMBALL. Exactly. And as many of these species are already stressed by the impacts that we see, when you add the weather pattern shifts, such as drought, it creates an added stress on a lot of the species, that they could have once accommodated, but now are no longer able to do so, which is why we have some endangered species listed in the Bay.

Mr. VENTO. Well, coral bleaching is obviously a phenomenon throughout the Caribbean Basin, not just adjacent to the coast of Florida, which is a very important resource. I agree with you, in terms of your underlining the importance of that tropical estuary and the resource nature of it.

I have been out there to enjoy all the forms and shapes of it at various times and I'd like to see that available for a long time in the future.

But it isn't unique to us. Are there some other models we can look to, to other Caribbean nations which have pollution problems or diverted water, where they have similar types of situations and compare them to what's happening here in Biscayne Bay?

Ms. KIMBALL. My understanding is that we are looking at some of the ocean circulatory problems in the Caribbean Basin and how they relate to Florida Bay. There is a relationship there. I am not able at this time to tell you what it is. But, yes, we are looking at other areas. This isn't the only problem with coral bleaching.

We also have underway a coral initiative internationally to try to take advantage of what we are learning here and apply it elsewhere.

Mr. VENTO. Well, thanks for responding. I know that this is of interest to me and I think it obviously points out the necessity for some of the international agreements that we had with the oceans and with the conference that occurred at Rio.

Generally, does the EPA see any shortcomings in the agreement that occurred from the Florida legislature? Are there some points here that are unresolved that you wanted to talk to, Mr. Perciasepe?

Mr. PERCIASEPE. I would just echo what my colleague said about the agreement.

Mr. VENTO. So far, so good.

Mr. PERCIASEPE. There are always going to be things in the future that are left unresolved. I think the idea is to make the progress that is envisioned here.

I think, as Mr. Frampton pointed out, and Mr. Flint, the debilitating activity of courts trying to resolve these things, as opposed to moving on and doing something, I think is the great advantage to what we have now.

Mr. VENTO. Dr. Zirschky, is there additional authority or legislation—I'm mispronouncing your name. I'm sorry.

Pronounce it right.

Dr. ZIRSCHKY. "Zurski."

Mr. VENTO. "Zurski." Pardon me. Dr. Zirschky, do you need additional legislative authority to accomplish any of the goals that Col. Salt pointed out to the Committee?

Dr. ZIRSCHKY. We might, sir, for projects like C-51. The court generally deals with issues like water quantity and dealing with water quality is a new area for us.

So we're exploring whether or not we can fulfill our missions under the existing authority or whether we'll need additional authority.

Mr. VENTO. Has the public been involved with the Corps's study? What has been the involvement here? Are they along with you on this?

Dr. ZIRSCHKY. Not all of the public, but hopefully, most of them.

We held a series of public meetings in December of '93. We have some more public meetings scheduled for the end of this month, I think the 27th through the 30th, and then more subsequent to that.

Mr. VENTO. Is the Corps taking the lead in the negotiations with regards to the Frog Pond and the series of lands—that is, Frog Pond, the 8-1/2 mile area and the Rocky Glades, the portions adjacent?

Who is taking the lead in terms of negotiations there?

Dr. ZIRSCHKY. The Department of Interior, from the Federal Government's standpoint.

Mr. VENTO. Are we all ready to close those deals, Mr. Frampton? They obviously recognize the impact of Mexican tomatoes and therefore—

Mr. FRAMPTON. Mr. Chairman, ultimately, our agreement for the last 6 to 9 months has been that the state would, from the Federal side, we have an interest obviously, depending on the final results of the C-111 GRR. There will be a Corps interest, but the state would take the lead on that and the state and the south Florida Water Management District have really been the leads on looking at negotiating a purchase or following through on the state legislation.

Mr. VENTO. Are there differences that are unresolved between the Department of Interior, the Department of Defense, and the Corps of Engineers, with regards to proposals or efforts that are still being negotiated in terms of the policy that we should know about here today?

Mr. FRAMPTON. I would say, to the contrary, that one of the great pleasures of the last year working on this has been an extraordinarily close relationship between the Department of Interior and the Corps.

The Corps is really going to have to play a lead role here in many, if not most, of these projects. The Corps's interest in embracing ecosystem restoration and in really reaching out to welcome all of the other Federal and state partners in this process has been remarkable and I think it's been probably a new development if you look back over the last five or ten years.

We've had a very good partnership.

Mr. VENTO. I had seen correspondence from the Park Service that had indicated some concern about the experimental work that was being done in terms of waterflows and releases that seemed to

depart. They had agreed to an experiment or pilot program, and that there were suggestions that, in fact, there was inconsistency, in terms of the Corps's release of waters into the park.

Were you aware of that particular concern and has that been resolved?

Mr. FRAMPTON. I'm aware of it. I think it has been resolved. I think that's part of the normal course of five or six Federal agencies trying to do business with their own programs, but do it in harmony.

I think that that kind of communication has been very helpful in our really beginning to mount a joint effort here instead of five or six separate efforts.

Mr. VENTO. Well, trying to evaluate based on rainfall and other factors in terms of seasonal changes and not having it consistent, it sort of then invalidates, if in fact invalidates, the results of such work, unless there is a consistent response and an understanding by the principals involved as to what exactly we're gaining by those insights.

It really destroys the very predicate of the work, in my judgment, unless there's an adequate understanding as to a normal weather pattern or something being modified.

Obviously, if there's life and health or safety, I guess, it's one thing. If it's simply the fact that there is a concern about the agricultural impact of doing that, that has to be understood at the outset. I think we're on a very slippery slope, for the benefit of those who are involved in those agreements here.

It's fine to agree to something, but it has to be, in my judgment, carried out with an open understanding of the effect.

One of the things that's come to my attention is that there are Federal advisory groups that are involved in this. Are there any other legislation—obviously, we'll have a question here. As I indicated, you always have the question of money, if you go to the committees of Congress.

But in terms of authority, as the Corps witnesses testified, they may need additional authority to deal with one or two of the projects that they have.

You anticipate boundary changes to the Everglades National Park which will necessitate legislation, at the very least. Maybe that's the same legislation we're talking about here. That would necessitate legislation for that Corps project and another.

I know right now that some of the Members of Congress are generally, I think, ahead of some of the Administration in terms of trying to propose boundary changes.

Can you tell me when the timeframe will be when you will be proposing a legislative matter concerning that, Mr. Frampton?

Mr. FRAMPTON. I think that that would be dependent in part, Mr. Chairman, on the outcome of the C-111 decision. Some of the areas that I referred to, the three areas, the 8-1/2 square mile area, Rocky Glades, and the Frog Pond, clearly are areas that probably are not park quality and ought not to be in the park.

On the other hand, depending in part on the C-111 decisions, there may be some areas there that would belong in the park.

I would think that we'll know a lot more about that after that decision is made, which should be in the next month or two.

Mr. VENTO. Well, there is a trade involved, as I understand it. One of the parcels—I don't know if I was reading your testimony or someone else's, where they're talking about trading out a piece of the park to execute a water project and then the Corps buying or trading something back in, which it didn't come through to me, I guess, in Col. Salt's explanation, but maybe that hasn't been absolutely decided and so I'm speculating.

Tell me if I am right or not. Have I got the wrong document?

Mr. FRAMPTON. That may have been testimony about the C-111 project.

Mr. VENTO. OK.

Mr. FRAMPTON. Why don't we supply that.

Mr. VENTO. I'm just concerned about that.

Mr. FRAMPTON. I'm not familiar with that.

Mr. VENTO. I'd like to know what the sequence is going to be. If it's in this session, I'd like to know it. If it's not—I was just trying to look ahead at what the schedule might be.

We don't like to exactly get into extrapolating on what we're going to be doing, especially something in this area where there should be a pretty clear signal to the Congress and to the members that are concerned from that area.

Mr. Flint, I had another question for you. Are you continuing to negotiate—and maybe Mr. Frampton will respond to this—do you continue to negotiate with the sugar growers that did not agree? I know Sungrow agreed. Are you continuing to negotiate with the sugar growers, or is that pretty much done?

Mr. FLINT. We're pretty much done.

Mr. VENTO. I see. That's a consensus answer with Mr. Frampton joining in, Mr. Frampton?

Mr. FRAMPTON. Yes. Well, from our point of view, I think the legislation settles these issues by imposing on those who, although the legislation ultimately was supported by a lot of the agricultural parties, the legislation effectively imposes their cost share and the building of the clean-up project on those who agree and those who don't.

So we think that that issue is resolved.

Mr. VENTO. One of the matters that's come to the surface is the requirements of the Federal Advisory Commission Act.

How do they affect the task force? How would exempting this task force from these provisions impact the task force's activities, violate the principles of open government?

What does this do to participation? If you want it, why do you want it? It's something else that you have to come up here and ask for. I guess maybe not me, but—

Mr. FRAMPTON. Well, Mr. Chairman, we have discovered both in Florida and a number of other places where we are trying to do ecosystem management, that the Federal Advisory Committee Act poses an unanticipated barrier, particularly to establishing formal mechanisms for the Federal Government to talk to its state and local government partners and to tribes.

The problem is that in order to do that, you may have to set up and charter a Federal advisory committee, that there are certain balance requirements that may require the establishment of a com-

mittee that has a lot of people who are extraneous to the intergovernmental partnership.

And specifically, in Florida, we've hesitated to formally add state representatives and south Florida water management district representatives to our Federal restoration task force out of concern that we might get in harm's way with the Federal Advisory Committee Act.

The Justice Department and a number of departments have been looking at that. There is no Administration proposal or position on this right now. But one of the things that has been discussed is the possibility of seeking a legislative amendment to FACA that would at least allow the Federal Government, the states, and local governments to form advisory committees among governmental parties or sovereign parties, including tribes, that would not be subject to some of the expensive and rigorous provisions of FACA.

But that is not the Administration's position yet. That is one of the approaches that's being discussed.

Mr. VENTO. I think we've explored most of the issues that I had in mind. I regret that members were called away. It's a busy day.

Is there any one of the witnesses that has a burning desire—I have another minute—to give me some more, confess some more sins or do something here?

[No response.]

Well, if not, I think that we appreciate the work you're doing. Obviously, at the request of Congressman Smith, I'm sure we'll have some written questions which we'll then share with all the members of the Committee, Minority and Majority staff.

We very much appreciate your effort to keep us apprised this morning of the activities in the Everglades and the greater Florida area.

Thank you very much.

Mr. FRAMPTON. Thank you.

Mr. VENTO. The hearing stands adjourned.

Well, we have to come back. We'll be in recess—I said adjourned—we'll be in recess and we're going to come back and mark up the Idaho Wilderness Bill.

[Whereupon, at 12:35 p.m., the Subcommittee was recessed, to reconvene at 2:11 p.m., for a mark-up session; and the following was submitted for the record:]

STATEMENT OF GEORGE T. FRAMPTON, JR., ASSISTANT SECRETARY FOR FISH AND WILDLIFE AND PARKS, DEPARTMENT OF THE INTERIOR, BEFORE THE HOUSE COMMITTEE ON NATURAL RESOURCES, SUBCOMMITTEE ON PARKS, FORESTS, AND PUBLIC LANDS, CONCERNING THE STATUS OF EFFORTS TO PROTECT AND RESTORE THE EVERGLADES ECOSYSTEM.

JUNE 23, 1994

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Chairman Vento, Representative Hansen, and members of the subcommittee, thank you for inviting me to appear before you today. I am delighted to have the opportunity to report on our progress in structuring a long-term program to restore the South Florida ecosystem including Everglades and Biscayne National Parks, Big Cypress National Preserve, the Loxahatchee and other National Wildlife Refuges in south Florida, and Florida Bay (85% of which lies within Everglades National Park.)

As I am certain you are aware, South Florida ecosystem restoration is one of the highest natural resource priorities for the Department of the Interior and for this Administration. In February, 1993, Secretary Babbitt committed to restoration of the south Florida ecosystem because of his responsibility as Secretary of Interior for the parks, refuges, and the Indian tribes of south Florida and for protecting the full range of threatened and endangered species in south Florida under the Endangered Species Act -- including the Florida panther and the snail kite. But he also made that commitment because, in the words of Marjory Stoneman Douglas,

"There are no other Everglades in the world ... Nothing anywhere else is like them."

Overall Themes

The Department's South Florida Initiative embodies a new and expansive vision of the challenges posed to the Everglades and Florida Bay. The principal elements of that vision include:

- the necessity to view all of South Florida as an ecosystem, linked by the flow of water which is essential to the ecological base of the region, to urban residents, and to the agricultural industry.
- the corresponding need for federal interagency cooperation on a scale not previously envisioned, and a closed partnership between these agencies and the State and South Florida Water Management District.
- the importance of the federal and state governments developing overall restoration goals for the region, based on good science, particularly so that the redesign of the Central and South Florida Project could be accelerated.
- the desirability of resolving long-standing water quality litigation to (1) begin to clean up agricultural run-off immediately, and (2) to build a foundation for larger restoration efforts.

- making the Endangered Species Act work as a pro-active, multi-species planning tool.

My testimony addresses a number of these overall themes and priorities. Other witnesses testifying today from the federal departments and agencies will discuss other elements of the overall program we now have ongoing in South Florida.

#### South Florida Ecosystem Restoration Task Force

When I became Assistant Secretary in July, 1993, my first priority was and remains, the ecosystem restoration effort. I convened and now chair the South Florida Ecosystem Restoration Task Force (Task Force) which is composed of Assistant Secretaries from 6 Federal agencies<sup>1</sup> representing 10 bureaus.<sup>2</sup> Its purpose is to ensure that the ecosystem restoration goals are met in as organized and coordinated a manner as possible through consistent policies, strategies, plans, programs, and priorities for addressing environmental concerns in the ecosystem. The Task Force charter signed in september, 1993 set forth the following goals:

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<sup>1</sup> The Departments of Interior, Agriculture, Army (Civil works), Justice, and Commerce and the Environmental Protection Agency.

<sup>2</sup> National Park Service, Fish and Wildlife Service, National Biological Survey, Bureau of Indian Affairs, U.S. Geological Survey, U.S. Army Corps of Engineers, National Ocean Service, National Marine Fisheries Service, Soil and Conservation Service, and the U.S. Attorney for the Southern District of Florida.

- Agree on the Federal objectives for ecosystem restoration to be incorporated into the reconnaissance study for redesign of the Central and South Florida Project, and other federal programs and activities.
  
- Promote the establishment of an ecosystem-based science program that utilizes the strengths of public and private entities and includes research, inventory, monitoring, and modeling.
  
- Support the development of appropriate multi-species recovery plans for threatened and endangered species and candidate species.
  
- Encourage expedited implementation of projects, programs, and activities included in coordinated plans for restoration and maintenance of the South Florida ecosystem.

#### WORKING GROUP

To accomplish these goals, the Task Force established a Working Group in South Florida for management and coordination by federal managers and charged them with developing and recommending a comprehensive ecosystem restoration plan within 12 months. The organization of the Task Force and Working

Group -- a direct "assistant secretaries to the field" relationship that bypasses traditional bureaucratic channels -- is intended to make it possible to streamline and expedite development of plans, strategies, programs, and policies for ecosystem restoration and maintenance.

The Working Group, currently headed by Dick Ring, Superintendent of Everglades National Park, with Billy Causey of the Florida Keys National Marine Sanctuary as vice-chair, has further divided itself into three sub-groups -- science, infrastructure, and management and coordination -- to assist in the development and implementation of a comprehensive program to restore the south Florida ecosystem. The Working Group established the science sub-group first so that it could begin to develop federal objectives for the Central and South Florida (C & SF) Project reconnaissance study. The science sub-group prepared a draft report on south Florida ecosystem restoration in November, 1993 as a contribution to the C & SF project workshops held throughout south Florida in December, 1993. The report has been widely distributed for public review and comment. It will serve as the initial basis for development of a set of ecological and hydrological objectives that will be recommended to the Corps by the Task Force. The Working Group has developed by-laws and sub-group charters and is developing budget needs and a report on its first year that includes a listing of accomplishments and recommendations for

Task Force action, a chart of which will be available on or about August 1, 1994. I would be happy to make a copy of the report available to you as soon as possible thereafter.

Task Force Executive Director

At the last meeting of the Task Force in May, 1994, Col. Terrence "Rock" Salt was named executive director of the South Florida Ecosystem Restoration Task Force. Col. Salt will leave his current position as District Engineer at the Jacksonville District of the Corps of Engineers in August and will serve as the head of all activities in Florida pertaining to the ecosystem restoration effort. He will manage a small office, serving as the primary point of contact for the Federal government's ecosystem restoration efforts. Col. Salt will provide the focus and leadership for our policies and programs in south Florida with the skill and adeptness that have characterized his tenure as Jacksonville District Commander.

His position as executive director also demonstrates the degree to which the ecosystem restoration effort is shared by each of the participating Federal agencies. Col. Salt will continue as a serving officer in the U.S. Army but will be assigned to the Task Force. In this, as in other areas associated with the ecosystem restoration effort, we are doing things in new and more efficient ways, trying to maximize

results by ensuring coordination and consistency between bureaus and agencies.

Florida Everglades Forever Act

The Everglades Forever Act (Act) was enacted recently in Florida<sup>3</sup> and provides the vehicle to begin an ambitious clean-up and restoration program to address water quality, water quantity and hydroperiod problems in the Everglades. The water quality problem is due primarily to the high phosphorus load in agricultural run-off that discharges into the Everglades. The water quantity and hydroperiod problems are caused by water management activities such as dikes, dams and levees that were constructed to provide flood protection and water supply to South Florida. The Act's clean-up/restoration program, which is extraordinary in its scale and scope, represents the best scientific judgment of the federal government, the state government, the agricultural community, and some members of the environmental community on how to solve the problems we are confronting in south Florida.

Before I go into the details of the Act, let me briefly describe some of the previous chapters to the Everglades saga that brought us to this restoration plan. In 1988, the United States sued Florida state agencies on the grounds that the

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<sup>3</sup> The Everglades Forever Act was adopted by the Florida Legislature on April 15, 1994, and signed into law by Governor Lawton Chiles on May 3, 1994.

State had failed to enforce its own water quality laws and as a result two federal properties --the Arthur Marshall Loxahatchee National Wildlife Refuge and the Everglades National Park-- were suffering extensive environmental harm. After several years of rather intense litigation, Governor Lawton Chiles came into office and settled this suit because of his personal desire to stop talking about protecting the Everglades and to begin the restoration work. Under this 1991 Settlement, which was eventually adopted by the federal court as a 1992 Consent Decree, the State agreed to use its state law authority to implement a water quality restoration plan by constructing Stormwater Treatment Areas (STAs), which are artificial filtration marshes, by imposing on farms requirements to use best managements practices (BMPs), and by setting a numerical limit for phosphorus.

The 1992 Consent Decree was never implemented because it was tied up in the courts by some 36 federal and state lawsuits, mostly brought by the agricultural community. Realizing that something needed to be done to get beyond this impasse, in July 1993, Secretary Babbitt, the State, and agricultural representatives negotiated a broad agreement to fund a Mediated Technical Plan to address water quality, water quantity and hydroperiod problems. The basic agreement, known as the Statement of Principles, was for a \$465 million (present value, and an estimated \$700 million in future value)

treatment system of STAs and BMPs, which are on-farm means of improving the water quality of agricultural discharges. The \$465 million would have been paid as follows: the agricultural community would pay 50%, the federal government would pay 8%, and the State of Florida would pay 42%. Details of how to implement the Statement of Principles were negotiated from July until December, 1993. In December, negotiations broke off because one sugar company sought regulatory assurances that neither the federal government nor the State was willing to give. However as of December, substantial progress had been made on how to implement the restoration plan in the Statement of Principles. This restoration plan plus some improvements drafted by the environmental community formed the basis of the discussion and eventually, the Everglades Forever Act that is now Florida law.

Under the Everglades Forever Act, the State is responsible for a clean-up restoration plan that consists of a treatment system, an extensive research and monitoring program, and a regulatory program. As outlined in the Statement of Principles, in present-day dollars of \$465 million, the State will pay for approximately 42% of the costs, the farmers will pay for 50% of the costs, and the federal government will pay for 8% of the costs. The treatment system consists of approximately 40,000 acres of Stormwater Treatment Areas, STAs, i.e., filtration marshes. The State will construct 5

STAs by 2003. An additional STA is scheduled to be constructed by 2002. The STAs will be permitted and regulated by the Florida Department of Environmental Protection, the U.S. Environmental Protection Agency, and by the U.S. Army Corps of Engineers. The farmers' discharges will be regulated by the South Florida Water Management District through permits that will impose BMPs to reduce the phosphorus load in agricultural discharges. In addition, the State will conduct an extensive research and monitoring program to evaluate the ecological and hydrological needs of the Everglades and to develop technology and BMPs that are designed to improve water quality. Interior is currently working with the Department of Justice to determine how the 1992 Consent Decree should be amended in light of the Florida Everglades Forever Act.

#### Cross-cutting Budget Initiatives

The Task Force effort to ensure that scarce resources are being spent in the most efficacious manner possible has led us to a coordinated budget request for FY 1995. The Department of the Interior FY 1995 budget request, now pending before the Congress, contains \$57.3 million for south Florida Ecosystem restoration. The initiative includes funding for the National Biological Survey, the Fish and Wildlife Service, the National Park Service, the United States Geological Survey, and the Bureau of Indian Affairs. The request for \$57.3 million represents an increase of \$28.9 million in comparable

activities over funds appropriated last year, and funds additional research and resource management, improved water quality and quantity studies, continued construction of improved water delivery systems to simulate more natural water flows, and Federal land acquisition.

In addition, the budget request also includes a partnership arrangement with the State of Florida by including \$4.8 million in land acquisition grant funds for up to 25 percent of the cost of the State's purchase of several tracts adjacent to Everglades National Park -- the Frog Pond, Rocky Glades, and 8.5 square mile tracts. In exchange, the State will manage these lands in perpetuity, consistent with the Park's water needs. This land acquisition is authorized by an amendment, P.L. 103-219, passed earlier this year, to the Everglades National Park Protection and Expansion Act of 1989. I want to personally thank the Chairman for his role in securing passage of that important amendment that allows us to enter into agreement to participate with the State to further protect the Everglades and Florida Bay through the purchase of these lands.

While each component of the Department's budget request is important to this effort, I would particularly like to highlight the importance of the additional funds in both the National Biological Survey and the United States Geological

Survey. First, within the request for the National Biological Survey is a \$2 million increase in research activity, specifically to assess the marine ecosystem in Florida Bay. The research in Florida Bay is critical if we are to begin to develop solutions to the collapse of that marine ecosystem. Second, there is an \$8 million increase request for the United States Geological Survey to conduct additional water quality and quantity studies, as well as develop an ecosystem hydrologic history. These funds are important for us to understand the historic water flow and timing questions so that in this era of controlled water delivery, we can most successfully replicate the natural ecosystem.

In mid-July, the budget officers and Assistant Secretaries' alternates in Washington are scheduled to meet to coordinate programs, policies and strategies that relate to programmed budget coordination for the ecosystem restoration initiative. Their aim is to ensure that there are no duplications and overlaps in programmatic activities and funding requests so that each dollar spent maximizes its contribution to the restoration effort.

Mr. Chairman, we share your interest in protecting Everglades and Florida Bay. The Department of the Interior is committed and I am personally committed to ecosystem restoration in south Florida. We recognize that it is a difficult and long-

term program but the trust resources for which we have responsibility and, indeed, the ability of the resources to sustain and nurture life in that environment are at stake. The Department and its Task Force partners are committed to South Florida ecosystem restoration.

I would be pleased to respond to any questions. Thank you.

DEPARTMENT OF THE ARMY  
OFFICE OF THE ASSISTANT SECRETARY OF THE ARMY  
(CIVIL WORKS)

COMPLETE STATEMENT  
OF  
DR. JOHN H. ZIRSCHKY  
ACTING ASSISTANT SECRETARY

BEFORE THE  
SUBCOMMITTEE ON  
NATIONAL PARKS, FORESTS AND PUBLIC LANDS

COMMITTEE ON  
NATURAL RESOURCES  
UNITED STATES HOUSE OF REPRESENTATIVES

ON

ISSUES PERTAINING TO EVERGLADES NATIONAL PARK

WASHINGTON, D. C.  
JUNE 23, 1994

INTRODUCTION

Mr. Chairman and Members of the Committee, I am Dr. John Zirschky, Principal Deputy and currently Acting Assistant Secretary of the Army for Civil Works. Accompanying me today is Colonel Terrence C. Salt, Commander of the Jacksonville District of the Army Corps of Engineers. Thank you for the opportunity to describe the variety of activities that are being undertaken by the Corps of Engineers to enhance and protect the natural resources of the greater Everglades ecosystem, including Everglades National Park and Florida Bay. I will briefly review some background information on the Central and Southern Florida (C&SF) Project that COL Salt provided to this Subcommittee and the Subcommittee on Oversight and Investigations at the Joint Oversight Hearings held in Florida on July 31, 1993. I will also address the progress being made on several of the major environmental restoration studies and projects affecting the Everglades.

Background and History  
Central and Southern Florida Project

Congress authorized the Corps of Engineers to implement a Comprehensive Plan for the C&SF Project in the Flood Control Act of 1948. The plan was authorized to serve the primary purposes of flood control; water supply for municipal, industrial and agricultural uses; prevention of saltwater intrusion; water

supply for Everglades National Park (ENP); navigation; and protection of fish and wildlife resources. Furthermore, the authorization required that a portion of the project cost be borne by a local sponsor. The Central and Southern Flood Control District was created by the State of Florida in 1949 to serve as the local sponsor. It was later renamed the South Florida Water Management District (SFWMD).

The Flood Control Act of 1948 specified that the Corps would operate and maintain the main outlets of Lake Okeechobee and the Water Conservation Areas. Remaining project features would be operated and maintained by the SFWMD in accordance with regulations prescribed by the Secretary of the Army. Since the original authorization, there have been 14 additional Congressional authorizations for additions or changes to components of the C&SF Project.

As it exists today, the C&SF Project encompasses all or parts of 16 counties to include approximately 18,000 square miles. The primary system includes about 1,400 miles of levees and canals, 130 water control structures, and 16 major pump stations. All of the major drainage basins in the project area are now controlled by man.

The pre-project Everglades stretched from the southern shore of Lake Okeechobee southward to Florida Bay and the Ten Thousand Islands. Today, much of the Everglades has been lost to development. Other than direct rainfall, virtually all water entering the Everglades flows through components of the C&SF Project. The Everglades is at the downstream end of this massive multi-purpose project and is impacted by water management decisions related to upstream uses. Inasmuch as the Everglades is a water-based ecosystem, its health is dependent, to a large extent, upon the maintenance of acceptable water conditions. Changes in hydrology caused by the project have contributed to the substantial deterioration of the region's natural resources. On the other hand, the C&SF Project has preserved more than 1,300 square miles of Everglades habitat within the Water Conservation Areas, which together with ENP, form the vast majority of undeveloped wetlands in existence.

The Corps of Engineers is currently undertaking four major efforts directed at modifying the water management system to restore the natural resources of the Everglades. These efforts are the Kissimmee River Project, the Modified Water Deliveries to Everglades National Park Project, the South Dade County (C-111) Project, and the C&SF Project Comprehensive Review Study. Each of these efforts must also preserve the C&SF Project's ability to satisfy the Congressionally authorized project purposes.

### Kissimmee River Project

The Kissimmee River Project was authorized by the Water Resources Development Acts of 1988 and 1992. The project consists of modifying and dismantling portions of the existing water management system to restore the natural hydrologic conditions of the Kissimmee River basin. Additional water storage capacity, allowing more natural water level fluctuations, will be provided in Lakes Kissimmee, Cypress, and Hatchineha, in the headwaters of the Kissimmee River. In the headwaters area, discharges to the Kissimmee River will be made more natural through modified operations. Project components include acquisition of flowage easements, improvements to canals joining the lakes, and construction of a new outlet structure. When completed, the headwaters features of the project will restore 27,000 acres of wetlands ecosystem along with the associated wildlife, fishery, water quality, and aesthetic values in the Kissimmee River floodplain. In the lower Kissimmee River, the project consists of backfilling about 29 miles of the existing flood control canal and restoring flow to about 56 miles of the original river channel. The entire Kissimmee River Project will result in about 35,000 acres of restored wetlands in the floodplain, including the 19,000 acres directly restored by the project.

Construction of the Kissimmee River Project will take approximately 10 to 15 years. The total project cost is estimated at \$511 million (including inflation during construction). A Project Cooperation Agreement, executed in March 1994 between the Corps of Engineers and the South Florida Water Management District, defines respective agency responsibilities for the project implementation. Cost sharing for this project is 50 percent Federal - 50 percent non-Federal.

Groundbreaking for the project was held on April 23, 1994, with the initiation of construction of a 1,000-foot-long test fill section. This feature will provide information on the most efficient construction method, compaction of backfill material, sedimentation, and biological responses. Construction of the test section is now nearing completion.

### Modified Water Deliveries to Everglades National Park

The Modified Water Deliveries to Everglades National Park Project was authorized by the Everglades National Park Protection and Expansion Act of 1989. This act authorized the Secretary of the Army to construct modifications to the water management system to improve water deliveries into ENP's Shark River Slough. It also authorized the Secretary of the Interior, with cost sharing by the State of Florida, to acquire approximately 107,600 acres of land in the East Everglades for incorporation into ENP.

The purpose of the Modified Water Deliveries Project is to restore more natural hydrologic conditions in the southern Everglades insofar as practicable. The project will restore or enhance more than 300,000 acres of Everglades habitat in Water Conservation Area No. 3, in the existing ENP area, and in the East Everglades expansion area. The timing, volume, and location of water flows to Shark River Slough will more closely approximate those that occurred prior to construction of the existing water management facilities.

The project features will provide much greater operational flexibility, so that, as additional data are obtained and evaluated, water deliveries can be modified as appropriate. An Experimental Program of Modified Water Deliveries to ENP has been underway since 1985. It is being accomplished through an iterative testing process, with each test being designed based on information obtained in previous iterations. All iterations of the testing program have been implemented through cooperative efforts of the Corps, South Florida Water Management District and the National Park Service. To date, the testing process has substantially improved hydrologic conditions within Shark River Slough by restoring more natural conditions. Additionally, important data are being obtained that are assisting in ongoing operational decisions. I'll discuss the expansion of the test to include Taylor Slough later in my presentation.

In addition to restoring natural hydrologic conditions in the Everglades, the Modified Water Deliveries to ENP Project includes measures designed to protect adjacent private property from adverse impacts caused by the project. The plan includes construction of a levee, canal and pump station to prevent or mitigate adverse impacts to a residential area referred to as the 8.5-square-mile area.

In March 1994, the Everglades National Park Protection and Expansion Act of 1989 was amended by Public Law 103-319 to authorize the Secretary of the Interior to utilize \$5 million appropriated for this project in fiscal years 1991 through 1994 to provide Federal assistance to the State of Florida for land acquisition. Federal assistance was authorized to provide up to 25 percent of the total acquisition cost. The authorized land acquisition included the 8.5-square-mile area, the Rocky Glades agricultural area, and the Frog Pond.

The Modified Water Deliveries to ENP Project can accomplish its objective of restoring more natural water conditions in Shark River Slough with either alternative for the 8.5-square-mile area -- acquisition or structural flood mitigation. At present, engineering studies are underway that are necessary for either alternative. Construction of the structural flood mitigation plan is scheduled to be initiated in fiscal year 1997. Therefore, a decision to acquire the land or provide structural

flood mitigation prior to June 1995 would enable efficient budgeting and planning. COL Salt has been working with Congressional interests, Governor Lawton Chiles' Office, South Florida Water Management District, Everglades National Park, and Dade County to insure that all necessary information is available for the decision-making process.

#### South Dade County (C-111) Project

The C-111 General Reevaluation Report (GRR) proposes a plan for the restoration of more natural flows to ENP's Taylor Slough. This project was also authorized, in part, by the Flood control Act of 1968 and the Everglades National Park Expansion and Protection Act of 1989. Hydrologic data indicate that water levels in Taylor Slough have been substantially lowered as a result of the C&SF Project. There is also evidence to suggest a decline in the natural resources of the Everglades basin and Florida Bay.

The recommended plan in the GRR consists of construction of a detention/retention area along the east edge of the ENP boundary and a transition area separating agricultural lands to the east. This would allow natural water level fluctuations in Taylor Slough within ENP and would maintain flood control for agricultural lands to the east. It should be noted that this project would require the acquisition of about 12,000 acres of agricultural lands in the Rocky Glades agricultural area and the Frog Pond. Distribution of the final GRR and EIS and initiation of a 30-day public review period is scheduled for June 30, 1994.

Also in regards to Taylor Slough, a new iteration of the Experimental Program of Modified Water Deliveries to ENP was initiated in June 1993. We have tested alternative strategies for delivering water to Shark River Slough since 1985. The latest iteration added a test of a new plan for delivering water, through increased flows, to Taylor Slough. Additional pumping units have been installed at the existing pump station to more than double pumping capability. The operating criteria for the test were carefully designed to avoid adverse impacts to adjacent agricultural areas, including the Frog Pond.

Throughout the Taylor Slough test, conditions have been quite wet and large volumes of water have been discharged. To facilitate flows into the slough, cattails have been removed immediately downstream of the pump station. Also, a section of the old Ingraham Highway in ENP will be removed to prevent the blockage of flows. The test has been successful in its goals of more closely approximating natural water conditions in Taylor Slough and enabling the collection of hydrologic and ecologic data that will be used in the design of final operating plans for the project.

Central and Southern Florida Project Comprehensive Review Study

In June 1993, the Corps initiated the reconnaissance phase of the comprehensive restudy of the C&SF Project, including the Everglades and Florida Bay. The comprehensive study was authorized by Section 309(1) of the Water Resources Development Act of 1992, and two House Committee on Public Works and Transportation resolutions, both dated September 24, 1992.

The reconnaissance study is addressing the following essential tasks:

- o The definition of problems and opportunities, and identification of potential solutions;
- o A determination of whether planning should proceed further, into a feasibility phase, based on a preliminary appraisal of consistency with Army policies; costs, benefits, and environmental impacts of the identified potential solutions;
- o An estimate of time and costs for the feasibility phase; and
- o An assessment of the level of interest and support of non-Federal interests in the identified potential solutions.

This reconnaissance study is being closely coordinated and developed in partnership with the primary local public agency - the South Florida Water Management District - as well as other key Federal agencies, including the National Park Service, the Fish and Wildlife Service, the National Marine Fisheries Service, and the Environmental Protection Agency. These agencies have provided study team members that actively participate in the day-to-day study process on either a full-time or part-time basis. Study activities are also being coordinated with the Federal Task Force on South Florida Ecosystem Restoration.

The public involvement program for the study is reaching out to all concerned interests, including environmental and developmental interests, State and local agencies, as well as interested members of the general public, to ensure that the widest range of views and information is available and considered in decision-making. The first round of public involvement was conducted through a series of ten public meetings in December 1993. We received extensive input during those meetings that assisted in the development of the planning objectives for the study. The second round of public meetings is scheduled for June 27-30, 1994. Planning objectives will be reviewed and discussion of alternative plans will be initiated. The final round of public involvement will be conducted after the draft report has been distributed later this year.

Federal Interagency Task Force  
on  
South Florida Ecosystem Restoration

On September 23, 1993, an Interagency Agreement was executed by Assistant Secretaries of the Departments of Agriculture, Army, Commerce, Interior, and Justice and the EPA. The agreement established the Federal Interagency Task Force on South Florida Ecosystem Restoration. The Task Force was established in response to Interior Secretary Bruce Babbitt's recognition of the need for such a group. The purpose of the Task Force is to coordinate the development of consistent policies, strategies, plans, programs, and priorities for addressing the environmental concerns of the South Florida ecosystem.

In response to a request from Bonnie Cohen, Assistant Secretary of Interior for Policy, Management and Budget, I have agreed to detail COL Salt to serve as the Executive Director of the Task Force following his change of command from his current position as District Engineer of the Jacksonville District.

In his new position, COL Salt also will devote 25 percent of his time to assembling and leading a Corps task force to review the environmental policies of the Civil Works program. The general charge of the Corps task force will be to determine whether the Civil Works program is fulfilling its statutory environmental missions in the best possible fashion.

Conclusion

Mr. Chairman, that concludes my statement. I would be happy to answer any questions.



# Department of Justice

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STATEMENT OF

MYLES FLINT

DEPUTY ASSISTANT ATTORNEY GENERAL  
ENVIRONMENT AND NATURAL RESOURCES DIVISION

BEFORE THE

SUBCOMMITTEE ON NATIONAL PARKS, FORESTS  
AND PUBLIC LANDS  
COMMITTEE ON NATURAL RESOURCES  
U.S. HOUSE OF REPRESENTATIVES

CONCERNING

THE EVERGLADES NATIONAL PARK

PRESENTED ON

JUNE 23, 1994

Mr. Chairman and members of the Subcommittee:

Good afternoon. I am Myles Flint, Deputy Assistant Attorney General of the Justice Department's Environment and Natural Resources Division. I am pleased to have this opportunity to appear before the Committee today on behalf of the Department to discuss the implementation of the Everglades water quality settlement. The Justice Department concurs with and supports the testimony of the Department of the Interior, the Army Corps of Engineers, the Environmental Protection Agency and the National Oceanic and Atmospheric Administration. It is not my intent to reiterate those agencies' testimony about Everglades restoration. Instead, I will address only specific measures of direct concern to the Department of Justice, particularly the settlement of the litigation regarding the Everglades, and respond to the specific questions from the committee concerning matters within the responsibilities of the Justice Department.

I. FEDERAL WATER QUALITY SETTLEMENT:

As the Committee is aware, one major step in the process of restoring the Everglades was a lawsuit brought by the United States against the South Florida Water Management District and the State of Florida. The purpose of that lawsuit was to clean up the agricultural pollution, specifically phosphorus, that has degraded Everglades National Park and the Loxahatchee National Wildlife Refuge. United States v. South Florida Water Management District, et al., No. 88-1886-CIV (S.D. Fla.) With the assistance of Governor Lawton Chiles and Carol Browner, then Director of the Florida Department of Environmental Regulation,

that litigation was settled and the State of Florida began to work with the federal government to protect this unique ecosystem. When the United States and the Florida agencies settled the federal Everglades water quality suit, the government parties agreed on the best technology available for reducing by 80% the phosphorus loads in the Everglades from the Everglades Agricultural Area south of Lake Okeechobee. There appeared no prospect at that time for reaching such a settlement with the agricultural interests, and the settlement did not include them. Instead, the settlement provided for implementation of the agreement through the state's administrative process, where the agricultural interests' opportunities to challenge and influence implementation under state law were preserved.

II. AGRICULTURAL CHALLENGES:

The agricultural interests, primarily the Florida sugar cane industry, exploited these opportunities zealously. Agricultural challengers filed over thirty lawsuits in state and federal fora to block implementation of the settlement. Their primary challenges were brought in the state Division of Administrative Hearings concerning the South Florida Water Management District's Everglades SWIM Plan and the Florida Department of Environmental Protection's Interim Permit. Sugar Cane Growers Cooperative of Florida, Inc., et al. v. South Florida Water Management District, et al., Nos. 92-3038, -3039, -3040, -6796, -6797, -6799, -6800. Relaxed rules of evidence and procedure and a plenary grant of jurisdiction governed these

proceedings. Consequently, despite the efforts of the state agencies as well as those of the United States and other intervenors supporting the settlement, the administrative challenges became protracted and complicated, with voluminous discovery. This litigation delayed implementation of the settlement and proved expensive and time-consuming for the government parties.

III. MEDIATION:

By early 1993, the state implementation process had bogged down. In April of that year, the government parties agreed to a proposal by agricultural challengers to stay the litigation to pursue mediated settlement negotiations. Over the next nine months, officials from the Department of the Interior and the Department of Justice, as well as EPA and the Army Corps of Engineers, personally spent substantial time in direct negotiations with principals for the agricultural industry, the District, the State, and environmental and tribal groups. Mediation bore substantial fruit. In July, 1993, the United States and the other major parties reached an agreement in principle on the major elements of a global settlement, including the critical element of agricultural financial responsibility for clean-up costs. In a Statement of Principles, the major parties endorsed the Technical Plan, a network of treatment marshes designed to cleanse greater volumes of water and to provide additional "hydroperiod" benefits -- water quantity, distribution, and timing -- for the Everglades. In January 1994,

federal officials reached settlement with the largest of the sugar cane industry parties, Flo-Sun, Inc.

IV. RESUMPTION OF LITIGATION:

Mediation, while constructive, did not fully resolve all litigation, and when they reached an impasse in December 1993, the parties resumed intensive preparations for trial. The federal team of eight attorneys participated in several hundred days of deposition over the three months preceding the scheduled trial date of April 25, 1994. Then, on April 15, 1994 -- ten days before the scheduled trial -- the Florida legislature passed the Everglades Forever Act. The Act statutorily precludes the pending administrative challenges.

V. STATE LEGISLATION:

The Everglades Forever Act adopts key features of the settlement agreement. The Act reaffirms the on-farm best management practice (BMP) requirements earlier imposed by state regulation pursuant to the settlement agreement. The Act further provides several benefits not provided under the settlement and, thus, not available through the litigation. The Act incorporates the mediated Technical Plan, requiring implementation of off-site constructed wetlands (stormwater treatment areas or STAs) expected to provide the same water quality benefits provided under the settlement as well as additional hydroperiod benefits and a 28% increase in water deliveries. The Act also provides incentives for voluntary implementation of additional on-farm BMPs, consistent with the Statement of Principles. Further, the

Act expressly extends to the Water Conservation Areas ("WCAs") the protections afforded the Park and the Refuge under the settlement. Finally, the Act provides multiple funding mechanisms for the clean-up program not addressed under the settlement agreement, and mandates a substantial agricultural financial contribution.

Although the settlement agreement provides deadlines for clean-up that are four years ahead of those under the Act, several of these years already had lapsed during administrative litigation. Further, the Act eliminates or streamlines several implementation steps under the settlement that likely would have delayed clean-up several more years. Under the settlement, agricultural funding would likely have been provided through complex, time-consuming administrative proceedings and review. The Act legislates such funding and provides an exclusive remedy for challenging the agricultural tax in state circuit court. Further, the Act codifies the elements of the clean-up program, eliminating the need to wait for conclusion of administrative proceedings on a SWIM plan or DEP permit. Finally, the Act makes findings of fact confirming the need for cleanup and hydroperiod remediation, the suitability of the clean-up program as a remedy for these problems, and the propriety of the terms of the Statement of Principles as a basis for remediation. Although these findings don't entirely preclude the possibility of future litigation over implementation, they should greatly reduce the number and complexity of issues in such litigation, if any.

**VI. PRESENT STATUS OF EVERGLADES LITIGATION:**

On June 10, 1994, the administrative hearing officer dismissed the pending administrative challenges in light of the enactment of the Florida Everglades Forever Act. The agricultural interests are dismissing collateral settlement challenges and related actions voluntarily. Litigation by land owners in the "Frog Pond" area east of the Everglades also is being dismissed voluntarily. The only litigation that remains pending are cross-appeals before the 11th Circuit concerning the federal settlement, and an action in federal court by the Miccosukee Tribe challenging the January 1994, Flo-Sun settlement agreement.

**VII. IMMINENT TASKS:**

Presently, the government parties are preparing proposed modifications to the federal settlement agreement and consent decree to resolve the differences between the Act and the settlement agreement with respect to the size and location of the STAs and the schedule for their implementation. The federal government, through the Technical Oversight Committee provided under the settlement, will have a continuing role in reviewing implementation of the clean-up for consistency with the consent decree.

**VIII. ECOSYSTEM MANAGEMENT:**

The commitment of this Administration to ecosystem management represents another major step in addressing the needs of the ecosystem of South Florida. The Department of Justice has

joined the four other agencies represented here and the U.S. Department of Agriculture to create the South Florida Ecosystem Restoration Task Force. This Task Force is committed to working with the State, local, and tribal governments, the water management authorities and public and private groups to develop and implement a comprehensive plan for restoring the ecosystem. Most importantly, from my point of view, the Task Force will also coordinate agency policies and programs to improve the administration and enforcement of environmental laws throughout the ecosystem.

That completes my testimony, Mr. Chairman. I would be pleased to answer any questions you might have.

TESTIMONY OF  
KATHARINE KIMBALL, DEPUTY ASSISTANT SECRETARY  
FOR OCEANS AND ATMOSPHERE  
NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION  
U.S. DEPARTMENT OF COMMERCE

BEFORE THE  
SUBCOMMITTEE ON NATIONAL PARKS, FORESTS AND PUBLIC LANDS  
COMMITTEE ON NATURAL RESOURCES  
U.S. HOUSE OF REPRESENTATIVES

JUNE 23, 1994

Mr. Chairman and members of the Subcommittee:

I am Katharine Kimball, Deputy Assistant Secretary for Oceans and Atmosphere. I am pleased to be here today representing the National Oceanic and Atmospheric Administration and will discuss the health of the Florida Bay ecosystem and related issues. NOAA is responsible for managing living marine resources of the Florida Keys National Marine Sanctuary and Florida Bay. Our interests include managing the coral reefs and other nationally significant marine resources of the sanctuary and managing the Bay's important commercial fisheries. In addition, NOAA, in partnership with the State of Florida, administers the Coastal Zone Management Act to manage land and water uses affecting Florida's coastal resources.

My testimony today will focus primarily on Florida Bay and the Florida Keys National Marine Sanctuary. The concerns that I discuss are based on NOAA's stewardship and natural resource trusteeship responsibilities but are applicable to the entire South Florida ecosystem of which the Everglades National Park is

a significant component. After briefly discussing the sanctuary, I will provide an assessment of the condition of the Bay and its living resources. I will also emphasize the important work being undertaken by an interagency task force established by Secretary of the Interior Bruce Babbitt last year to facilitate restoration of the South Florida ecosystem.

The Florida Keys National Marine Sanctuary and Protection Act, which was signed into law on November 16, 1990, provides protection to unique and nationally significant marine environments, including seagrass meadows, mangrove islands, extensive hardbottom habitat, patch reefs, and the Nation's only living coral reef tract that lies adjacent to North America. These marine environments support rich biological communities possessing extensive conservational, recreational, commercial, ecological, historical, scientific, educational, and aesthetic values that give this area special national significance. As the marine equivalent of tropical rain forests, these marine environments support high levels of biological diversity and are fragile and easily susceptible to damage from human activities.

The sanctuary extends 220 miles south-southwest from the southern tip of Florida, encompassing the waters of the entire Florida Keys archipelago. The boundary of the sanctuary runs approximately along the 300-foot depth contour from Fowey Rocks off Miami, extending south and west, encircling the Dry Tortugas

National Park, and extending along the north side of the Florida Keys to a boundary contiguous with the Everglades National Park. Biscayne, Everglades, and Dry Tortugas National Parks are not included within the boundary of the sanctuary. All other Federal refuges, state parks, and aquatic preserves fall within the sanctuary.

#### ECOSYSTEM

The coral reefs of the Florida Keys comprise the downstream component of a vast ecosystem that originates north of Lake Okeechobee, beginning at the headwaters of the Kissimmee River and extending southward through the Everglades, into Florida Bay, and continuing to the offshore reef tract. This highly diverse ecosystem supports valuable commercial and recreational fisheries and forms the economic basis for the number one industry in the Florida Keys which is tourism and recreation. For example, over six million tourists visited the Keys in 1992 with a direct spending impact of almost \$800 million.

Historically, the major components of the South Florida ecosystem have been linked through the flow of fresh water from Lake Okeechobee through the Everglades into Florida Bay, where it eventually mingles with Gulf of Mexico waters before moving from the Bay through passes in the Keys onto the seagrass beds, coral reefs and other nearshore habitats. This flow has been interrupted by a variety of human manipulations in South Florida,

resulting in inadequate water deliveries that no longer follow a natural hydro-period (flow pattern). One result is that Florida Bay, which used to be estuarine in salinity, now exhibits high salinities throughout the year and frequently displays hypersaline conditions as a result of decreased freshwater inflow.

#### THE PROBLEM

An unprecedented consensus now exists among scientists and resource managers that serious and progressive degradation is occurring within the Florida Bay ecosystem, and the entire ecosystem may collapse. The extraordinary magnitude of this crisis is jeopardizing a diverse and unique ecosystem that is critically important to the economy of South Florida and the survival of the Keys.

Scientists and managers agree that this crisis is a direct result of flood control and other water management measures that have changed both the quantity and quality of the freshwater flowing into the Everglades National Park and then the coastal habitats. Agricultural practices have substantially reduced the amount and the quality of freshwater flowing into the Everglades/Florida Bay hydrological system. Likewise, the actual and potential adverse effects of Florida Bay degradation on the marine resources of the sanctuary have been well documented. As a result, decisions regarding quantity, quality, timing and distribution of

freshwater inflows into the Everglades and Florida Bay is of direct and immediate concern to the management of the Florida Keys National Marine Sanctuary.

ASSESSMENT OF THE CONDITION OF THE BAY AND ITS LIVING RESOURCES

There are numerous examples that demonstrate how changes in the delivery and quality of freshwater to Florida Bay are adversely affecting the ecological resources and economic viability of the region and the sanctuary. For example:

1. Human influence on the quality and quantity of the water reaching the coral reef tract has resulted in an alarming rate of decline in the health of the corals. This decline has been scientifically documented over the last decade by Dr. Jim Porter on several reefs in the Florida Keys, with the greatest rate of decline being recorded at Looe Key Reef where we know the waters of the Gulf and Florida Bay flow. The decline reported by Dr. Porter coincides with anecdotal observations made by many knowledgeable scientists who have visited Looe Key Reef in recent years.

2. Tortugas pink shrimp landings averaged over 10 million pounds annually during 1963-1980. Since then, annual landings have equaled that average only once, production has been less than eight million pounds per year, and severe drops below five million pounds per year were seen during 1988-1991. Tortugas

shrimp fishery production appears to be directly or indirectly linked to freshwater inflow into Florida Bay, the largest nursery area for juvenile pink shrimp in South Florida. While exact mechanisms are not yet known, higher rainfall levels and higher levels of freshwater generally lead to greater pink shrimp production and the lack of freshwater results in less production. In addition, the loss of seagrass habitats has likely exacerbated the decline in pink shrimp production, which appears to have begun before the seagrass die-off.

Research supported by the National Park Service, and carried out by the National Marine Fisheries Service during 1984-1985, demonstrated that the western portion of Florida Bay, adjacent to the Gulf of Mexico, and channel habitats throughout the Bay consistently supported the highest diversity of fish. The channel areas and basins in western Florida Bay also displayed the greatest diversity and density of seagrasses. Statistical analyses indicated close relationships between seagrass abundance and the abundance and diversity of fish populations, including gray snapper and spotted seatrout. The basins in western Florida Bay currently undergoing seagrass die-off and secondary loss of seagrasses as a result of increased turbidity are those areas that had the highest diversity and densities of fishes.

In Florida Bay, the turtle grass (*Thalassia*) die-off has led to increased acreage of non-vegetated sediments. Loss of seagrass

habitat will lead to reduced fisheries productivity, both short-term (as denuded areas take time to recover) and long-term (if reduced water clarity prevents recolonization or induces further die-off).

Quantitative sampling in Florida Bay basin habitats at water depths between 1.0 and 1.5 meters has shown that the communities are dominated by small forage fishes and that there have been shifts in population densities, and diversities. Densities are highest in unimpacted turtle grass habitats and lowest in the "new" colonizing habitats.

Thus, it appears that one impact of the seagrass die-off may be a decrease in forage fish in western Florida Bay basins. There also appears to have been a shift in size of some of the fishes and shrimp, with smaller organisms present in the die-off and algae covered bottom than in the turtle grass. These data suggest increased predation pressure in the die-off and newly colonizing areas. Current sampling in seagrass habitats immediately adjacent to mangrove islands and away from the seagrass die-off is finding large numbers of juvenile fish and shrimp indicating possible shifts in the location of populations from stressed habitats within the basins to those in close proximity to mangroves.

3. Seagrass habitats, which dominated the sea floor of Florida Bay, have changed from a mixture of predominately three species (turtle grass, shoal grass, and manatee grass) to largely monospecific meadows dominated by turtle grass. Since the mid-1980s, the generally monospecific turtle grass habitats, particularly in the western portion of the Bay, have been undergoing a die-off with large areas of unvegetated bottom being the end result. Coinciding with this die-off has been an increase in turbidity from both resuspended carbonate sediments and blooms of microscopic algae.

In addition, there are water quality problems with nutrients entering the nearshore waters from anthropogenic sources. The Water Quality Protection Program drafted by the Environmental Protection Agency and the State of Florida Department of Environmental Protection for the Florida Keys National Marine Sanctuary identifies numerous point sources and literally thousands of potential non-point sources of nutrients from anthropogenic origins that may be contributing to the eutrophication of the nearshore waters of the Keys. The impact of these problems on the nearshore habitats and coral reefs of the Florida Keys is exacerbated by the cumulative impact of deteriorating Florida Bay water as it flows through the Keys.

#### COOPERATIVE EFFORTS

In response to the mounting evidence of systemic degradation and

the urgent need for action to avoid possible ecological collapse, NOAA has been working with other Federal agencies on a South Florida Ecosystem Restoration Task Force. This Task Force, which was convened by Secretary Babbitt just over a year ago, has exhibited an unprecedented level of cooperation and coordination. An Interagency Working Group, established under the Task Force is in the process of establishing a restoration report for the South Florida ecosystem, containing specific short-term and long-term recommendations for ecological restoration activities. NOAA is pleased to be participating in this important interagency effort. The necessary mechanisms for restoring the South Florida ecosystem are identified in a draft report that we expect to be issued within several months.

NOAA is co-chairing the Scientific Working Sub-Group which, in April of this year, produced a comprehensive Science Plan for Florida Bay consisting of a consensus set of recommendations for research, monitoring and modelling in furtherance of the Florida Bay restoration effort.

The South Florida ecosystem was not altered overnight and we must recognize that it will take years to restore the ecosystem. It is important that we move ahead with restoration activities in South Florida after the report is issued. It is also important that we work closely with the State of Florida in this effort. Billy Causey, Superintendent of the Florida Keys National Marine

Sanctuary, serves as NOAA's representative to Governor Chiles' Commission on a Sustainable South Florida. The Commission is charged with developing a state plan for a sustainable South Florida. Along with other Federal agency representatives, NOAA is working to ensure that efforts of the Task Force and the Commission are consistent.

In addition, NOAA has initiated, through its Coastal Ocean Program, a series of South Florida ecosystem research and development activities focusing on understanding and addressing critical scientific and management concerns. This effort includes a research program to characterize and model the environmental conditions of Florida Bay and map the Bay's seagrasses and wetlands. These and other activities are being coordinated with efforts of other agencies through the Task Force.

The uniqueness and irreplaceable value of the Florida Keys marine environment was nationally recognized through the sanctuary designation. In recent months, an unprecedented level of coordination between Federal and state agencies, and involvement by the public, has occurred in order to protect its resources and ensure the livelihood of the Keys community. Yet, unless bold immediate steps are taken to restore the natural hydrological functioning of the Everglades/Florida Bay ecosystem, it is likely

that all our efforts to protect the downstream resources of the Florida Keys National Marine Sanctuary will be in vain.

Both the short-term and long-term measures to restore Florida Bay must be proportional to the scale of the ecological crisis we are currently witnessing in the Florida Bay ecosystem. We can no longer afford to defer concerted action pending further study. Now is the time for bold action to restore clean fresh water to the Florida Bay. A national treasure is at stake.

Thank you Mr. Chairman. I would be pleased to answer any questions from you or other members of the Subcommittee.

TESTIMONY OF  
ROBERT PERCIASEPE  
ASSISTANT ADMINISTRATOR FOR WATER  
UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
BEFORE THE  
SUBCOMMITTEE ON NATIONAL PARKS, FORESTS AND PUBLIC LANDS  
OF THE  
COMMITTEE ON NATURAL RESOURCES  
U.S. HOUSE OF REPRESENTATIVES

June 23, 1994

Good morning, Chairman Vento and members of the Subcommittee. I am Robert Perciasepe, Assistant Administrator for Water at the U.S. Environmental Protection Agency (EPA). I am here today to describe the contributions of EPA to the restoration and protection of the South Florida ecosystem, an important, but very troubled environment.

The south Florida ecosystem is a huge watershed with diversity and complexity found in few other places. The environmental problems facing the ecosystem provide EPA with both a challenge and an opportunity to work with its sister federal agencies as well as with State and local entities. We recognize that the State must be an equal partner in our efforts to restore and protect this unique ecosystem.

EPA has found the South Florida ecosystem to be a challenging arena in which to apply the management techniques we have learned as our programs in pollution control have evolved. In our work there, we are refining and developing the procedures that will be essential as we move to manage other watersheds across the country. In south Florida --

- ▶ we have begun to study a variety of treatment processes, from the wetland treatment systems of the Everglades Agricultural Area to innovative nonpoint source controls to alternatives to

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the traditional septic systems so common in the Keys. We are investing in these studies now, suspecting that the ecological studies we are also beginning will, as they are completed, point toward the need for further pollution reduction;

- ▶ we are conducting and participating in studies to examine the pollution sources and ecological interactions so important to engineering the recovery of an ecosystem. Our mercury studies of the Everglades and the Big Cypress Preserve are giving us an extensive picture of the distribution of this chemical, while our water and resource quality studies are establishing benchmarks for measuring future progress;
- ▶ we have gained immeasurably from the experience and judgements of other agencies. We are enlightened by their perspectives, and we value their ideas. Through the task force, we will look forward to sharing support for the revised practices and new controls that each agency will most certainly need to implement.

We have seen the power of an involved academic community whose insights have identified problems and shortened the search for their solutions, and we have drawn resolve from our interaction with the public, most of whom understand the trouble the natural systems of their region face.

These are what we call "stakeholders", and in complex watershed restoration, where we must both define the interrelated problems and gain acceptance for their solutions, we know that they are all essential members of the team.

South Florida is a hydrologically and biologically linked ecosystem, a watershed that has its headwaters in the Kissimmee River and which drains or is pumped through natural and man-made channels to most of the lower Florida peninsula. This area covers Lake Okeechobee and the agricultural lands and the water conservation areas upstream of the Everglades. Unlike most watersheds that discharge from a single river, this one flows in

many directions to the sea. What remains of its natural outlet, flows to Florida Bay and then through the Florida Keys.

South Florida is the home of the largest wilderness east of the Mississippi. This wilderness is the most significant breeding ground for our wading birds, and the principal nursery of the renowned Florida commercial and sport fisheries. It is also a region important to people. It is the home of two Indian Nations. It is the predominant source of drinking water for the growing population of 5.5 million people in a region that is a major tourist destination and a rich agricultural area.

The pressures of an expanding population have not been kind to the natural balances in the Everglades. Over 90 percent of the wading birds have been lost. Exotic species have intruded into the area. Flow diversions have lowered the water table and disrupted the cycles of wet and dry periods so important to the reproduction and survival of the species that have adapted over the centuries to these cycles. The extent of these disturbances is causing concern that the degradation there may become irreversible.

#### Support of Interagency Restoration Efforts

The natural aquatic environment in the South Florida Ecosystem has been reduced in size and forced to withstand the effects of intense land uses. It has been manipulated with flow diversions that have disrupted natural pulses so essential to the cycles of life. One indicator of this stress is the large numbers of endangered (56) and threatened (29) species that inhabit the area.

EPA has joined other federal and State partners in efforts to re-establish the balance that this ecosystem so obviously needs. EPA is expending \$4.9 million this fiscal year, and expects to continue funding in the coming fiscal year as a part of the White House Ecosystem Management Initiative which includes South Florida.

Although the Task Force has met only once, there is an important underlying philosophy which has guided this effort from the beginning -- that the very capable Regional, Division, District and local staff of the agencies have the expertise and the capability to develop and implement strategies for protection and restoration, when they are empowered to do so. Empowered in this way, the working group has been working intensely formulating the Restoration Plan, and we expect to have it available for public review this summer.

EPA has worked with the Department of the Interior to address the water quality issues raised in the 1988 lawsuit related to agricultural sources. We are pleased with the State of Florida's legislation which implements the consent agreement that was nearly reached, and we particularly note the commitment to long-term protection of the Everglades National Park and the legislative authorization to purchase land in the Frog Pond. Central to this legislation is the commitment to construct nutrient removal systems below the Everglades Agricultural Area. We have worked closely with the State of Florida to establish permit conditions for these facilities and pledged to assist the establishment of nutrient

criteria that will constitute the water quality goals of the future and give perspective to future permitting decisions.

Our staff has been a leader in the preparation of the Interagency Task Force's Ecosystem Restoration Plan for South Florida and is active in the Science Subgroup. Also, we have entered into an interagency agreement with the National Park Service to support water quality monitoring and nutrient studies on the southwest Florida coast and western Florida Bay. We have begun discussions with the National Oceanic and Atmospheric Administration (NOAA) to locate EPA staff with theirs in the Florida Keys.

#### Mercury Pollution

Since 1989, EPA has been concerned about mercury contamination in South Florida. There are fish consumption advisories covering 2 million acres encompassing the Everglades and the Big Cypress National Preserve. These advisories are caused by the accumulation of mercury in the edible tissues of fish in concentrations above Florida fish consumption guidelines. Mercury may be a factor in reduced foraging and reproduction in wading birds. This area contains the highest fish mercury concentrations in the State of Florida. Elevated mercury levels have also been found in the Florida panther, alligators, wading birds and raccoons.

This important contaminant is not found uniquely in South Florida. In fact, widespread mercury contamination in fish in New England and rural New Jersey have been only recently reported.

Sources of the South Florida contamination we are examining include atmospheric deposition from incinerator and power generation emissions, the mobilization of mercury in peat deposits, and various sources of stormwater. South Florida has the largest area of peat deposits in the world, and it contains mercury naturally. The mechanisms through which it is mobilized are one of the subjects of our studies.

We are also contributing to South Florida's restoration through the routine implementation of Clean Water Act programs available to any state. Our section 319 program helps implement nonpoint source controls and our wetland protection program reduces encroachment on wetlands.

Our Wetlands Protection Program has identified and classified wetlands areas in South Florida where this resource is most heavily threatened. Working with the Corps of Engineers, the Florida Department of Environmental Protection and other federal agencies and nonprofit groups, we have completed advanced wetland identifications and are working in four other major areas in South Florida covering almost 300,000 acres. These surveys will better guide our program of reducing encroachment on wetlands and ease the burden of compliance when our maps are used by local planners and the development community.

#### Florida Bay and The Keys

The problems of flow diversions, encroachment and increased phosphorus and mercury concentrations are our principal concern in

the upper and middle parts of the watershed. Unfortunately, some of these are also problems of the lower reaches of the watershed.

The Florida Bay, the Florida Keys, and the coral reefs found south of the Keys are the southern most elements of the South Florida ecosystem, and they too are in trouble. The lower watershed is an ecosystem unique to the continental United States. It is a diverse ecosystem, the intersection of species which range northward with species that are more tropical. It contains the third largest coral reef community in the world, and the only such ecosystem in the continental United States.

This environmental treasure is also an economic engine. The Florida Keys and Florida Bay supports a large commercial fishery and draws tourist in great numbers. There are convenient statistics to illustrate this point. Commercial fisheries so dependent on habitat quality produced income of \$46 million in 1990, and employed one in every eleven workers. A subscriber survey of a national skin diving magazine listed the Keys as the number one dive trip destination in the world. The recreational diving industry contributed \$353 million in 1990 to the economy of the Florida Keys. These industries, and the tourism they attract are obviously dependent upon clean water.

The diversion of fresh water, or the elevated levels of nutrients, or some stressful meteorological event -- or a combination of these things -- have created conditions that are devastating the health and the beauty of the area and threatening the economy of the Keys. It has been called an ecological collapse.

The ecological collapse of Florida Bay is widely acknowledged. Its causes are not completely understood. It seems to have started with stresses of heat, increased salinity, or blooms of algae that clouded the normally clear water of Florida Bay. These stresses are thought to have caused seagrasses to die. As the seagrass decayed, the nitrogen and phosphorus they contained was released into the water column, fueling the growth of more algae which shaded the remaining grasses and caused long periods with little or no dissolved oxygen. The consequence was more seagrass die-off. The loss of seagrasses and the increase in salinity have meant the loss of critical nursery habitat for pink shrimp, an important fishery. As the algae filled the water column, we believed that it choked the sponges that grew on the floor of the Bay. When they died, they no longer provided the refuge needed for critical life stages of the spiny lobster. The mortality of these lobsters is now reflected in dramatically reduced harvests as well.

The reduced commercial harvests are but one of the economic consequences of the impaired ecosystem. We have seen that the huge expanses of the algal blooms in Florida Bay have, at times, moved south through the Keys to cover the Reef Tract where we fear they will impede the growth of corals and the complex marine communities they support. The impacts on commercial fishing and on the recreational diving industry and related tourism may be dramatic.

The Florida Keys National Marine Sanctuary

EPA has special obligations under the 1990 Florida Keys National Marine Sanctuaries and Protection Act. That law requires EPA to work with National Oceanographic and Atmospheric Administration (NOAA) and the State of Florida to both plan and implement a Water Quality Protection Program that includes research, monitoring, waste source reduction, and public education.

Understanding this complex ecosystem will require us to employ the most up-to-date management methods to cross check, share, analyze, and display this information. Recognizing this, we have forged an important cooperative arrangement with the Florida Department of Environmental Protection 's Florida Marine Research Institute under which they will house the information collected in our studies and be responsible for distributing it to those who want access to it. We have designated South Florida as one of the centers of a major data management initiative focusing on the Gulf Coast, and hope to transfer the techniques we develop there to other important ecosystem initiatives.

We are working with NOAA and the State of Florida to finalize and implement the Sanctuary's Water Quality Protection Program, and like other participants in the restoration of South Florida, have begun to make significant progress. We are building toward a continuing ecosystem management program that includes monitoring to confirm the status of the ecological conditions there, and research into the mechanisms of pollutant flows and interactions. The three resources we are now focusing on include the water quality of the

Sanctuary, the distribution and condition of the seagrasses, and the conditions of the hard bottom habitats and the important coral reefs.

As we proceeded with studies to more completely define the status of the marine resources surrounding the Keys, we are continuing to assess the need to reduce waste discharges from the Keys. The Keys generate about 17 mgd of wastewater, and dispose of it in ways that indisputably impact the waters near the shore, and possibly off-shore.

Monroe County is undertaking studies to refine their estimates that there are 24,000 septic systems on the Keys and 5,000 cesspits. Together these on-site disposal systems account for about 7.2 million gallons of wastewater per day. EPA has made a \$500,000 grant to the State of Florida Department of Health and Rehabilitative Services, and is supporting the pilot installation of alternatives to conventional septic systems so that local experience with these systems can facilitate discussions of large-scale implementation.

About 200 sewage treatment plants and stormwater drains serve small installations throughout the Keys and discharge their effluent into 324 Class V injection wells called "boreholes" drilled into the underlying limestone. The package wastewater treatment plants treat about 2.3 mgd. We are studying the fate of these injected wastes in conjunction with the U.S. Geological Survey.

A large conventional sewage treatment plant serves the city of Key West. Our Region IV office is conducting an intensive study of this sewage treatment plant's ocean outfall to evaluate its impact on the local marine environment. This study is a cooperative effort with the City of Key West and NOAA. Tracer studies have identified the areas influenced by this discharge, and studies of its impact are now underway. If we find unreasonable degradation of the marine environment, we have the regulatory authority to place additional limitations on the discharge.

Another important element of our program of water quality protection is public involvement and outreach. EPA has joined with NOAA to support public education and outreach in the Florida Keys. We have contributed support to a television program, produced by NOAA, called "Sounding Line" and are supporting other activities including the organization Reef Relief's Coral Reef Awareness Campaign intended to increase local citizen awareness of the importance of the reefs to the Keys and to provide the understanding essential to the public support of the investments that will be needed to implement controls.

EPA has joined the South Florida Water Management District in support of the Nature Conservancy's Florida Bay Watch Program. This project will train and empower volunteers to monitor water quality and related resources in Florida Bay and adjacent waters. The Nature Conservancy will design and implement a volunteer program to collect observational data such as water clarity and anecdotal information including the location of fish kills, sponge

die-offs, and algal blooms. The program will be designed and coordinated to augment on-going and planned water quality studies.

We believe that our monitoring and research as well as our coordinated efforts to explore ways to improve sewage disposal technology, and to define the impacts of both the ocean and the subsurface effluent discharges, represent a reasonable suite of studies that will lead to appropriate, carefully-defined controls.

In closing, I would like to emphasize that EPA is concerned about the health of the South Florida ecosystem, and that we are actively directing our programs to support the many requirements of the ecosystem's restoration.

We believe that the effort in South Florida needs to become the standard way we approach the management of distressed and threatened watersheds in America. In contrast to our historical and prevailing approach to protecting and restoring water quality, which has proceeded on a pollutant-by-pollutant or source-by-source basis, we believe our efforts must become place-based. Watersheds will often be the logical and appropriate unit of management, as in the case of South Florida.

We believe, based upon our experience with such collaborative efforts as the National Estuary Program, that South Florida will benefit from coordination among federal agencies and their collaboration with other stakeholders. Producing a joint problem assessment, and coordinated strategies for restoration, will be critical not only to protected federal parks, reserves and sanctuaries, but other public amenities as well.

We have pressed for Congress' endorsement of the programs and incentives we think are needed to make this experience more universal and to improve upon it through reauthorization of the Clean Water Act. We need to foster strategies that provide for protection of resources as deliberately as we now organize for the restoration of damaged ecosystems. *President Clinton's Clean Water Initiative* can help us focus our programs in this way. The Initiative includes provisions that will strengthen nonpoint source controls on polluted runoff and provide incentives for watershed management.

We hope the Subcommittee will consider both the important opportunity of our efforts in South Florida as well the ways it can promote similar efforts elsewhere.

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# CRS Report for Congress

## The Florida Bay Economy and Changing Environmental Conditions

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June 9, 1994



## SUMMARY

Florida Bay is a large, triangular coastal lagoon located at the southern tip of Florida, between Everglades National Park and the Florida Keys. Substantial changes in the vegetation of this shallow saltwater bay have occurred within the past decade. The mangroves that ring the mudflat islands are dying. The seagrass that carpets much of the Bay began dying in 1987, and the dieoff now affects nearly a quarter of the Bay. This seagrass dieoff is linked to blooms of blue-green algae that are, in turn, linked to a sponge dieoff. Finally, diatom blooms have become increasingly common in the western portions of the Bay since 1979.

Many are concerned that these changes in the vegetation of Florida Bay are affecting the resident fauna. Florida Bay contains resident and transient populations of bottlenose dolphins and provides habitat for the endangered manatee, several endangered sea turtle species, and along the north shore, the endangered American crocodile. The Bay provides feeding and nesting habitat for many bird species, but the number of ospreys and of wading bird colonies has declined. The Bay also provides nursery grounds for many species of finfish and shellfish, as well as habitat for other life stages for some species.

The Bay's finfish and shellfish are important foundations for the two major industries in adjacent Monroe County: commercial fishing and tourism. To date, the only measurable economic losses that coincide with the vegetation change are in commercial fishing, principally from the substantial decline in pink shrimp harvests. The losses since 1986, including indirect and induced effects, total about 500 jobs and \$32 million in annual personal income. However, commercial harvests of spiny lobster, snappers, and groupers -- with about 2,800 primary and secondary jobs and \$20 million in personal income -- are threatened by the vegetative changes.

Tourism is also threatened by the vegetative changes in Florida Bay. It appears that tourism accounts for about a quarter of the Monroe County economy -- 12,000 jobs and \$200 million in personal income. The threat is less direct than with commercial fishing, but is nonetheless real. The algae and diatom blooms have reduced water clarity in an area previously favored by recreational divers because of its pristine waters. The Bay provides habitat for several important sport finfish, such as spotted seatrout and red drum. The changes in the Bay may also threaten the ocean-side coral reefs that attract sport divers.

The imprecision in estimating the tourism economy and in linking it with the vegetative changes makes it difficult to estimate the potential economic effects. Nonetheless, the changes are apparent to tourists and are attracting national attention as an example of ecosystem degradation. Losing a quarter of tourists and seasonal residents is certainly possible. Such a decline would threaten thousands of jobs and tens of millions of dollars in personal income -- probably exceeding the potential losses associated with a decline in commercial fishing. Furthermore, because changes in tourism are likely to lag behind changes in environmental quality, losses in the tourist economy are likely to persist, even if vegetation in the Bay were to recover quickly. Finally, economic declines would reduce local property values and tax collections.

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## **THE FLORIDA BAY ECONOMY AND CHANGING ENVIRONMENTAL CONDITIONS**

### **INTRODUCTION**

Florida Bay is a large, triangular saltwater bay, located between Everglades National Park on the north and the Florida Keys on the southeast. The seagrass in this broad, shallow bay has suffered extensive dieoffs and damage since 1987, causing concern over the future of the commercial fishing and recreation/tourism industries of the area. Furthermore, some have asserted that the seagrass dieoffs and degradation of other resources in and near the Bay are the result of the extensive waterworks put in place since 1950 to control flooding in South Florida.

This report provides a brief overview of the resource conditions of Florida Bay and of the economy of the directly adjacent Monroe County. It does not examine causes of the environmental changes in depth, because of the substantial uncertainty over causes and the ongoing research efforts to document the causes. Rather, it focuses on the environmental changes that have occurred and on the economic changes that have occurred and that may be imminent.

### **PHYSICAL AND BIOLOGICAL RESOURCES**

#### **LOCATION AND PHYSICAL DESCRIPTION**

Florida Bay is a large coastal lagoon located between Everglades National Park, at the south tip of Florida, on the north and the Florida Keys on the southeast. Estimates of its size vary from less than 400,000 acres (600 square miles) to nearly 550,000 acres (850 square miles), because the Bay's western edge merges into the Gulf of Mexico in an imprecise boundary.

Florida Bay is shallow, with average depths estimated at 3 to 6 feet. The Bay contains numerous mud islands, generally fringed with mangroves, and mud shoals. The shallow bottom and the relative clarity of the Bay's water has, in the past, promoted the growth of extensive beds of seagrass throughout the Bay. The waters of the Bay are generally saline, with hypersaline conditions (salt concentrations exceeding average ocean levels) occurring sporadically in various parts of the Bay. The coastal transition zone at the north edge of the Bay has generally brackish, estuarine conditions that differ from the offshore Bay.

Florida Bay is part of a larger ecosystem, linking watersheds from central Florida through the coral reefs on the oceanside of the Florida Keys. One recent assessment noted:

The ecosystems from the Kissimmee River, through the Everglades and the Bay and onto the barrier reefs off the Keys are, in fact, connected and constitute an interdependent landscape-seascape. Yet, to the extent that these environments have been purposefully managed at all, they have been managed as if they were in isolation from one another.<sup>1</sup>

Thus, concern over the biophysical changes in Florida Bay, and the resulting economic impacts, is not limited to the Bay and its users. Rather, management of the lands and waters of southern Florida affects the Bay, and the conditions of the Bay affect the waters of the Keys and the conditions of the reefs, even though these interrelationships are not well defined.

The National Park Service administers the majority of the Bay, as part of the Everglades National Park. Portions along the Keys are part of the Florida Keys National Marine Sanctuary, under the jurisdiction of the National Oceanic and Atmospheric Administration (NOAA). Thus, the Federal Government bears most of the immediate responsibility for management of Florida Bay. However, management of the lands and waters north of the Everglades has been affected by efforts to control floods, to drain wetlands, and to provide water for municipalities, industry, and agriculture. Therefore, decisions by the U.S. Army Corps of Engineers, the South Florida Water Management District, and innumerable private landowners also bear responsibility for the conditions affecting these interrelated ecosystems.

## VEGETATION IN THE BAY

Mangroves generally ring the mud islands, although the island centers are often mats of blue-green algae.<sup>2</sup> There is concern about a dieoff of mangroves, although information on the location and extent of the dieoff seems limited. In addition, there is no scientific consensus on the cause of the dieoff.

The majority of the Bay is carpeted with several species of seagrass, although turtle seagrass (*Thalassia testudinum*) dominates. A seagrass dieoff began in 1987, and continues to spread. The dieoff now affects about 100,000 acres -- 20-25 percent of the Bay. Numerous possible causes have been, and are being, explored, including:

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<sup>1</sup>Donald F. Boesch, Neal E. Armstrong, Christopher F. D'Elia, Nancy G. Maynard, Hans W. Paeri, and Susan L. Williams. *Deterioration of the Florida Bay Ecosystem: An Evaluation of the Scientific Evidence. Report to the Interagency Working Group on Florida Bay*. Unpublished report. Sept. 15, 1993. p. 16. (Hereafter referred to as *Deterioration of Florida Bay*.)

<sup>2</sup>U.S. Dept. of Commerce, National Oceanic and Atmospheric Admin., Sanctuaries and Reserves Division. *Florida Keys National Marine Sanctuary. Draft Environmental Impact Statement/Management Plan*. Feb. 1994. p. 31 (Hereafter referred to as *Florida Keys Sanctuary Draft EIS*.)

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1. A substantial reduction in the frequency of hurricanes and other major storms that clear and thin seagrass beds.
2. Landfill and development in the Keys that alter water circulation patterns and increase local sources of nutrients.
3. An increase in nutrients, especially nitrogen and phosphorus, from agricultural and other activities in the watershed.
4. A reduction in the quantity and change in the timing of freshwater flowing into the Bay, because of the extensive drainage and flood control structures and activities in the watershed.

Various studies are examining these and other possible factors in the continued seagrass dieoff.<sup>3</sup>

The seagrass dieoff has also been linked to other vegetative changes. Blue-green algae blooms have occurred in the eastern and central portions of Florida Bay, and these blooms have been linked to the seagrass dieoff.<sup>4</sup> The seagrass dieoff has also been linked to the recent increase in turbidity (decreased clarity) of the water in an area known for clear water and excellent underwater visibility.<sup>5</sup> These blue-green algae blooms have also been identified as a cause of the dieoff of sponges in Florida Bay.<sup>6</sup>

In addition to the blue-green algae blooms, diatom blooms have occurred in western Florida Bay since 1979, and are becoming increasingly prevalent. Since the diatom blooms began before the seagrass dieoff, and because the seagrass dieoff is generally spatially separated from diatom blooms, these two occurrences appear to be unrelated. Rather, the diatom blooms "may be characteristic of a troublesome and growing trend of coastal eutrophication" (excessive nutrient enrichment) from both natural and anthropogenic sources.<sup>7</sup>

## FLORIDA BAY FAUNA

A diverse fauna of finfish and shellfish, as well as other aquatic animals, inhabit Florida Bay. The Bay provides nursery habitats for spiny lobster, pink

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<sup>3</sup>*Deterioration of Florida Bay*, p. i-ii; Michael B. Robblee, W. Jill DiDomenico, and Louise E. King. *Florida Bay Seagrass Dieoff Studies: An Annual Report*. Homestead FL: Everglades National Park, South Florida Research Center, Oct. 1, 1991.

<sup>4</sup>*Deterioration of Florida Bay*, p. 12.

<sup>5</sup>Tom Armentano, Mike Robblee, Peter Ortner, Nancy Thompson, Dave Ruddnick, and John Hunt. *Interagency Florida Bay Science Plan: Working Draft*. Unpublished report. Jan. 7, 1994. p. 10.

<sup>6</sup>*Deterioration of Florida Bay*, p. 14.

<sup>7</sup>*Deterioration of Florida Bay*, p. 12.

shrimp, stone crab, groupers, snappers, seatrout, snook, and red drum. It is also important for other life stages of these finfish.

The seagrass dieoff and resulting blue-green algae blooms and sponge dieoff are probably reducing the shellfish populations, and may be reducing finfish populations, as well. Commercial landings of shellfish -- spiny lobster, pink shrimp, and stone crab -- in Monroe County have declined substantially since 1985.<sup>8</sup> Landings in the county averaged 17.6 million pounds annually from 1971 to 1985, but only 12.2 million pounds annually from 1986 to 1990, a decline of more than 30 percent.<sup>9</sup> Much of this decline has been in pink shrimp landings, historically the largest commercial fishery in Monroe County; landings in 1990 (4.0 million pounds) were only 25 percent of 1981 landings (15.6 million pounds).<sup>10</sup>

Direct links between the decline in shellfish landings and the seagrass dieoff have not been definitively established. However, pink shrimp juveniles are associated with seagrass, and shrimp harvests have been correlated with freshwater inflows.<sup>11</sup> In addition, sponges are critical habitat for juvenile spiny lobsters. The sponge dieoff that is almost certainly due to the seagrass dieoff and resulting blue-green algae blooms will probably (and may already have begun to) reduce commercial spiny lobster harvests. Finally, declines in the recreational harvests of spotted seatrout and red drum have been reported.<sup>12</sup>

A wide variety of wading birds feed and nest in and around the Bay. To the extent that populations of aquatic species (finfish as well as invertebrates of varying sizes and life stages) have been reduced by the vegetative changes in the Bay, feeding habitat for wading birds is less productive. Furthermore, the mangrove dieoff is reducing nesting sites, and a decline in wading bird nesting around Florida Bay has been reported.<sup>13</sup>

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<sup>8</sup>Commercial landings of shellfish and finfish that depend on Florida Bay habitats might also have declined in other counties, but direct linkages have not been clearly established between Florida Bay's condition and commercial fish landings outside Monroe County.

<sup>9</sup>Chuck Adams. *Economic Activities Associated With the Commercial Fishing Industry in Monroe County, Florida*. Staff Paper SP92-27. Gainesville, FL: Univ. of Florida, Inst. of Food and Agricultural Sciences, Dec. 1992. p. 3.

<sup>10</sup>NOAA Workshop on the Restoration of Florida Bay. (Bradford Brown and Peter B. Ortner, Conveners.) Unpublished report. Miami, FL: July 14-16, 1993. pp. 34-35. (Hereafter referred to as *NOAA Workshop on Florida Bay*.)

<sup>11</sup>NOAA Workshop on Florida Bay, p. 72.

<sup>12</sup>*Deterioration of Florida Bay*, p. 13; *NOAA Workshop on Florida Bay*, p. 35-37.

<sup>13</sup>*Deterioration of Florida Bay*, p. 13.

Florida Bay is also the home to several endangered reptiles: American crocodile; loggerhead sea turtle; green sea turtle; and Kemp's ridley sea turtle. Hypersaline conditions in the transition zone along the north edge of the Bay have affected crocodile nesting patterns.<sup>14</sup>

Finally, Florida Bay provides habitat for two species of marine mammals. The West Indian manatee is an endangered species found throughout the Bay, especially in estuarine habitats, that appears to migrate to warmer waters in the winter.<sup>15</sup> The bottlenose dolphin is also found throughout the Bay, and may include both resident and transient populations.<sup>16</sup> It is unclear whether any of the vegetative changes in Florida Bay have affected either species of marine mammal.

## THE MONROE COUNTY ECONOMY

### OVERVIEW

The economy of Monroe County is highly dependent on the resources of Florida Bay. Monroe County encompasses the western half of the onshore part of Everglades National Park, and all of Florida Bay and the Florida Keys. Dade County lies to the east, and borders on eastern Florida Bay; however, the Dade County economy is dominated by Miami and its environs, and contains no direct human land access to Florida Bay.<sup>17</sup> It appears that environmental changes in the Bay have only a comparatively minor impact on the larger Dade County economy.

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<sup>14</sup>*Deterioration of Florida Bay*, p. 13.

<sup>15</sup>*NOAA Workshop on Florida Bay*, pp. 41-42.

<sup>16</sup>*NOAA Workshop on Florida Bay*, pp. 41-42.

<sup>17</sup>It should be noted that economic activity dependent on Florida Bay probably has linkages beyond the borders of Monroe County. This is particularly true for commercial fishing operations based in Gulf Coast ports north of Monroe County; some depend on species, such as spiny lobster, pink shrimp, and stone crab, reared in Florida Bay nursery habitats. However, without more substantive research on the relationship between fin-fish and shellfish landings in these counties and the Florida Bay habitats, quantitative estimates of the potential economic losses outside Monroe County resulting from the degraded habitats of Florida Bay are infeasible. Suffice it to say that the estimated economic effects on Monroe County probably understate the total regional economic effects of the physical and biological changes in Florida Bay.

The resident population of Monroe County was 79,000 people in 1991.<sup>18</sup> In addition to the year-round residents, seasonal residents (whose residence for Census purposes is elsewhere) may exceed 50,000.<sup>19</sup> The permanent residents had a total personal income in 1991 of more than \$1.6 billion, an average of \$20,332 per capita. This is 7 percent higher than average Florida per capita personal income (\$18,985) and nationwide average per capita personal income (\$19,091).<sup>20</sup>

Personal income has three components: net earnings; dividends, interest, and rent; and transfer payments. Net earnings -- wages and salaries, other labor income, and proprietors' income, adjusted for personal contributions for social insurance and for residence -- is the largest component, accounting for \$782 million (49 percent) of 1991 Monroe County personal income. For comparison, net earnings accounted for 57 percent of all 1991 personal income in Florida, and 67 percent of all 1991 personal income in the United States.

Personal income from dividends, interest, and rent -- earnings from wealth, rather than from labor -- accounted for \$628 million (39 percent) of Monroe County personal income in 1991. This is substantially higher than the 26 percent of Florida personal income and 17 percent of U.S. personal income generated from wealth in 1991, and is at least partly due to the relatively high seasonal population, many of whom rent temporary residences.

Transfer payments -- welfare, unemployment payments, and especially pensions and other retirement income -- provided only \$197 million (12 percent) of Monroe County personal income in 1991. This was substantially lower than the 17 percent of 1991 Florida personal income and 16 percent of 1991 U.S. personal income from transfer payments, although retirement income for temporary residents is typically reported as occurring at their primary residence.

Table 1 presents gross earnings by economic sector for Monroe County in 1991. (Gross earnings differ from the net earnings discussed above, because sectoral earnings data include personal contributions for social insurance, but not certain residence benefits.) The table presents both gross earnings and the share of earnings from each sector, and compares them with average sectoral shares for Florida and for the United States. Table 2 presents 1991 sectoral employment data in a similar format.

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<sup>18</sup>U.S. Dept. of Commerce, Bureau of Economic Analysis, Regional Economic Measurement Division. *Personal Income by Major Source and Earnings by Industry*. Unpublished data. Washington, DC: April 26, 1994. (All data in the Overview are from this source, unless otherwise specified.)

<sup>19</sup>*Florida Keys Sanctuary Draft EIS*, p. 11.

<sup>20</sup>U.S. Dept. of Commerce, Bureau of Economic Analysis, Regional Economic Information System. *Briefs: Monroe, Florida, 1990-91*. Unpublished data. Washington, DC: n.d.

Table 1. Monroe County Gross Earnings in 1991  
(in millions of dollars and percent)

	-- Monroe County --		Florida	United States
	Earnings	Percent		
Total	853.23	100.00%		
Agriculture	0.00	0.00%	1.83%	1.33%
Forestry/Fisheries *	20.20	2.37%	0.98%	0.67%
Mining	0.70	0.08%	0.20%	0.98%
Construction	50.47	5.92%	5.79%	5.33%
Manufacturing Sector				
Nondurable Goods	6.36	0.75%	3.89%	7.43%
Durable Goods	4.02	0.47%	6.35%	11.62%
Service Sector				
Transportation <sup>b</sup>	43.70	5.12%	6.42%	6.70%
Wholesale Trade	20.67	2.42%	6.38%	6.43%
Retail Trade	159.09	18.65%	12.25%	9.66%
F.I.R.E. <sup>c</sup>	11.47 <sup>d</sup>	1.34%	6.47%	6.96%
Services	307.74	36.07%	32.04%	26.32%
Government				
Federal Civilian	40.62	4.76%	2.89%	3.35%
Federal Military	79.92	9.37%	2.02%	1.39%
State & Local	108.27	12.69%	12.50%	11.83%

\*The full title is Agricultural Services, Forestry, Fisheries, and Other.

<sup>b</sup>The full title is Transportation and Public Utilities.

<sup>c</sup>The full title is Finance, Insurance, and Real Estate.

<sup>d</sup>The 1991 income in F.I.R.E. is abnormally low, because of 1991 net losses of \$7.30 million in Real Estate and of \$9.12 million in Holding & Other Investment Companies.

Source: U.S. Dept. of Commerce, Bureau of Economic Analysis, *Regional Economic Measurement Division. Personal Income by Major Source and Earnings by Industry*. Unpublished data. Washington, DC: April 26, 1994.

As is true for the U.S. economy, the Monroe County economy is dominated by businesses in the service sectors. The local economy is particularly dominated by retail trade and services, suggesting a dependence on tourism. (The service sector includes health care, hotels and other lodging, legal and business services, and other such activities.) Commercial fishing is also a foundation of the Monroe County economy. The agricultural services/forestry/fisheries sector in Monroe County is relatively large, and is dominated by commercial fisheries. (Agricultural services dominates this sector in the rest of Florida and nationwide.) Finally, the county has a substantial Federal military presence, but this is unrelated to the existence or condition of Florida Bay, and will therefore not be addressed further in this report.

Table 2. Monroe County Employment in 1991

	-- Monroe County --		Florida	United States
	Jobs	Percent		
Total	48,477	100.00%		
Agriculture	0	0.00%	1.31%	2.24%
Forestry/Fisheries <sup>a</sup>	3,187	6.57%	1.91%	1.07%
Mining	44	0.09%	0.19%	0.72%
Construction	2,680	5.53%	5.79%	4.86%
Manufacturing Sector	717	1.48%	7.45%	13.87%
Service Sector				
Transportation <sup>b</sup>	2,009	4.14%	4.59%	4.76%
Wholesale Trade	848	1.75%	4.80%	4.78%
Retail Trade	11,058	22.81%	18.69%	16.45%
F.I.R.E. <sup>c</sup>	4,376	9.03%	9.55%	7.69%
Services	14,978	30.90%	31.35%	28.11%
Government				
Federal Civilian	1,315	2.71%	1.77%	2.31%
Federal Military	3,174	6.55%	2.00%	1.89%
State & Local	4,091	8.44%	10.61%	11.25%

<sup>a</sup>The full title is Agricultural Services, Forestry, Fisheries, and Other.

<sup>b</sup>The full title is Transportation and Public Utilities.

<sup>c</sup>The full title is Finance, Insurance, and Real Estate.

Source: U.S. Dept. of Commerce, Bureau of Economic Analysis, Regional Economic Measurement Division. *Full-Time and Part-Time Employees by Major Industry*. Unpublished data. Washington, DC: April 26, 1994.

## COMMERCIAL FISHING

Gross earnings from commercial fishing in Monroe County exceeded \$17 million in 1991, accounting for more than 2 percent of gross earnings in the county.<sup>21</sup> Monroe County contributes significantly to gross earnings from commercial fishing in the State, accounting for more than 20 percent of Florida's gross earnings from commercial fishing in 1991.

Despite the importance of this sector in 1991, gross earnings from commercial fishing in Monroe County have declined substantially since the seagrass dieoff began in 1987. In 1986, Monroe County gross earnings from commercial

<sup>21</sup>Commercial fishing includes those activities associated with harvesting and landing commercial fishery products. Onshore processing is included in food and kindred products (a manufacturing sector), while subsequent sales are included in wholesale and/or retail trade (service sectors).

fishing were more than \$31 million, accounting for more than 5 percent of the county's gross earnings that year. Thus, in 5 years, gross earnings in Monroe County from commercial fishing have declined by more than \$14 million (45 percent); because inflation makes 1991 dollars less valuable than 1986 dollars, the effective decline has been even greater -- more than 50 percent.

It is unclear whether the decline in gross earnings from commercial fishing in Monroe County is related to the environmental changes in Florida Bay, because total gross earnings from commercial fishing in Florida declined by a slightly greater amount. Florida gross earnings from commercial fishing in 1991 were \$82.3 million, only 52 percent of 1986 gross earnings (\$158.2 million). It is unclear what has caused this precipitous decline in earnings from commercial fishing in Monroe County and throughout Florida.

In contrast to the decline in earnings, commercial fishing employment in Monroe County has been relatively stable. In 1991, employment in the agricultural services/forestry/fisheries sector totalled 3,187 people, more than 6.5 percent of total Monroe County employment.<sup>22</sup> In 1986, the sector employed 3,408 people, accounting for 8 percent of county employment. Sectoral employment thus declined by 221, only 6.5 percent, while gross earnings declined by about half. Therefore, average earnings per employee (for the whole sector) declined by a third, from \$9,780 per employee in 1986 to only \$6,528 in 1991, excluding additional effective declines due to inflation.

The earnings data are fully consistent with data on finfish and shellfish landings in Monroe County.<sup>23</sup> Nearly 20 million pounds of finfish and shellfish were landed in Monroe County in 1990, about 11 percent of the commercial landings in Florida. However, because of higher values for the shellfish that dominate Monroe County landings, and because of higher average values in Monroe County, the \$48.4 million in dockside value accounted for nearly 25 percent of the value of commercial landings in Florida. Of this, \$16.7 million (34.5 percent) were distributed as earnings to the workers, while the remainder went for supplies, insurance, interest, and boatowner profit (if any).

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<sup>22</sup>Separate data on fisheries employment were not included in the Commerce Department data. However, from 1986 through 1991, commercial fisheries accounted for about 90 percent (plus-or-minus 5 percent) of gross earnings from the agricultural services/forestry/fisheries sector in Monroe County. Thus, employment data for the entire sector are strongly indicative of employment in commercial fishing. In contrast, sectoral employment data for Florida are probably not indicative of commercial fisheries employment, because commercial fishing accounted for only 8 percent (ranging from 5 to 15 percent) of sectoral gross earnings from 1986 through 1991.

<sup>23</sup>Unless otherwise specified, data on commercial fisheries landings are from: Chuck Adams. *Economic Activities Associated with the Commercial Fishing Industry in Monroe County, Florida*. Staff Paper SP92-27. Gainesville, FL: Univ. of Florida, Inst. of Food and Agricultural Sciences, Dec. 1992. 20 pp.

Several finfish species are important Monroe County commercial fisheries. In 1990, snappers, especially yellowtail snapper, accounted for 28 percent of the weight and 49 percent of the value of commercial finfish landings in the county. Monroe County accounted for more than 90 percent of Florida's 1990 commercial landings of yellowtail snapper, and more than half of Florida's commercial landings of two other snapper species. Other important finfish landings in Monroe County include groupers and grunts -- 7 percent of the weight and 9 percent of the value landed in 1990 -- and Spanish mackerel -- 15 percent of the weight and 6 percent of the value landed in 1990.

Finfish landings in Monroe County peaked in the mid-1970s, with nearly 10 million pounds landed annually from 1974-1977. The landings fell sharply in the late 1970s, to less than 6 million pounds annually from 1978-1980, but have recovered since. From 1981 through 1990, finfish landings have averaged 8 million pounds annually, with no discernible trend. Thus, through 1990, changes in the condition of Florida Bay have apparently not affected commercial finfish landings in Monroe County. However, some have suggested that future harvests of snappers and groupers might decline, because the Bay provides important habitat for several life stages for these species, while others have reported declining populations of these and other finfish species.<sup>24</sup>

Shellfish dominate the commercial landings in Monroe County, accounting for 61 percent of the weight and 84 percent of the value of commercial landings in the county in 1990. (In contrast, shellfish accounted for 30 percent of the weight and 56 percent of the value of commercial landings in Florida in 1990.) Spiny lobster, pink shrimp, and stone crab rank first, second, and third in both pounds and value landed in the county in 1990, and sponges (included with shellfish for commercial fisheries reporting purposes) ranked fifth in value. Monroe County accounted for more than 90 percent of Florida's commercial spiny lobster landings, and more than 40 percent of the landings for the other shellfish species, in 1990.

In contrast to finfish landings, shellfish landings have clearly declined in conjunction with the change in condition of Florida Bay. Shellfish landings averaged 17.6 million pounds annually from 1971-1985, with a peak of 22.8 million pounds in 1981. From 1986-1990, however, shellfish landings averaged only 12.2 million pounds annually, with a low of 10.2 million pounds in 1989. Thus, the average decline is more than 30 percent, with a distinct downward trend suggesting even lower commercial shellfish landings in the future. Shellfish landings began declining prior to the 1987 seagrass dieoff, although the landings were still at or above the 15-year average in 1984 and 1985. Studies have noted that pink shrimp harvests began declining after the appearance of the diatom blooms in the western portion of Florida Bay, and seem correlated with the declining freshwater inflows.<sup>25</sup>

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<sup>24</sup>NOAA Workshop on Florida Bay, pp. 35-36, 78.

<sup>25</sup>Deterioration of Florida Bay, p. 14; NOAA Workshop on Florida Bay, pp. 34-35.

While data are not available to examine details of the decline in shellfish landings, several studies have noted the sponge dieoff and the decline in pink shrimp harvests.<sup>26</sup> Thus, two important shellfish species appear to have been directly affected already. However, another source has reported that pink shrimp parent stocks have been rising slowly but steadily since 1960.<sup>27</sup> It may be that pink shrimp harvests have declined because of competition from low-priced shrimp imports, rather than because of reduced stocks, but the data are insufficient to evaluate these alternative explanations.

The most important shellfish species in Monroe County in 1990 -- spiny lobsters, with 27 percent of the weight and 44 percent of the value of all commercial fishery landings -- has apparently not been affected yet. Because of their dependence on sponges during their juvenile stages, however, and because of the sponge dieoff, future harvests of spiny lobsters are very likely to decline, perhaps substantially. When this will occur depends on the time required for spiny lobsters to grow to commercially harvestable size. Thus, the largest commercial fishery in Monroe County in 1990 is threatened by the changes in the environmental condition of Florida Bay, although the magnitude of the threat is unclear, and even an immediate return to pre-1987 conditions might not prevent this anticipated decline.

In summary, commercial fisheries landings and resulting personal income have declined in conjunction with the changes in condition of Florida Bay. The decline in real (deflated) income over the past 5 years has been more than 50 percent. However, the weight of commercial landings -- principally of pink shrimp -- has declined by only about 30 percent. The difference is probably due to the weak economy. (Shellfish is generally recognized as a "superior" good, with rising demand during economic recoveries and falling demand during recessions.) Assuming that the decline in pink shrimp landings is associated with changes in the condition of Florida Bay, as some have suggested, the 30 percent decline in landings is a loss of about \$20 million in gross revenues, and about \$7 million in personal income, from 1986 to 1990.

This decline in commercial fisheries landings only shows the loss to date. Further declines are very possible. The future of pink shrimp landings is uncertain, but the trend appears downward. The importance of Florida Bay for snappers and groupers has been noted, and declining commercial landings of these species are credible, although no quantitative projections have apparently been offered. Given the significant commercial landings of these species (2.7 million pounds worth \$4.5 million -- 58 percent of the value of finfish landings in Monroe County in 1990), the decline in gross revenues and personal income could be significant. More important, however, is the anticipated decline in

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<sup>26</sup>*Deterioration of Florida Bay*, pp. i, 1; *NOAA Workshop on Florida Bay*, pp. 34-35, 72.

<sup>27</sup>U.S. Dept. of Commerce, National Marine Fisheries Service. *Our Living Oceans: The First Annual Report on the Status of U.S. Living Marine Resources*. NOAA Tech. Memo. NMFS-F/SPO-1. Washington, DC: Nov. 1991. pp. 52-53.

landings of spiny lobster due to the sponge dieoff. There appear to be no quantitative estimates of the extent of the sponge dieoff, in either acres or percent, and thus the likely decline in spiny lobster landings is unknown. Given the greater significance of spiny lobster landings (5.3 million pounds for \$21.2 million -- 44 percent of the value of all commercial fisheries landings in Monroe County in 1990), and the stronger ecological linkage indicating a likely decline, the economic impact is likely to be substantial -- several million dollars in gross revenues and in personal income in the county.

## TOURISM

The tourism "industry" is much more difficult to assess than is commercial fishing (or most other industries), because economic data are aggregated by type of establishment or organization, not by type of purchaser (tourist or resident). Tourist expenditures (and the resulting earnings and employment) on food and lodging, for example, are not distinguished from expenditures by residents.

The majority of the tourist economy occurs in two sectors: retail trade, including eating and drinking places, automotive dealers and service stations, food stores, general merchandise stores, and miscellaneous retail; and services, including hotels and other lodging places. These sectors are clearly more important in Monroe County than in Florida or nationwide. (See tables 1 and 2.) These sectors produced \$467 million in gross earnings in 1991, nearly 55 percent of gross earnings in the county. They also employed 26,036 people, nearly 54 percent of total Monroe County employment in 1991. In Florida, these sectors were less important, accounting for 44 percent of gross earnings and 50 percent of employment; nationally, they accounted for only 36 percent of gross earnings and 45 percent of employment.

While it is impossible to know precisely how large the tourist industry in Monroe County is, the millions of tourists<sup>28</sup> and tens of thousands of seasonal residents suggest that the "tourist economy" could directly account for half the expenditures, earnings, and employment in the retail trade and services sectors, and thus could account for a quarter of the Monroe County economy -- more than \$200 million in gross earnings and 12,000 employees. These gross estimates are reasonably consistent with data reported from other sources.<sup>29</sup>

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<sup>28</sup>According to the *Monroe County Statistical Abstract*, more than 6 million tourists visited the Florida Keys in 1990. Cited in: Water Quality Joint Action Group. *Florida Bay and the Monroe County Economy*. Unpublished report. Key West, FL: Mar. 8, 1994.

<sup>29</sup>Continental Shelf Associates, Inc. *Synthesis of Available Biological, Geological, Chemical, Socioeconomic, and Cultural Resource Information for the South Florida Area*. Prepared for U.S. Dept. of the Interior, Minerals Management Service, Contract No. 14-12-001-30417. Jupiter, FL: May 1990. pp. 444-450.

Water Quality Joint Action Group. *Florida Bay and the Monroe County Economy*. Unpublished report, citing U.S. Dept. of Commerce, Bureau of Economic Analysis. Key West, FL: Mar. 8, 1994.

## CRS-13

Evaluating the possible effects of changes in Florida Bay conditions on the tourist industry is further complicated by the indirect linkage between tourism and the quality of the environment. Populations and commercial landings of pink shrimp and spiny lobster, for example, can be correlated with environmental conditions, because their growth and development depend on the condition of their habitats. However, changes in environmental conditions are only one factor, albeit an important one, in people's choices of when and where to recreate. Changing environmental conditions influence recreation choices, but there is not a direct correlation between environmental conditions and recreation use of an area.

The most direct linkages between Florida Bay and tourism in the county are through recreational fishing and diving, which depend on water quality and clarity. Both activities occur on both sides of the Keys -- in Florida Bay and along the reefs on the ocean-side of the Keys. However, the coral reefs depend on water flows from the Bay, and changes in Florida Bay's conditions, or in the ability of water to flow from the Bay between the Keys, may damage the coral reefs.<sup>30</sup> Thus, many major recreational activities at least partly depend on the condition of the aquatic resources of Florida Bay.

The influence of environmental conditions on recreation use also depends on the tourist perceptions. Changes that might damage commercial fishing, for example, might not affect recreation and tourism until the effects of the changes are widely recognized -- through persistent and substantial declines in recreational fish catches, substantial environmental changes that affect water clarity (*e.g.*, widespread algae blooms), and extensive media coverage of the changed conditions (*e.g.*, news magazine stories). Thus, tourism response to changed environmental conditions may be delayed, perhaps by several years.

To date, there is no direct evidence of a decline in the tourism industry of Monroe County. Since 1986, earnings in the retail trade and services sectors that account for most of the tourism economy have grown at rates substantially above the growth rate of the general economy. Employment has also grown, although employment in services declined slightly (0.2 percent) from 1990 to 1991.

Nonetheless, because of the possible delay between changed environmental conditions and recreational activities, a decline in the tourism industry due to changes in the condition of Florida Bay is quite possible. As with potential declines in commercial finfish and spiny lobster landings, there appear to be no estimates of the possible timing or magnitude of a decline in tourism. However, an unknown, but potentially substantial fraction of the industry's roughly \$200 million in gross personal income and 12,000 jobs may be at risk. Furthermore, because of delays between changed conditions and tourism, any decline could persist for perhaps several years even if conditions in Florida Bay improved.

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<sup>30</sup>*Florida Keys Sanctuary Draft EIS*, p. 11.

## SECONDARY EFFECTS

Secondary economic effects are the indirect and induced effects of a change in the direct (or primary) industry; this is also called the "multiplier" effect. Indirect effects are the changes in demand for supplies and thus the impact on suppliers. If commercial fishing declines, for example, the firms that supply and repair gear and boats and that sell diesel fuel and other operating supplies will likely see a decline in demand for their goods and services; declining sales and profits, in turn, often force reductions in the workforce, thus reducing earnings and employment. Induced effects are the changes in the demand for goods and services that result from changes in earnings and employment in the direct and indirect industries. Thus, a decline in a primary industry may precipitate a decline in secondary industries.

Secondary effects are typically estimated using "multipliers" to calculate total changes in demand, earnings, and employment associated with a change in demand in the primary industry. Multipliers that estimate the secondary effect of a change in a primary industry vary widely by industry and region, but generally range from about 0.5 to 2; i.e., for \$1 of lost demand or earnings (or each lost job) in the primary industry, the secondary loss is between \$0.50 and \$2 (.5 and 2 jobs). (Thus, the total economic loss is between \$1.50 and \$3 of demand or earnings -- or between 1.5 and 3 jobs -- counting both primary and secondary effects.)

Multipliers are commonly calculated using an input-output model of the regional economy. Input-output models are quite useful in assessing possible regional economic changes, but also have serious limitations. First, they are static representations of the economy, but economies are dynamic. Secondary impacts are smaller when a regional economy is growing, because the losses (at least the induced impacts) associated with a decline in a primary industry are absorbed by growth in other industries. Second, input-output models assess the existing interdependencies, but the induced effects of lower earnings and employment may be less than calculated by the models because of unemployment insurance, use of savings, and part-time and temporary employment. Because of these problems, multipliers for a given industry and region can differ; for example, the employment multipliers used in studies of the impacts of spotted owl protection ranged from 1.4 to 2.3 total jobs per direct timber industry job (as well as ranging from 4.2 to 16.2 direct jobs per million board feet of timber not harvested).<sup>31</sup>

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<sup>31</sup>U.S. Library of Congress, Congressional Research Service. *Economic Impacts of Protecting Spotted Owls: A Comparison and Analysis of Existing Studies*. [by Ross W. Gorte.] CRS Report for Congress No. 92-922 ENR. Washington, DC: Dec. 7, 1992. pp. 49-60.

## CRS-15

Relevant economic multipliers for commercial fishing and for tourism in Monroe County are virtually nonexistent. One study<sup>32</sup> calculated multipliers for fishery products exported from the county: \$1.49 in total sales for each \$1 of export sales; \$0.59 in total earnings for each \$1 of export sales; and 41 total jobs for each \$1 million of export sales. These multipliers are based on wholesale values, which are calculated from markups on the dockside value of each fishery product; the average markup is 32 percent. If one shifts the wholesale markup to secondary effects (making dockside value the direct output measure of the commercial fishing industry), the total sales is \$1.96 for each \$1 of dockside landings. Earnings would thus be \$0.79 per \$1 of dockside landings and employment would be 54 jobs per \$1 million of landings. Since gross commercial fisheries earnings in Monroe County in 1990 (\$16.7 million) averaged \$0.35 earnings per \$1 of dockside landings (\$48.4 million), total earnings would be \$2.27 per \$1 of earnings in commercial fishing. The employment estimate shows no secondary employment effects; the ratio of commercial fisheries employment (2,666 jobs)<sup>33</sup> to dockside landings (\$48.4 million) in Monroe County in 1990 is 55 primary industry jobs per \$1 million of dockside landings. Thus, since the sales and earnings multipliers are consistent with other data, one would expect secondary effects (deducting effects on the primary industry) from declines in commercial fishing to be \$0.96 in sales and \$1.27 in earnings. However, there would likely be some secondary employment effects, as well -- most likely about 1 secondary job per commercial fishing job.

Estimates of comparable multipliers for tourism in Monroe County, or elsewhere, apparently do not exist. Nonetheless, if tourism in Monroe County declined, the effects would undoubtedly ripple throughout the economy. Because of the relatively low wages in the retail trade and services sectors, the induced impacts might be lower than is typical of primary producing industries. However, supplies account for a relatively high proportion of total sales, and thus the indirect impacts might be relatively higher. Thus, it seems reasonable to assume that the secondary effects of changes in tourism are similar to the secondary effects of changes in other industries -- secondary effects would probably be at least equal to the effects on the primary industry.

## ADDITIONAL IMPACTS

Secondary effects document the indirect and induced economic changes that result from changes in a primary industry, and are typically estimated using an input-output (I/O) model. However, as our understanding of the economic im-

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<sup>32</sup>Chuck Adams. *Economic Activities Associated with the Commercial Fishing Industry in Monroe County, Florida*. Staff Paper SP92-27. Gainesville, FL: Univ. of Florida, Inst. of Food and Agricultural Sciences, Dec. 1992.

<sup>33</sup>The Commerce Department employment data are for the agricultural services/forestry/fisheries sector. The fisheries employment has been assumed to be the same proportion of total sectoral employment that fisheries earnings are a proportion of total sectoral earnings -- 86 percent of the sector in 1990.

pacts of environmental changes expands, the limitations of I/O analyses for estimating economic impacts are becoming clearer. I/O models estimate the primary and secondary economic losses when production in a primary industry is constrained, such as for environmental protection or recovery; I/O models do not estimate the economic benefits of environmental protection (or losses from continued environmental degradation) unless deterioration reaches a finite level from which static comparisons can be made.<sup>34</sup> Three categories of economic impacts have been identified: (a) the indirect costs imposed by environmental degradation on other industries; (b) the aesthetic and health costs imposed on residents by environmental degradation; and (c) the declining existence and bequest values from environmental degradation.

The situation in Monroe County poses special challenges for traditional economic analyses of environmental degradation/protection. Production in the primary industries -- tourism and commercial fishing -- is being constrained by the environmental changes in Florida Bay. To the extent that constrained production can be quantified, the externalities noted above can be captured within the I/O analysis of primary and secondary effects. Nonetheless, the environmental changes in Florida Bay affect the aesthetic and other values. A method for estimating such impacts has been proposed,<sup>35</sup> but the method is very data-intensive and site-specific. Thus, while the changes in Florida Bay may have degraded these values in Monroe County, no estimates of such losses are currently feasible.

One particular local change that may be of profound consequence is the possible effect of environmental changes, and the related economic changes, on real estate values. For many Americans, property is their principal source of savings, and declining property values therefore have a substantial effect on their wealth. One study of the economic effects of spotted owl protection<sup>36</sup> estimated that house prices (and therefore homeowner investment values) decline by 2 percent for each percentage point rise in unemployment; if such a relationship holds true in Monroe County, then residential property values would be expected to decline by 2 percent for each additional 500 jobs lost due to changes in environmental quality (or for any other reason).<sup>37</sup> Furthermore,

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<sup>34</sup>ECO Northwest. *A Method for Estimating the Economic Effects of Habitat Protection*. Prepared for the U.S. Fish and Wildlife Service. Eugene, OR: Jan 1994. 50 p. (Hereafter referred to as ECO Northwest, *Method for Estimating Economic Effects*.)

<sup>35</sup>ECO Northwest, *Method for Estimating Economic Effects*.

<sup>36</sup>Bruce R. Lippke, J. Keith Gilles, Robert G. Lee, and Paul E. Sommers. *Three-State Impact of Spotted Owl Conservation and Other Timber Harvest Reductions: A Cooperative Evaluation of the Economic and Social Impacts*. Contribution No. 69. Seattle, WA: Univ. of Washington, Inst. of Forest Resources, Sept. 1990.

<sup>37</sup>This impact is in addition to the secondary, "multiplier" effect discussed above. The I/O model captures the decline in real estate transactions due to reduced economic activity. However, the estimate with respect to spotted owls, and that may be relevant in

in areas that depend heavily on tourism and recreation, one might expect that a decline in tourism might reduce property values by a larger share. The negative gross earnings (gross losses) in the real estate industry in Monroe County in 1990 (\$0.5 million) and 1991 (\$7.3 million) certainly indicate weak real estate markets that could, in part, reflect public perceptions of the environmental degradation of Florida Bay. However, specific estimates of declines in homeowner investment values due to environmental changes in the Bay apparently do not exist.

Finally, changes in primary industries is of particular importance to State and local governments because of the potential effect on revenues. The State of Florida collects a sales tax of 7 percent; thus, declining sales to tourists in the retail trade and services sectors would reduce State sales tax collections. Of more importance to Monroe County is the 4 percent tourist development tax on all temporary lodging (hotels, motels, guesthouses, and rentals of less than 6 months). A decline in tourism would probably reduce development tax collections proportionally. In addition, much of the local government revenue base is property taxes, with millages ranging from less than 12.5 to more than 17. If, as noted above, real estate values decline due to environmental changes in Florida Bay, then local property tax collections might also decline.

### SUMMARY AND CONCLUSIONS

There is concern about the environmental quality of Florida Bay and its impact on the region's economy. A partial dieoff of the mangroves ringing the islands in the Bay has occurred. A seagrass dieoff in the Bay began in 1987, and has continued to expand. The seagrass dieoff has been linked to blue-green algae blooms in the eastern and central portions of the Bay, and these blooms are blamed for the sponge dieoff. Finally, diatom blooms have become increasingly common in the western portions of the Bay since 1979.

These changes in the vegetation of Florida Bay are, in turn, affecting the fauna of the Bay. The Bay contains resident and transient populations of bottlenose dolphins and provides habitat for the endangered manatee, several endangered sea turtle species, and along the north shore, the endangered American crocodile. The Bay provides feeding and nesting habitat for many bird species, but the number of ospreys and of wading bird colonies has declined. The Bay also provides nursery grounds for many species of finfish and shellfish, as well as habitat for other life stages for some species.

The Bay's finfish and shellfish are important foundations for the two major industries in Monroe County: commercial fishing and tourism. To date, the only measurable economic losses associated with the changed environmental conditions of the Bay are in commercial fishing, principally from the substantial decline in pink shrimp harvests. Since 1986, employment in commercial fishing

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Monroe County, was a decline in personal wealth, which is not measured in an I/O analysis until the property is sold.

has declined by about 10 percent, while personal income in the industry has declined by \$14 million -- about 50 percent (net of inflation). However, some of the decline in income is probably due to the economic recession, and the decline in shrimp harvesting could be due to competition from imports, rather than from environmental degradation. Regardless of the cause, the losses have probably led to secondary (indirect and induced) losses of another 250 jobs and \$18 million. In total, the losses to date amount to about one percent of the employment and two percent of the personal income in Monroe County.

A much larger portion of the Monroe County economy may be threatened by the continued vegetative changes in Florida Bay. The sponge dieoff (linked to the seagrass dieoff and blue-green algae blooms) is a serious threat to the spiny lobster fishery, since the sponges are critical habitat for juvenile lobsters. In 1990, spiny lobsters landings totalled \$21.2 million, contributing nearly \$7.5 million in personal income for the approximately 1,150 workers employed in the fishery. In addition, the Bay is important for life stages of several snappers and groupers (as well as for important sport finfish). Landings of these species totalled \$4.5 million in 1990, contributing more than \$1.5 million in personal income for the approximately 250 workers employed in this fishery. Thus, the continued vegetative changes in Florida Bay could pose a threat to about 1,400 jobs in commercial fishing and the resulting \$9 million in personal income -- about half of the commercial fishing industry in Monroe County.

These possible losses in commercial fishing would also have significant indirect and induced effects. The secondary economic activity resulting from commercial fishing is about \$25 million in gross output, about 1,400 jobs, and more than \$11 million in personal income. These fisheries are unlikely to disappear entirely. However, a collapse comparable to the decline in pink shrimp landings (down 75 percent) would amount to nearly five percent of employment and nearly two percent of the gross earnings in Monroe County.

Tourism is also threatened by the environmental changes in Florida Bay. While precise estimates are impossible, it appears that tourism accounts for about a quarter of the Monroe County economy -- 12,000 jobs and \$200 million in personal income. The threat is less direct than with commercial fishing, but is nonetheless real. The seagrass dieoff and algae blooms have reduced water clarity in an area favored by recreational divers because of its pristine waters. The Bay provides habitat for several important sport finfish, such as spotted seatrout and red drum. The changes in the Bay may also threaten the ocean-side coral reefs that are important to sport divers.

The imprecision in estimating the magnitude of the tourism economy and in linking tourism with the environmental changes in Florida Bay makes it difficult to estimate the potential economic effects. Nonetheless, the changes are apparent to tourists, and the changes are attracting substantial national media attention as an example of ecosystem degradation. Over time, a loss of a quarter of tourists and seasonal residents is possible, and would threaten thousands of jobs and tens of millions of dollars in personal income -- probably exceeding the potential primary and secondary losses associated with declining commercial

fisheries. Furthermore, because changes in tourism are likely to lag behind changes in environmental quality, losses in the tourist economy are likely to persist, even if vegetation in the Bay were to recover quickly.

If such declines were to occur in tourism and commercial fishing, the losses would amount to about 5,000 jobs -- more than 10 percent of employment -- and about \$75 million in personal income -- nearly 10 percent of gross earnings -- in the county. In addition, property values and local tax collections would probably decline, putting additional financial pressures on local governments when the demand for additional social services is rising. Finally, the area's aesthetics and the existence and bequest values of a functioning ecosystem are threatened by the changes in Florida Bay.



## United States Department of the Interior

OFFICE OF THE SECRETARY  
Washington, D.C. 20240

June 23, 1994

### Outline of Florida Everglades Legislation

On May 3, 1994, Florida Governor Lawton Chiles signed into law the Everglades Forever Act (Act), which provides for an extensive restoration plan to improve water quality, water quantity and hydroperiod in the Everglades. The Act is based upon the settlement agreement known as the Statement of Principles entered into in July 1993 by the Department of the Interior (Interior), the Florida Department of Environmental Protection (DEP), the South Florida Water Management District (District) and certain agricultural interests in the Everglades Agricultural Area (EAA).

The Everglades in South Florida is a unique wetland and wildlife resource that is a natural treasure. It contributes to South Florida's water supply, flood control, and recreation. Interior has responsibility for two of the largest components of the Everglades: the Arthur R. Marshall Loxahatchee National Wildlife Refuge and the Everglades National Park. The Everglades offers a rich abundance of wildlife and plant life that is dependent on a diversity of habitat types. This ecosystem is critically endangered because of water quality, water quantity and hydroperiod problems. The water quality problem results from the excessive levels of phosphorus contained in the EAA's agricultural discharges. The water quantity and hydroperiod problems are caused by water management activities -- dikes, dams, and levees -- that were constructed in the name of human progress and urban development.

In summary, the Act's restoration plan provides a schedule for construction of Stormwater Treatment Areas (STAs), which are artificial filtration marshes, and expands requirements for on-farm Best Management Practices (BMPs). Together, STAs and BMPs are considered the best available technology for improving water quality and water quantity in the Everglades. The funding for the restoration plan will be drawn from state, agricultural and federal sources. The federal government is expected to fund the construction of one STA. The state will provide funds through a millage tax by the District, state P-2000 funds (an environmental fund), and revenue from a state toll road. The agricultural interests contribution will be collected through an agricultural privilege tax on the acres in the EAA and C-139 Basin. Attached is an outline of the key elements of the Act and a copy of the Act.

For additional information contact Glynn D. Key, Special Assistant to the Secretary (202) 208-4123.

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1. Legislative Findings and Intent (Section 1, pages 6-9)

- The Everglades ecological system is endangered as a result of adverse changes in water quality, and in the quantity, distribution, and timing of flows, and therefore must be restored and protected.
- In order to restore and protect the unique flora and fauna of the Everglades, including the Everglades National Park and the Arthur R. Marshall Loxahatchee National Wildlife Refuge, the South Florida Water Management District (District) is authorized to proceed expeditiously with the implementation of the Everglades Program (i.e., the restoration plan).
- The Everglades Program is based upon the Statement of Principles entered into in July 1993 by the Department of the Interior, the Florida Department of Environmental Protection (DEP), the District, and certain agricultural industry representatives. The Statement of Principles formed a basis to end the gridlock of five years of litigation and to begin the cleanup and renewal of the Everglades ecosystem.
- The Legislation finds that the waters flowing into the Everglades contain excessive levels of phosphorus and a reduction of these levels will benefit the ecology of the Everglades.
- It is the intent of the Legislation to preserve natural ecological values of the Everglades while also maintaining the quality of life for all residents of South Florida and to minimize the impact on South Florida jobs.
- Improved water supply and hydroperiod management are critical elements to overall revitalization of the Everglades ecosystem. It is the intent of the legislation that the Everglades Program improve water quantity reaching the Everglades, correct longstanding hydroperiod problems, increase the total quantity of water flowing through the system, provide water supply to the Everglades National Park, urban and agricultural areas, and Florida Bay.
- Stormwater Treatment Areas (STAs) and Best Management Practices (BMPs) are currently the best available technology for achieving the interim water quality goals of the Everglades Program.

A combined program of STAs and BMPs and the other requirements in the statute is a reasonable method of achieving interim total phosphorus discharge reductions.

2. Definitions (Section 2, pages 10-12)

- (a) "Best Management Practice" or "BMP" means a practice or combination of practices determined by the District, based on research, field testing, and expert review, to be the most effective and practicable on farm means of improving water quality in agricultural discharges.
- (f) "Everglades Construction Project" is the treatment system of STAs to address the water quality, water quantity and hydroperiod problems.
- (g) "Everglades Program" means projects, regulations and research designed to restore and protect the Everglades, including the Everglades Construction Project.
- (h) "Everglades Protection Area" means Water conservation Areas 1, 2A, 2B, 3A, and 3B, the Arthur R. Marshall Loxahatchee National Wildlife Refuge, and the Everglades National Park.
- (j) "Phosphorus Criterion" means a numeric interpretation of the Class III narrative standard for phosphorus.

3. Everglades Swim Plan (Section 3, page 12)

During the term of the Everglades Program, the Surface Water Improvement Management (SWIM) Act does not apply to the Everglades Protection Area and the Everglades Agricultural Area (EAA). Any part of the SWIM Act that is otherwise authorized by law remains in effect.

4. Everglades Program (Section 4, pages 14-29)

The Everglades Program consists of the following:

- (a) Everglades Construction Project;
- (b) Everglades Water Supply and Hydroperiod Improvement and Restoration;
- (c) STA 3/4 Modification;
- (d) Everglades Research and Monitoring Program;
- (e) Evaluation of Water Quality Standards;
- (f) EAA Best Management Practices; and
- (g) Monitoring and Control of Exotic Species.

- (a) Everglades Construction Project (pages 14-17) .

Introduction

The State must replace on a 2:1 acre basis the land in Brown's Farm or similar lands that are used as part of the treatment system. The Legislature mandates that the District aggressively pursue the implementation of the Everglades Construction Project in accordance with the schedule in this subsection. To fund the Everglades Construction Project the District cannot tax its water users more than 0.1 mill (which generates approximately \$21.8 million a year). In addition, the District cannot use any other funding authority to support the Everglades Construction Project unless the Legislature increases the District's authority to impose a larger mill tax or reallocates the relative contribution by the District's taxpayers and the farmers in the EAA.

Schedule

<u>Date</u>	<u>Event</u>
April 1, 1996	District completes land acquisition for STA 1-W
October 1, 1997	District completes STA 6
July 1, 1998	District completes land acquisition for STA 1-E
January 1, 1999	District completes STA 5 District completes STA 1-W
February 1, 1999	District completes STA 2
July 1, 2002	U.S. Army Corps of Engineers completes STA 1-E
October 1, 2003	District completes STA 3/4

- (b) Everglades Water Supply and Hydroperiod Improvement Restoration (pages 17-19)

1. A comprehensive program to revitalize the Everglades must include programs and projects to improve the water quantity reaching the Everglades Protection Area at optimum times and improve hydroperiod deficiencies in the Everglades ecosystem. Water supply management

must provide water supply for the Everglades National Park, the urban and agricultural areas, and the Florida Bay.

2. The District must operate the Everglades Construction Project to provide additional flows to Everglades Protection Area as needed to achieve an average annual increase of 28 percent compared to the baseline years of 1979 to 1988. Without demonstratively reducing water quality benefits, the regulatory releases will be timed to maximize water quantity benefits.
3. All reductions of flows to the Everglades Protection Area because of BMPs will be replaced. This replacement water will be governed by an administrative rule to be published no later than July 1, 1995.
6. This statute does not allocate or reserve water. All allocations and reservations will be governed by applicable law.

(c) STA 3/4 Modification (page 19-20)

It is the intent of the Legislature that the tract in the Holeyland, known as the "Toe of the Boot" be removed from STA 3/4 provided that its removal does not delay the construction of STA 3/4 and does not impede the hydrological and environmental benefits of the original design. The District is authorized to use eminent domain to acquire alternative lands if such lands are located within one mile of the northern border of STA 3/4.

(d) Everglades Research and Monitoring Program (pages 20-23)

1. By January 1996, DEP and the District must complete a review of available water quality data and initiate a research and monitoring program (a) to generate such additional needed research and (b) to evaluate the effectiveness of the BMPs and STAs. This monitoring program must monitor all discharges into the Everglades for the purpose of determining compliance with state water quality standards.
2. The research and monitoring program must evaluate the ecological and hydrological needs of the Everglades and review the classification of the canals in the EAA.
3. The research and monitoring program must include research seeking to optimize the design and operation of the STAs and to identify other treatment and management methods and regulatory programs that are superior to STAs in achieving restoration.

4. By December 2001, the research necessary to propose a phosphorus criterion must be completed.
  5. The district must submit a report on the status of the research and monitoring program to the Governor and the Legislature by no later than January 1, 1999. Prior to finalizing this report, the District must conduct at least one scientific workshop and two public hearings on the report. The construction of STA 3/4 cannot begin until 90 days after this report has been submitted to the Governor and the Legislature.
  6. Beginning January 1, 2000, DEP and the District must issue an annual report on the research and monitoring program. The report must identify water quality parameters, in addition to phosphorus, that exceed state water quality standards or are causing or contributing to adverse impacts in the Everglades Protection Area.
  7. The District must optimize the design and operation of the STAs before expanding their size. However, additional methods to achieve compliance with water quality standards can not be limited to more intensive management of the STAs.
- (e) Evaluation of Water Quality Standards (pages 23-26)
1. DEP and the District must employ all means practicable to complete by December 31, 1998, any additional research necessary (a) to set a phosphorus criterion and (b) to evaluate existing water quality standards applicable to the Everglades and the EAA canals. This research must be completed by December 31, 2001.
  2. By December 31, 2001, DEP must initiate the rulemaking to set a phosphorus criterion. The phosphorus criterion must not allow the water in the Everglades to be altered so as to cause an imbalance in the natural populations of aquatic flora or fauna. If DEP fails to adopt a phosphorus criterion by December 31, 2001, the phosphorus criterion shall be 10 parts per billion (ppb). Between December 31, 2002 and February 28, 2003, any person whose substantial interests would be affected by the phosphorus criterion rulemaking can petition for a writ of mandamus to compel DEP to adopt a phosphorus criterion if DEP has not already done so. During the pendency of the mandamus proceeding, the court may stay implementation of the 10 ppb phosphorus criterion, if the petitioner can demonstrate irreparable harm.

3. DEP must evaluate the relationships between waters discharged to, and the resulting water quality in the Everglades to establish discharge limits in discharge permits for discharges into the EAA canals and the Everglades Protection Area so as to prevent an imbalance in the natural populations of aquatic flora or fauna and to provide a net improvement in the areas already impacted. Compliance with the phosphorus criterion must be based upon a long-term geometric mean of concentration levels to be measured at sampling stations recognized from the research to be reasonably representative of receiving waters in the Everglades Protection Area, and so located so as to assure that the Everglades Protection Area is not altered so as to cause an imbalance in natural populations of aquatic flora and fauna and to assure a net improvement in the areas already impacted. For the Everglades National Park and the Arthur R. Marshall Loxahatchee National Wildlife Refuge, the method for measuring compliance with the phosphorus criterion must be in a manner consistent with Appendices A and B, respectively, of the settlement agreement dated July 26, 1991, entered in case No. 88-1886-Civ-Hoeveler, United States District Court for the Southern District of Florida, that recognizes and provides for incorporation of relevant research.
4. DEP's evaluation of other water quality standards must include DEP's antidegradation standards and EAA canal classifications.

(f) EAA Best Management Practices (pages 26-29)

1. The District must implement a water quality monitoring program to evaluate the effectiveness of the BMPs in achieving and maintaining compliance with state water quality standards.
2. The District must continue to require the BMP requirements in Rules 40E-61 and 40E-63. Prior to the expiration of existing permits, and during each 5 year term of subsequent permits, those rules may be amended to implement a comprehensive program of research, testing, and implementation of BMPs that will address water quality standards. Under this program:
  - a. EAA landowners must sponsor a BMP research program;
  - b. the District's water quality monitoring program must field test BMPs in a significant number of representative sites in the EAA.
  - c. BMPs as required for varying crops and soil types must be included in permit conditions in the 5-year permits.

d. In cooperation with EAA landowners, the District shall conduct research to identify water quality parameters that are not significantly improved either by the STAs or BMPs and to identify further strategies needed to address these parameters.

3. Permittees within the EAA and the C-139 Basin, who are in full compliance with the conditions of permits (*i.e.*, BMP requirements), have made all payments required under the Everglades Program, and are in compliance with subparagraph (a) 8, if applicable, will not be required to implement additional water quality improvement measures until December 31, 2006, with the following exceptions:
  - a. DEP and the District can exercise their authority to limit or regulate discharges that pose a significant danger to the public health and safety;
  - b. the compliance described above does not apply to new land uses and new stormwater management facilities.
4. As of December 31, 2006, all permits, including those issued prior to that date, must require water quality measures so that no permittee's discharge shall cause or contribute to any violation of water quality standards in the Everglades.
5. This provision specifies phosphorus loading restrictions for landowners within the C-139 Basin.
6. This provision provides for a water quality monitoring program in the C-139 Basin.

(g) Monitoring and Control of Exotic Species (page 29)

1. The District must produce a survey of exotic species every two years.
2. The District must establish a program to control expansion of and to remove exotic species.

5. Acquisition and Lease of State Lands (Section 5, pages 29 - 34)

6. Everglades Agricultural Privilege Tax (Section 6, pages 34-49)

This is a per acre tax that begins at \$24.89 per acre and is expected to produce a minimum of \$233 million over 20 years. This amount can go up to \$322 million if the farmers fail to meet specified phosphorus load reductions.

In 2014, this tax will be reduced to \$10.00 per acre to cover operation and maintenance costs.

7. C-139 Agricultural Privilege Tax (Section 7, pages 49-56)

This is a per acre tax that is a part of the total agricultural funds described above in Section 6 but with special tax collection language because of the location of these farms.

8. Special Assessments (Section 8, pages 56-61)

The District retains its authority to make special assessments.

9. Permits (Section 9, pages 61-70)

This section covers the permitting process by which DEP will issue permits to the District to operate the STAs. This section also sets forth the following criteria that are to be applied to determine whether a treatment method is superior to STAs and BMPs at achieving the restoration goals:

- a. levels of load reduction;
- b. levels of discharge concentration reduction;
- c. water quantity, distribution and timing;
- d. compliance with water quality standards;
- e. compatibility of treated water with the balance in natural populations of aquatic flora or fauna;
- f. cost effectiveness; and
- g. the schedule for implementation.

This is the section that the U.S. Environmental Protection Agency is most interested in (and played a large drafting role in) because this permit is the state equivalent of EPA's NPDES permit.

10. Long Term Compliance Permits (Section 10, pages 70-71)

By December 31, 2006, DEP and the District must take such action as is necessary so that water delivered to the Everglades achieves state water quality standards.

By December 31, 2003, the District must submit to DEP a plan to achieve and/or maintain compliance with the phosphorus criterion and other state water quality standards by December 31, 2006.

11. Applicability of Laws and Water Quality Standards; Authority of District and DEP (Section 11, pages 71-72)
  - a. Except as explicitly provided in this statute, nothing in this statute alters any applicable state water quality standards, laws, or District or DEP rules or restricts the authority of the District or DEP.
  - b. Mixing zones, variances and moderating provisions, or relief mechanisms for compliance with water quality standards are prohibited for discharges from the EAA, except for site specific alternative criteria may be allowed for nonphosphorus parameters. After December 31, 2006, these relief mechanisms may be allowed for non-phosphorus parameters.
  - c. Landowners or permittees who are not in compliance as provided for in paragraph (4) (f) must meet a discharge limit of 50 ppb for phosphorus until DEP sets another limit under paragraph (4) (e) (i.e., the limit for the phosphorus criterion).
12. Rights of Seminole Tribe of Florida (Section 12, page 72)
 

Nothing in this statute is intended to diminish or alter the governmental authority and powers of the Seminole Tribe of Florida or diminish or alter the Tribe's rights such as the Tribe's Water Rights Compact with the State.
13. Annual Reports (Section 13, pages 72-73)
14. Everglades Fund (Section 14, page 73)
 

The District must have a separate account for the funding for the Everglades Construction Project.
15. Definition of Everglades Agricultural Area (pages 73-76)
 

Legal description of the EAA.
16. Definition of C-139 Basin (pages 76-79)
 

Legal description of the C-139 Basin.

This part of the bill amended other Florida statutes.

Amendment of Florida Preservation 2000 Act (pages 80-81)

DEP is authorized to use P-2000 funds for land acquisition for the Everglades Construction Project.

Alligator Alley Toll Road and Florida Bay Restoration (pages 81-92)

Authorizes the use of toll road revenue to fund the Everglades construction Project and Florida Bay Restoration. In addition, this section contains a declaration of the emergency need for Florida Bay restoration, especially the need for increased water resources to reach Florida Bay to replenish marine estuary functions. The District is authorized to exercise eminent domain, upon approval of the Cabinet, to acquire the western sections of the area known as the Frog Pond for purposes of Florida Bay restoration.

## ENROLLED

CS for CS for SB 1350

Second Engrossed

1                                   A bill to be entitled  
2           An act relating to Everglades restoration;  
3           providing a short title; amending s. 373.4592,  
4           F.S.; providing legislative findings and intent  
5           with respect to restoring the Everglades;  
6           providing definitions; exempting the Everglades  
7           Protection Area and the Everglades Agricultural  
8           Area from the Everglades SWIM Plan during the  
9           term of the Everglades Program; providing that  
10          the district is not prohibited from adopting a  
11          SWIM for Florida Bay and C-111 Basin; deleting  
12          provisions requiring the adoption of an  
13          Everglades SWIM Plan directing the South  
14          Florida Water Management District to implement  
15          the Everglades Construction Project; limiting  
16          ad valorem expenditures in the Okeechobee Basin  
17          for the project; providing a preference for  
18          displaced workers; providing milestones for  
19          completion of the project; requiring the  
20          district to improve the hydroperiod of the  
21          Everglades Protection Area; reducing wasteful  
22          discharge to tide and requiring water  
23          conservation and reuse; requiring a specified  
24          increased flow to the Everglades Protection  
25          Area; requiring the district to develop a model  
26          for quantifying the amount of water to be  
27          replaced; requiring coordination with the  
28          Federal Government; removing certain tracts  
29          from STA 3/4; requiring a monitoring program to  
30          evaluate effectiveness of the stormwater  
31          treatment areas and best management practices

1 for these areas; requiring the district to  
2 submit certain reports to the Governor and  
3 Legislature; requiring the Department of  
4 Environmental Protection and the district to  
5 determine long-term water quality standards and  
6 criteria; providing for evaluation of water  
7 quality standards; providing for permittees in  
8 compliance with best-management practices  
9 permit conditions to be exempted from other  
10 water-quality improvement measures until  
11 December 31, 2006; providing exceptions;  
12 providing for water-supply and hydroperiod  
13 improvement; providing that certain landowners  
14 may not exceed a specified phosphorous loading;  
15 requiring the department and the district to  
16 implement a water-quality monitoring program;  
17 requiring the implementation of BMP's for  
18 certain areas; requiring monitoring and control  
19 of exotic species; providing for farmers  
20 adversely impacted by land acquisition to have  
21 priority in leasing state and water management  
22 district lands; providing for a specified lease  
23 renewal by the Department of Corrections;  
24 providing for an Everglades agricultural  
25 privilege tax and a C-139 agricultural  
26 privilege tax; providing for tax deferments;  
27 requiring the Department of Agriculture and  
28 Consumer Services to prepare a report;  
29 providing procedures for challenging these  
30 taxes; providing for special assessments;  
31 deleting provisions providing for the creation

1 of stormwater utilities; allowing the district  
2 to levy special assessments within stormwater  
3 management system benefit areas; allowing the  
4 district to begin construction and operation of  
5 the Everglades Construction Project prior to  
6 receiving a department permit; requiring the  
7 district to apply for a permit to construct,  
8 operate, and maintain the Everglades  
9 Construction Project; authorizing stormwater-  
10 treatment-area discharges into the Everglades  
11 Protection Area under certain conditions;  
12 allowing the district to apply for permit  
13 modifications; providing criteria for  
14 stormwater-treatment-area compliance; providing  
15 for long-term compliance permits; requiring the  
16 district to submit to the department certain  
17 permit modifications; specifying what the  
18 permit application must include; providing that  
19 certain water-quality standards are not  
20 altered; providing that certain relief  
21 mechanisms may not be granted for certain  
22 discharges except under certain circumstances;  
23 providing that certain landowners or permittees  
24 must meet a specified phosphorous-discharge  
25 limit; preserving the rights of the Seminole  
26 Tribe of Florida under the Water Rights  
27 Compact; directing the district to establish an  
28 Everglades Fund; providing uses for the fund;  
29 amending s. 298.22, F.S.; authorizing the  
30 condemnation or acquisition of land to  
31 implement s. 373.4592, F.S.; continuing the

1 collection of tolls on Alligator Alley;  
2 providing uses for tolls; authorizing the South  
3 Florida Water Management District to issue  
4 revenue bonds or notes using toll revenues as  
5 security; providing uses for the proceeds from  
6 said lands or notes; amending s. 338.165, F.S.;  
7 authorizing the Department of Transportation to  
8 request the issuance of bonds secured by toll  
9 revenues collected on Alligator Alley to fund  
10 specified transportation projects; creating s.  
11 373.4593, F.S.; providing legislative intent  
12 regarding the restoration of the Florida Bay;  
13 directing the district to implement an  
14 emergency interim plan; providing elements of  
15 said plan; authorizing the South Florida Water  
16 Management District to acquire specified lands  
17 by eminent domain; directing the district to  
18 take certain actions to promote the restoration  
19 of the Florida Bay; waiving certain permit  
20 requirements; authorizing the acquisition of  
21 certain lands needed to restore the historical  
22 hydrology of Florida Bay using funds from the  
23 Conservation and Recreation Lands Trust Fund;  
24 allocating not more than \$25 million in said  
25 funds to be used by the South Florida Water  
26 Management District for said purpose; repealing  
27 s. 1 of ch. 91-80, Laws of Florida, which  
28 prescribes a short title for ch. 91-80, Laws of  
29 Florida; providing an appropriation; continuing  
30 the collection of tolls on Alligator Alley;  
31 providing uses for tolls; authorizing the South

1 Florida Water Management District to issue  
 2 revenue bonds or notes using toll revenues as  
 3 security; providing uses for the proceeds from  
 4 said lands or notes; amending s. 330.165, F.S.;  
 5 authorizing the Department of Transportation to  
 6 request the issuance of bonds secured by toll  
 7 revenues collected on Alligator Alley to fund  
 8 specified transportation projects; creating s.  
 9 373.4593, F.S.; providing legislative intent  
 10 regarding the restoration of the Florida Bay;  
 11 directing the district to implement an  
 12 emergency interim plan; providing elements of  
 13 said plan; authorizing the South Florida Water  
 14 Management District to acquire specified lands  
 15 by eminent domain upon approval of the Trustees  
 16 of the Internal Improvement Trust Fund;  
 17 directing the district to take certain actions  
 18 to promote the restoration of the Florida Bay;  
 19 waiving certain permit requirements;  
 20 authorizing the acquisition of certain lands  
 21 needed to restore the historical hydrology of  
 22 Florida Bay using funds from the Conservation  
 23 and Recreation Lands Trust Fund; allocating not  
 24 more than \$25 million in said funds to be used  
 25 by the South Florida Water Management District  
 26 for said purpose; providing an effective date.

27  
 28 WHEREAS, the Marjory Stoneman Douglas Everglades  
 29 Protection Act was enacted in 1991 to help resolve long-  
 30 standing litigation relating to efforts to restore the  
 31 Everglades, and

1           WHEREAS, the various interests involved in developing  
2 detailed implementing projects for restoring the Everglades as  
3 required by the court-sanctioned settlement agreement have  
4 been unable to reach final agreement even with professional  
5 negotiation assistance, and the parties have declared an  
6 impasse in their negotiating activities, NOW, THEREFORE,

7  
8 Be It Enacted by the Legislature of the State of Florida:

9  
10           Section 1. Section 373.4592, Florida Statutes, shall  
11 be known as the "Everglades Forever Act."

12           Section 2. Section 373.4592, Florida Statutes, is  
13 amended to read:

14           373.4592 Everglades improvement and management.--

15           (1) FINDINGS AND INTENT.--

16           (a) The Legislature finds that the Everglades  
17 ecological system not only contributes to South Florida's  
18 water supply, flood control, and recreation, but serves as the  
19 habitat for diverse species of wildlife and plant life. The  
20 system is unique in the world and one of Florida's great  
21 treasures. The Everglades ecological system is endangered as  
22 a result of adverse changes in water quality, and in the  
23 quantity, distribution, and timing of flows, and, therefore,  
24 must be restored and protected.

25           (b) The Legislature finds that, although the district  
26 and the department have developed plans and programs for the  
27 improvement and management of the surface waters tributary to  
28 the Everglades Protection Area, implementation of those plans  
29 and programs has not been as timely as is necessary to restore  
30 and protect unique flora and fauna of the Everglades,  
31 including the Everglades National Park and the Arthur R.

1 Marshall Loxahatchee National Wildlife Refuge. Therefore, the  
 2 Legislature determines that an appropriate method to proceed  
 3 with Everglades restoration and protection is to authorize the  
 4 district to proceed expeditiously with implementation of the  
 5 Everglades Program.

6 (c) The Legislature finds that, in the last decade,  
 7 people have come to realize the tremendous cost the alteration  
 8 of natural systems has exacted on the region. The Statement  
 9 of Principles of July 1993 among the Federal Government, the  
 10 South Florida Water Management District, the Department of  
 11 Environmental Protection, and certain agricultural industry  
 12 representatives formed a basis to bring to a close 5 years of  
 13 costly litigation. That agreement should be used to begin the  
 14 cleanup and renewal of the Everglades ecosystem.

15 (d) It is the intent of the Legislature to promote  
 16 Everglades restoration and protection through certain  
 17 legislative findings and determinations. The Legislature  
 18 finds that waters flowing into the Everglades Protection Area  
 19 contain excessive levels of phosphorus. A reduction in levels  
 20 of phosphorus will benefit the ecology of the Everglades  
 21 Protection Area.

22 (e) It is the intent of the Legislature to pursue  
 23 comprehensive and innovative solutions to issues of water  
 24 quality, water quantity, hydroperiod, and invasion of exotic  
 25 species which face the Everglades ecosystem. The Legislature  
 26 recognizes that the Everglades ecosystem must be restored both  
 27 in terms of water quality and water quantity and must be  
 28 preserved and protected in a manner that is long term and  
 29 comprehensive. The Legislature further recognizes that the  
 30 EAA and adjacent areas provide a base for an agricultural  
 31 industry, which in turn provides important products, jobs, and

1 income regionally and nationally. It is the intent of the  
 2 Legislature to preserve natural values in the Everglades while  
 3 also maintaining the quality of life for all residents of  
 4 South Florida, including those in agriculture, and to minimize  
 5 the impact on South Florida jobs, including agricultural,  
 6 tourism, and natural resource-related jobs, all of which  
 7 contribute to a robust regional economy.

8 (f) The Legislature finds that improved water supply  
 9 and hydroperiod management are crucial elements to overall  
 10 revitalization of the Everglades ecosystem, including Florida  
 11 Bay. It is the intent of the Legislature to expedite plans  
 12 and programs for improving water quantity reaching the  
 13 Everglades, correcting long-standing hydroperiod problems,  
 14 increasing the total quantity of water flowing through the  
 15 system, providing water supply for the Everglades National  
 16 Park, urban and agricultural areas, and Florida Bay, and  
 17 replacing water previously available from the coastal ridge in  
 18 areas of southern Dade County. Whenever possible, wasteful  
 19 discharges of fresh water to tide shall be reduced, and the  
 20 water shall be stored for delivery at more optimum times.  
 21 Additionally, reuse and conservation measures shall be  
 22 implemented consistent with law. The Legislature further  
 23 recognizes that additional water storage may be an appropriate  
 24 use of Lake Okeechobee.

25 (g) The Legislature finds that the Statement of  
 26 Principles of July 1993, the Everglades Construction Project,  
 27 and the regulatory requirements of this section provide a  
 28 sound basis for the state's long-term cleanup and restoration  
 29 objectives for the Everglades. It is the intent of the  
 30 Legislature to provide a sufficient period of time for  
 31 construction, testing, and research, so that the benefits of

1 the Everglades Construction Project will be determined and  
 2 maximized prior to requiring additional measures. The  
 3 Legislature finds that STAs and BMPs are currently the best  
 4 available technology for achieving the interim water quality  
 5 goals of the Everglades Program. A combined program of  
 6 agricultural BMPs, STAs, and requirements of this section is a  
 7 reasonable method of achieving interim total phosphorus  
 8 discharge reductions. The Everglades Program is an  
 9 appropriate foundation on which to build a long-term program  
 10 to ultimately achieve restoration and protection of the  
 11 Everglades Protection Area.

12 (h) The Everglades Construction Project represents by  
 13 far the largest environmental cleanup and restoration program  
 14 of this type ever undertaken, and the returns from substantial  
 15 public and private investment must be maximized so that  
 16 available resources are managed responsibly. To that end, the  
 17 Legislature directs that the Everglades Construction Project  
 18 and regulatory requirements associated with the Statement of  
 19 Principles of July 1993 be pursued expeditiously, but with  
 20 flexibility, so that superior technology may be utilized when  
 21 available. Consistent with the implementation of the  
 22 Everglades Construction Project, landowners shall be provided  
 23 the maximum opportunity to provide treatment on their land.

24 ~~(b)--The-Legislature-further-recognizes-the-efforts-of~~  
 25 ~~the-South-Florida-Water-Management-District-to-implement-a~~  
 26 ~~comprehensive-plan-pursuant-to-the-Surface-Water-Improvement~~  
 27 ~~and-Management-Act-which-will-provide-strategies,-programs,~~  
 28 ~~and-projects-for-the-restoration-and-protection-of-water~~  
 29 ~~quality-in-the-Everglades.--The-legislature-does-not-intend-by~~  
 30 ~~this-section-to-limit-the-authority-of-the-district-in-the~~  
 31 ~~implementation-of-such-plan.~~

1           ~~(c) -- it is the intent of the legislature to facilitate~~  
 2     ~~the surface water improvement and management process; to~~  
 3     ~~assist the district and the Department of Environmental~~  
 4     ~~Regulation in the performance of their duties and~~  
 5     ~~responsibilities, and to provide funding mechanisms which will~~  
 6     ~~contribute to the implementation of the strategies~~  
 7     ~~incorporated in the Everglades Surface Water Improvement and~~  
 8     ~~Management Plan or contribute to projects or facilities~~  
 9     ~~determined necessary to meet water quality requirements~~  
 10    ~~established by rulemaking or permit proceedings;~~

11           (2) DEFINITIONS.--As used in this section:

12           (a) "Best management practice" or "BMP" means a  
 13     practice or combination of practices determined by the  
 14     district, in cooperation with the department, based on  
 15     research, field-testing, and expert review, to be the most  
 16     effective and practicable, including economic and  
 17     technological considerations, on-farm means of improving water  
 18     quality in agricultural discharges to a level that balances  
 19     water quality improvements and agricultural productivity.

20           (b) "C-139 Basin" or "Basin" means those lands  
 21     described in subsection (16)

22           (c) "Department" means the Florida Department of  
 23     Environmental Protection.

24           (d)~~(e)~~ "District" means the South Florida Water  
 25     Management District.

26           (e)~~(f)~~ "Everglades Agricultural Area" or "EAA" means  
 27     the Everglades Agricultural Area, which are those lands  
 28     described in subsection (15). ~~shall have the meaning set forth~~  
 29     ~~in the Everglades Surface Water Improvement and Management~~  
 30     ~~Plan or interim permit issued pursuant to subsection (6).~~

31

1           (f) "Everglades Construction Project" means the  
 2 project described in the February 15, 1994, conceptual design  
 3 document together with construction and operation schedules on  
 4 file with the South Florida Water Management District, except  
 5 as modified by this section.

6           (g) "Everglades Program" means the program of  
 7 projects, regulations, and research provided by this section,  
 8 including the Everglades Construction Project.

9           (h)(c) "Everglades Protection Area" means Water  
 10 Conservation Areas 1, 2A, 2B, 3A, and 3B, the Arthur R.  
 11 Marshall Loxahatchee National Wildlife Refuge, and the  
 12 Everglades National Park.

13           (i)(d) "Master permit" means a single permit issued to  
 14 a legally responsible entity defined by rule, authorizing the  
 15 construction, alteration, maintenance, or operation of  
 16 multiple stormwater management systems that which may be owned  
 17 or operated by different persons and which provides an  
 18 opportunity to achieve collective compliance with applicable  
 19 department and district rules and the provisions of this  
 20 section.

21           (j) "Phosphorus criterion" means a numeric  
 22 interpretation for phosphorus of the Class III narrative  
 23 nutrient criterion.

24           ~~(k)--"Plan" shall, except as otherwise indicated, refer~~  
 25 ~~to the Everglades Surface Water Improvement and Management~~  
 26 ~~Plan adopted by the South Florida Water Management District,~~  
 27 ~~as amended from time to time.~~

28           (k)(f) "Stormwater management program" shall have the  
 29 meaning set forth in s. 403.031(15).

30           (l) "Stormwater treatment areas" or "STAs" means those  
 31 treatment areas described and depicted in the district's

1 conceptual design document of February 15, 1994, and any  
 2 modifications as provided in this section.

3 ~~(g)--"Stormwater-utility"-shall-have-the-meaning-set~~  
 4 ~~forth-in-sr-403.03+(+7)+~~

5 (3) EVERGLADES ADOPTION-OF SWIM PLAN.--The Legislature  
 6 finds that the Everglades Program required by this section  
 7 establishes more extensive and comprehensive requirements for  
 8 surface water improvement and management within the Everglades  
 9 than the SWIM plan requirements provided in ss. 373.451-  
 10 373.456. In order to avoid duplicative requirements, and in  
 11 order to conserve the resources available to the district, the  
 12 SWIM plan requirements of those sections shall not apply to  
 13 the Everglades Protection Area and the EAA during the term of  
 14 the Everglades Program, and the district will neither propose,  
 15 nor take final agency action on, any Everglades SWIM plan for  
 16 those areas until the Everglades Program is fully implemented;  
 17 however, funds under s. 259.101(3)(b) may be used for  
 18 acquisition of lands necessary to implement the Everglades  
 19 Construction Project, to the extent these funds are identified  
 20 in the Statement of Principles of July 1993. The district's  
 21 actions in implementing the Everglades Construction Project  
 22 relating to the responsibilities of the EAA and C-139 Basin  
 23 for funding and water quality compliance in the EAA and the  
 24 Everglades Protection Area shall be governed by this section.  
 25 Other strategies or activities in the March 1992 SWIM plan may  
 26 be implemented if otherwise authorized by law.

27 ~~(e)--The-district-shall-adopt-the-Everglades-Surface~~  
 28 ~~Water-Improvement-and-Management-Plan-pursuant-to-the~~  
 29 ~~provisions-of-sr-373.451-373.456.--In-addition-to-the~~  
 30 ~~criteria-contained-in-sr-373.453,-the-plan-shall-include:~~

31

~~1 1r--Strategies-for-developing-programs-and-projects~~  
~~2 designed-to-bring-facilities-into-compliance-with-applicable~~  
~~3 water-quality-standards-and-restore-the-Everglades~~  
~~4 hydroperiod,including-the-identification-and-acquisition-of~~  
~~5 lands-for-the-purpose-of-water-treatment-or-implementation-of~~  
~~6 stormwater-management-systems;the-development-of-funding~~  
~~7 mechanisms;and-the-development-of-a-permitting-system-for~~  
~~8 discharges-into-waters-managed-by-the-district;~~  
~~9 2r--Specific-goals-for-stormwater-management-systems~~  
~~10 funded-pursuant-to-subsection-(5)-and-a-periodic-evaluation~~  
~~11 process-to-determine-whether-such-goals-are-being-achieved;~~  
~~12 3r--Strategies-for-establishing-monitoring-protocols-to~~  
~~13 ensure-the-accuracy-of-data;~~  
~~14 4r--Strategies-for-establishing-research-programs-to~~  
~~15 measure-program-and-project-effectiveness;~~  
~~16 (b)--The-plan-shall-not-be-reviewable-as-a-rule-under~~  
~~17 s.120.54-or-s.120.56.--However,the-final-agency-action-of~~  
~~18 the-governing-board-of-the-district-under-s.373.456(4)-or~~  
~~19 (5)(b)-shall-constitute-an-order-of-the-district-subject-to~~  
~~20 review-as-provided-in-s.373.456(5)(b);--The-order-shall-also~~  
~~21 be-subject-to-the-provisions-of-s.120.57.--If-a-provision-of~~  
~~22 the-plan-is-to-be-implemented-through-permits-for-which-there~~  
~~23 is-no-existing-rule-requirement,the-district-shall-engage-in~~  
~~24 rulemaking-procedures-pursuant-to-chapter-120-for-the-adoption~~  
~~25 of-the-requirement.--To-the-extent-feasible,any-review~~  
~~26 proceeding-under-chapter-373-or-any-administrative-proceeding~~  
~~27 under-s.120.57,with-respect-to-a-challenge-to-the-plan,~~  
~~28 shall-be-expedited-and-shall-be-consolidated-with-any-pending~~  
~~29 review-proceedings-relating-to-an-interim-permit-issued~~  
~~30 pursuant-to-subsection-(6);~~  
~~31~~

1 ~~{e}--This section shall not be construed to prohibit~~  
 2 ~~the district prior to approval of the plan from pursuing~~  
 3 ~~interim permits pursuant to subsection (6) or from engaging in~~  
 4 ~~restoration or protection measures, including the acquisition,~~  
 5 ~~construction, or operation of the Everglades Nutrient Removal~~  
 6 ~~Project or the project referred to as Water Management Area 3,~~  
 7 ~~as identified in the September 20, 1990, draft of the~~  
 8 ~~Everglades Surface Water Improvement and Management Plan.--The~~  
 9 ~~department may release funds under s.s. 373.451-373.456 for~~  
 10 ~~such projects.~~

11 (4) EVERGLADES PROGRAM.--

12 (a) Everglades Construction Project.--The district  
 13 shall implement the Everglades Construction Project. By the  
 14 time of completion of the project, the state, district, or  
 15 other governmental authority shall purchase the inholdings in  
 16 the Rotenberger and such other lands necessary to achieve a  
 17 2:1 mitigation ratio for the use of Brown's Farm and other  
 18 similar lands, including those needed for the STA 1 Inflow and  
 19 Distribution Works. The inclusion of public lands as part of  
 20 the project is for the purpose of treating waters not coming  
 21 from the EAA for hydroperiod restoration. It is the intent of  
 22 the Legislature that the district aggressively pursue the  
 23 implementation of the Everglades Construction Project in  
 24 accordance with the schedule in this subsection. The  
 25 Legislature recognizes that adherence to the schedule is  
 26 dependent upon factors beyond the control of the district,  
 27 including the timely receipt of funds from all contributors.  
 28 The district shall take all reasonable measures to complete  
 29 timely performance of the schedule in this section in order to  
 30 finish the Everglades Construction Project. The district  
 31 shall not delay implementation of the project beyond the time

1 delay caused by those circumstances and conditions that  
 2 prevent timely performance. The district shall not levy ad  
 3 valorem taxes in excess of 0.1 mill within the Okeechobee  
 4 Basin for the purposes of the design, construction and  
 5 acquisition of the Everglades Construction Project. The ad  
 6 valorem tax proceeds not exceeding 0.1 mill levied within the  
 7 Okeechobee Basin for such purposes shall be the sole direct  
 8 district contribution from district ad valorem taxes  
 9 appropriated or expended for the design, construction and  
 10 acquisition of the Everglades Construction Project unless the  
 11 Legislature by specific amendment to this section increases  
 12 the 0.1 mill ad valorem tax contribution, increases the  
 13 agricultural privilege taxes, or otherwise reallocates the  
 14 relative contribution by ad valorem taxpayers and taxpayers  
 15 paying the agricultural privilege taxes toward the funding of  
 16 the design, construction and acquisition of the Everglades  
 17 Construction Project. Notwithstanding the provisions of s.  
 18 200.069 to the contrary, any millage levied under the 0.1 mill  
 19 limitation in this paragraph shall be included as a separate  
 20 entry on the Notice of Proposed Property Taxes pursuant to s.  
 21 200.069. Once the STAs are completed, the district shall  
 22 allow these areas to be used by the public for recreational  
 23 purposes in the manner set forth in s. 373.59(10), considering  
 24 the suitability of these lands for such uses. These lands  
 25 shall be made available for recreational use unless the  
 26 district governing board can demonstrate that such uses are  
 27 incompatible with the restoration goals of the Everglades  
 28 Construction Project or the water quality and hydrological  
 29 purposes of the STAs or would otherwise adversely impact the  
 30 implementation of the project. The district shall give  
 31 preferential consideration to the hiring of agricultural

1 workers displaced as a result of the Everglades Construction  
 2 Project, consistent with their qualifications and abilities,  
 3 for the construction and operation of these STAs. The  
 4 following milestones apply to the completion of the Everglades  
 5 Construction Project as depicted in the February 15, 1994,  
 6 conceptual design document:

7       1. The district must complete the final design of the  
 8 STA 1 East and West and pursue STA 1 East project components  
 9 as part of a cost-shared program with the Federal Government.  
 10 The district must be the local sponsor of the federal project  
 11 that will include STA 1 East, and STA 1 West if so authorized  
 12 by federal law. Land acquisition shall be completed for STA 1  
 13 West by April 1, 1996, and for STA 1 East by July 1, 1998;

14       2. Construction of STA 1 East is to be completed under  
 15 the direction of the United States Army Corps of Engineers in  
 16 conjunction with the currently authorized C-51 flood control  
 17 project by July 1, 2002;

18       3. The district must complete construction of STA 1  
 19 West and STA 1 Inflow and Distribution Works under the  
 20 direction of the United States Army Corps of Engineers, if the  
 21 direction is authorized under federal law, in conjunction with  
 22 the currently authorized C-51 flood control project, by  
 23 January 1, 1999;

24       4. The district must complete construction of STA 2 by  
 25 February 1, 1999;

26       5. The district must complete construction of STA 3/4  
 27 by October 1, 2003;

28       6. The district must complete construction of STA 5 by  
 29 January 1, 1999; and

30       7. The district must complete construction of STA 6 by  
 31 October 1, 1997.

1       8. East Beach Water Control District, South Shore  
 2 Drainage District, South Florida Conservancy District, East  
 3 Shore Water Control District, and the lessee of agricultural  
 4 lease number 3420 shall complete any system modifications  
 5 described in the Everglades Construction Project to the extent  
 6 that funds are available from the Everglades Fund. These  
 7 entities shall divert the discharges described within the  
 8 Everglades Construction Project within 60 days of completion  
 9 of construction of the appropriate STA. Such required  
 10 modifications shall be deemed to be a part of each district's  
 11 plan of reclamation pursuant to chapter 298.

12       (b) Everglades water supply and hydroperiod  
 13 improvement and restoration.--

14       1. A comprehensive program to revitalize the  
 15 Everglades shall include programs and projects to improve the  
 16 water quantity reaching the Everglades Protection Area at  
 17 optimum times and improve hydroperiod deficiencies in the  
 18 Everglades ecosystem. To the greatest extent possible,  
 19 wasteful discharges of fresh water to tide shall be reduced,  
 20 and water conservation practices and reuse measures shall be  
 21 implemented by water users, consistent with law. Water supply  
 22 management must include improvement of water quantity reaching  
 23 the Everglades, correction of long-standing hydroperiod  
 24 problems, and an increase in the total quantity of water  
 25 flowing through the system. Water supply management must  
 26 provide water supply for the Everglades National Park, the  
 27 urban and agricultural areas, and the Florida Bay and must  
 28 replace water previously available from the coastal ridge  
 29 areas of southern Dade County. The Everglades Construction  
 30 Project redirects some water currently lost to tide. It is an  
 31 important first step in completing hydroperiod improvement.

1           2. The district shall operate the Everglades  
 2 Construction Project as specified in the February 15, 1994,  
 3 conceptual design document, to provide additional inflows to  
 4 the Everglades Protection Area. The increased flow from the  
 5 project shall be directed to the Everglades Protection Area as  
 6 needed to achieve an average annual increase of 28 percent  
 7 compared to the baseline years of 1979 to 1988. Consistent  
 8 with the design of the Everglades Construction Project and  
 9 without demonstratively reducing water quality benefits, the  
 10 regulatory releases will be timed and distributed to the  
 11 Everglades Protection Area to maximize environmental benefits.

12           3. The district shall operate the Everglades  
 13 Construction Project in accordance with the February 15, 1994,  
 14 conceptual design document to maximize the water quantity  
 15 benefits and improve the hydroperiod of the Everglades  
 16 Protection Area. All reductions of flow to the Everglades  
 17 Protection Area from BMP implementation will be replaced. The  
 18 district shall develop a model to be used for quantifying the  
 19 amount of water to be replaced. The district shall publish in  
 20 the Florida Administrative Weekly a notice of rule development  
 21 on the model no later than July 1, 1994, and a notice of  
 22 rulemaking no later than July 1, 1995. The timing and  
 23 distribution of this replaced water will be directed to the  
 24 Everglades Protection Area to maximize the natural balance of  
 25 the Everglades Protection Area.

26           4. The Legislature recognizes the complexity of the  
 27 Everglades watershed, as well as legal mandates under Florida  
 28 and federal law. As local sponsor of the Central and Southern  
 29 Florida Flood Control Project, the district must coordinate  
 30 its water supply and hydroperiod programs with the Federal  
 31 Government. Federal planning, research, operating guidelines,

1 and restrictions for the Central and Southern Florida Flood  
 2 Control Project now under review by federal agencies will  
 3 provide important components of the district's Everglades  
 4 Program. The department and district shall use their best  
 5 efforts to seek the amendment of the authorized purposes of  
 6 the project to include water quality protection, hydroperiod  
 7 restoration, and environmental enhancement as authorized  
 8 purposes of the Central and Southern Florida Flood Control  
 9 Project, in addition to the existing purposes of water supply,  
 10 flood protection, and allied purposes. Further, the  
 11 department and the district shall use their best efforts to  
 12 request that the Federal Government include in the evaluation  
 13 of the regulation schedule for Lake Okeechobee a review of the  
 14 regulatory releases, so as to facilitate releases of water  
 15 into the Everglades Protection Area which further improve  
 16 hydroperiod restoration.

17 5. The district, through cooperation with the federal  
 18 and state agencies, shall develop other programs and methods  
 19 to increase the water flow and improve the hydroperiod of the  
 20 Everglades Protection Area.

21 6. Nothing in this section is intended to provide an  
 22 allocation or reservation of water or to modify the provisions  
 23 of part II of chapter 373. All decisions regarding  
 24 allocations and reservations of water shall be governed by  
 25 applicable law.

26 7. The district shall proceed to expeditiously  
 27 implement the minimum flows and levels for the Everglades  
 28 Protection Area as required by s. 373.042 and shall  
 29 expeditiously complete the Lower East Coast Water Supply Plan.

30 (c) STA 3/4 modification.--The Everglades Program will  
 31 contribute to the restoration of the Rotenberger and Holey

1 Land tracts. The Everglades Construction Project provides a  
 2 first step toward restoration by improving hydroperiod with  
 3 treated water for the Rotenberger tract and by providing a  
 4 source of treated water for the Holey Land. It is further the  
 5 intent of the Legislature that the easternmost tract of the  
 6 Holey Land, known as the "Toe of the Boot," be removed from  
 7 STA 3/4 under the circumstances set forth in this paragraph.  
 8 The district shall proceed to modify the Everglades  
 9 Construction Project, provided that the redesign achieves at  
 10 least as many environmental and hydrological benefits as are  
 11 included in the original design, including treatment of waters  
 12 from sources other than the EAA, and does not delay  
 13 construction of STA 3/4. The district is authorized to use  
 14 eminent domain to acquire alternative lands, only if such  
 15 lands are located within 1 mile of the northern border of STA  
 16 3/4.

17 (d) Everglades research and monitoring program.--

18 1. By January 1996, the department and the district  
 19 shall review and evaluate available water quality data for the  
 20 Everglades Protection Area and tributary waters and identify  
 21 any additional information necessary to adequately describe  
 22 water quality in the Everglades Protection Area and tributary  
 23 waters. By such date, the department and the district shall  
 24 also initiate a research and monitoring program to generate  
 25 such additional information identified and to evaluate the  
 26 effectiveness of the BMPs and STAs, as they are implemented,  
 27 in improving water quality and maintaining designated and  
 28 existing beneficial uses of the Everglades Protection Area and  
 29 tributary waters. As part of the program, the district shall  
 30 monitor all discharges into the Everglades Protection Area for  
 31

1 purposes of determining compliance with state water quality  
 2 standards.

3 2. The research and monitoring program shall evaluate  
 4 the ecological and hydrological needs of the Everglades  
 5 Protection Area, including the minimum flows and levels.  
 6 Consistent with such needs, the program shall also evaluate  
 7 water quality standards for the Everglades Protection Area and  
 8 for the canals of the EAA, so that these canals can be  
 9 classified in the manner set forth in paragraph (e) and  
 10 protected as an integral part of the water management system  
 11 which includes the STAs of the Everglades Construction Project  
 12 and allows landowners in the EAA to achieve applicable water  
 13 quality standards compliance by BMPs and STA treatment to the  
 14 extent this treatment is available and effective.

15 3. The research and monitoring program shall include  
 16 research seeking to optimize the design and operation of the  
 17 STAs, including research to reduce outflow concentrations, and  
 18 to identify other treatment and management methods and  
 19 regulatory programs that are superior to STAs in achieving the  
 20 intent and purposes of this section.

21 4. The research and monitoring program shall be  
 22 conducted to allow completion by December 2001 of any research  
 23 necessary to allow the department to propose a phosphorus  
 24 criterion in the Everglades Protection Area, and to evaluate  
 25 existing state water quality standards applicable to the  
 26 Everglades Protection Area and existing state water quality  
 27 standards and classifications applicable to the EAA canals.  
 28 In developing the phosphorus criterion, the department shall  
 29 also consider the minimum flows and levels for the Everglades  
 30 Protection Area and the district's water supply plans for the  
 31 Lower East Coast.

1           5. The district, in cooperation with the department,  
2 shall prepare a peer-reviewed interim report regarding the  
3 research and monitoring program, which shall be submitted no  
4 later than January 1, 1999, to the Governor, the President of  
5 the Senate, and the Speaker of the House of Representatives  
6 for their review. The interim report shall summarize all data  
7 and findings available as of July 1, 1998, on the  
8 effectiveness of STAs and BMPs in improving water quality.  
9 The interim report shall also include a summary of the then-  
10 available data and findings related to the following: the  
11 Lower East Coast Water Supply Plan of the district, the United  
12 States Environmental Protection Agency Everglades Mercury  
13 Study, the United States Army Corps of Engineers South Florida  
14 Ecosystem Restoration Study, the results of research and  
15 monitoring of water quality and quantity in the Everglades  
16 region, the degree of phosphorus discharge reductions achieved  
17 by BMPs and agricultural operations in the region, the current  
18 information on the ecological and hydrological needs of the  
19 Everglades, and the costs and benefits of phosphorus reduction  
20 alternatives. Prior to finalizing the interim report, the  
21 district shall conduct at least one scientific workshop and  
22 two public hearings on its proposed interim report. One  
23 public hearing must be held in Palm Beach County and the other  
24 must be held in either Dade or Broward County. The interim  
25 report shall be used by the department and the district in  
26 making any decisions regarding the implementation of the  
27 Everglades Construction Project subsequent to the completion  
28 of the interim report. The construction of STAs 3/4 shall not  
29 be commenced until 90 days after the interim report has been  
30 submitted to the Governor and the Legislature.  
31

1       6. Beginning January 1, 2000, the district and the  
 2 department shall annually issue a peer-reviewed report  
 3 regarding the research and monitoring program that summarizes  
 4 all data and findings. The department shall provide copies of  
 5 the report to the Governor, the President of the Senate, and  
 6 the Speaker of the House of Representatives. The report shall  
 7 identify water quality parameters, in addition to phosphorus,  
 8 which exceed state water quality standards or are causing or  
 9 contributing to adverse impacts in the Everglades Protection  
 10 Area.

11       7. The district shall continue research seeking to  
 12 optimize the design and operation of STAs and to identify  
 13 other treatment and management methods that are superior to  
 14 STAs in achieving optimum water quality and water quantity for  
 15 the benefit of the Everglades. The district shall optimize  
 16 the design and operation of the STAs described in the  
 17 Everglades Construction Project prior to expanding their size.  
 18 Additional methods to achieve compliance with water quality  
 19 standards shall not be limited to more intensive management of  
 20 the STAs.

21       (e) Evaluation of water quality standards.--

22       1. The department and the district shall employ all  
 23 means practicable to complete by December 31, 1998, any  
 24 additional research necessary to:

25       a. Numerically interpret for phosphorus the Class III  
 26 narrative nutrient criterion necessary to meet water quality  
 27 standards in the Everglades Protection Area; and

28       b. Evaluate existing water quality standards  
 29 applicable to the Everglades Protection Area and EAA canals.  
 30  
 31

1 This research shall be completed no later than December 31,  
 2 2001.

3 2. By December 31, 2001, the department shall file a  
 4 notice of rulemaking in the Florida Administrative Weekly to  
 5 establish a phosphorus criterion in the Everglades Protection  
 6 Area. In no case shall such phosphorus criterion allow waters  
 7 in the Everglades Protection Area to be altered so as to cause  
 8 an imbalance in the natural populations of aquatic flora or  
 9 fauna. The phosphorus criterion shall be 10 parts per billion  
 10 (ppb) in the Everglades Protection Area in the event the  
 11 department does not adopt by rule such criterion by December  
 12 31, 2003. However, in the event the department fails to adopt  
 13 a phosphorus criterion on or before December 31, 2002, any  
 14 person whose substantial interests would be affected by the  
 15 rulemaking shall have the right, on or before February 28,  
 16 2003, to petition for a writ of mandamus to compel the  
 17 department to adopt by rule such criterion. Venue for the  
 18 mandamus action must be Leon County. The court may stay  
 19 implementation of the 10 parts per billion (ppb) criterion  
 20 during the pendency of the mandamus proceeding upon a  
 21 demonstration by the petitioner of irreparable harm in the  
 22 absence of such relief. The department's phosphorus  
 23 criterion, whenever adopted, shall supersede the 10 parts per  
 24 billion (ppb) criterion otherwise established by this section,  
 25 but shall not be lower than the natural conditions of the  
 26 Everglades Protection Area and shall take into account spatial  
 27 and temporal variability.

28 3. The department shall use the best available  
 29 information to define relationships between waters discharged  
 30 to, and the resulting water quality in, the Everglades  
 31 Protection Area. The department or the district shall use

1 these relationships to establish discharge limits in permits  
 2 for discharges into the EAA canals and the Everglades  
 3 Protection Area necessary to prevent an imbalance in the  
 4 natural populations of aquatic flora or fauna in the  
 5 Everglades Protection Area, and to provide a net improvement  
 6 in the areas already impacted. Compliance with the phosphorus  
 7 criterion shall be based upon a long-term geometric mean of  
 8 concentration levels to be measured at sampling stations  
 9 recognized from the research to be reasonably representative  
 10 of receiving waters in the Everglades Protection Area, and so  
 11 located so as to assure that the Everglades Protection Area is  
 12 not altered so as to cause an imbalance in natural populations  
 13 of aquatic flora and fauna and to assure a net improvement in  
 14 the areas already impacted. For the Everglades National Park  
 15 and the Arthur R. Marshall Loxahatchee National Wildlife  
 16 Refuge, the method for measuring compliance with the  
 17 phosphorus criterion shall be in a manner consistent with  
 18 Appendices A and B, respectively, of the settlement agreement  
 19 dated July 26, 1991, entered in case No. 88-1886-Civ-Hoeweler,  
 20 United States District Court for the Southern District of  
 21 Florida, that recognizes and provides for incorporation of  
 22 relevant research.

23 4. The department's evaluation of any other water  
 24 quality standards must include the department's  
 25 antidegradation standards and EAA canal classifications. In  
 26 recognition of the special nature of the conveyance canals of  
 27 the EAA, as a component of the classification process, the  
 28 department is directed to formally recognize by rulemaking  
 29 existing actual beneficial uses of the conveyance canals in  
 30 the EAA. This shall include recognition of the Class III  
 31 designated uses of recreation, propagation and maintenance of

1 a healthy, well-balanced population of fish and wildlife, the  
 2 integrated water management purposes for which the Central and  
 3 Southern Florida Flood Control Project was constructed, flood  
 4 control, conveyance of water to and from Lake Okeechobee for  
 5 urban and agricultural water supply, Everglades hydroperiod  
 6 restoration, conveyance of water to the STAs, and navigation.

7 (f) EAA best management practices.--

8 1. The district, in cooperation with the department,  
 9 shall develop and implement a water quality monitoring program  
 10 to evaluate the effectiveness of the BMPs in achieving and  
 11 maintaining compliance with state water quality standards and  
 12 restoring and maintaining designated and existing beneficial  
 13 uses. The program shall include an analysis of the  
 14 effectiveness of the BMPs in treating constituents that are  
 15 not being significantly improved by the STAs. The monitoring  
 16 program shall include monitoring of appropriate parameters at  
 17 representative locations.

18 2. The district shall continue to require and enforce  
 19 the BMP and other requirements of Rules 40E-61 and 40E-63,  
 20 Florida Administrative Code, during the terms of the existing  
 21 permits issued pursuant to those rules. Rule 40E-61, Florida  
 22 Administrative Code, may be amended to include the BMPs  
 23 required by Rule 40E-63, Florida Administrative Code. Prior  
 24 to the expiration of existing permits, and during each 5-year  
 25 term of subsequent permits as provided for in this section,  
 26 those rules shall be amended to implement a comprehensive  
 27 program of research, testing, and implementation of BMPs that  
 28 will address all water quality standards within the EAA and  
 29 Everglades Protection Area. Under this program:

30 a. EAA landowners, through the EAA Environmental  
 31 Protection District or otherwise, shall sponsor a program of

1 BMP research with qualified experts to identify appropriate  
2 BMPs.

3 b. Consistent with the water quality monitoring  
4 program, BMPs will be field-tested in a sufficient number of  
5 representative sites in the EAA to reflect soil and crop types  
6 and other factors that influence BMP design and effectiveness.

7 c. BMPs as required for varying crops and soil types  
8 shall be included in permit conditions in the 5-year permits  
9 issued pursuant to this section.

10 d. The district shall conduct research in cooperation  
11 with EAA landowners to identify water quality parameters that  
12 are not being significantly improved either by the STAs or the  
13 BMPs, and to identify further BMP strategies needed to address  
14 these parameters.

15 3. The Legislature finds that through the  
16 implementation of the Everglades BMPs Program and the  
17 implementation of the Everglades Construction Project,  
18 reasonable further progress will be made towards addressing  
19 water quality requirements of the EAA canals and the  
20 Everglades Protection Area. Permittees within the EAA and the  
21 C-139 Basin who are in full compliance with the conditions of  
22 permits under Rules 40E-61 and 40E-63, Florida Administrative  
23 Code, have made all payments required under the Everglades  
24 Program, and are in compliance with subparagraph (a)8., if  
25 applicable, shall not be required to implement additional  
26 water quality improvement measures, prior to December 31,  
27 2006, other than those required by subparagraph 2., with the  
28 following exceptions:

29 a. Nothing in this subparagraph shall limit the  
30 existing authority of the department or the district to limit  
31

1 or regulate discharges that pose a significant danger to the  
 2 public health and safety; and

3 b. New land uses and new stormwater management  
 4 facilities other than alterations to existing agricultural  
 5 stormwater management systems for water quality improvements  
 6 shall not be accorded the compliance established by this  
 7 section. Permits may be required to implement improvements or  
 8 alterations to existing agricultural water management systems.

9 4. As of December 31, 2006, all permits, including  
 10 those issued prior to that date, shall require implementation  
 11 of additional water quality measures, taking into account the  
 12 water quality treatment actually provided by the STAs and the  
 13 effectiveness of the BMPs. As of that date, no permittee's  
 14 discharge shall cause or contribute to any violation of water  
 15 quality standards in the Everglades Protection Area.

16 5. Effective immediately, landowners within the C-139  
 17 Basin shall not collectively exceed an annual average loading  
 18 of phosphorus of 28.7 metric tons based proportionately on the  
 19 historical rainfall for the C-139 Basin over the period of  
 20 October 1, 1978 to September 30, 1988. New surface inflows  
 21 shall not increase the annual average loading of phosphorus  
 22 stated above. Provided that the C-139 Basin does not exceed  
 23 this annual average loading, all landowners within the Basin  
 24 shall be in compliance for that year. Compliance  
 25 determinations for individual landowners within the C-139  
 26 Basin for remedial action, if the Basin is determined by the  
 27 district to be out of compliance for that year, shall be based  
 28 on the landowners' proportional share of the total phosphorus  
 29 loading of 28.7 metric tons. The total phosphorus discharge  
 30 load shall be determined by a method consistent with Appendix  
 31

1 40E-63-3, Florida Administrative Code, disregarding the 25-  
 2 percent phosphorus reduction factor.

3       6. The district, in cooperation with the department,  
 4 shall develop and implement a water quality monitoring program  
 5 to evaluate the quality of the discharge from the C-139 Basin.  
 6 Upon determination by the department or the district that the  
 7 C-139 Basin is exceeding any presently existing water quality  
 8 standards, the district shall require landowners within the C-  
 9 139 Basin to implement BMPs appropriate to the land uses  
 10 within the C-139 Basin consistent with subparagraph 2.  
 11 Thereafter, the provisions of subparagraphs 2.-4. shall apply  
 12 to the landowners within the C-139 Basin.

13       (g) Monitoring and control of exotic species.--

14       1. The district shall establish a biological  
 15 monitoring network throughout the Everglades Protection Area  
 16 and shall prepare a survey of exotic species at least every 2  
 17 years.

18       2. In addition, the district shall establish a program  
 19 to coordinate with federal, state or other governmental  
 20 entities the control of continued expansion and the removal of  
 21 these exotic species. The district's program shall give high  
 22 priority to species affecting the largest areal extent within  
 23 the Everglades Protection Area.

24       (5)(4) ACQUISITION AND LEASE OF STATE LANDS.--

25       (a) As used in this subsection, the term:

26       1. "Available land" means land within the EAA owned by  
 27 the board of trustees which is covered by any of the following  
 28 leases: Numbers 3543, 3420, 1447, 1971-5, and 3433, and the  
 29 southern one-third of number 2376 constituting 127 acres, more  
 30 or less.

1           2. "Board of trustees" means the Board of Trustees of  
 2 the Internal Improvement Trust Fund.

3           3. "Designated acre," as to any impacted farmer, means  
 4 an acre of land which is designated for STAs or water  
 5 retention or storage in the February 15, 1994, conceptual  
 6 design document and which is owned or leased by the farmer or  
 7 on which one or more agricultural products were produced  
 8 which, during the period beginning October 1, 1992, and ending  
 9 September 30, 1993, were processed at a facility owned by the  
 10 farmer.

11           4. "Impacted farmer" means a producer or processor of  
 12 agricultural commodities and includes subsidiaries and  
 13 affiliates that have designated acres.

14           5. "Impacted vegetable farmer" means an impacted  
 15 farmer in the EAA who uses more than 30 percent of the land  
 16 farmed by that farmer, whether owned or leased, for the  
 17 production of vegetables.

18           6. "Vegetable-area available land" means land within  
 19 the EAA owned by the board of trustees which is covered by  
 20 lease numbers 3422 and 1935/19359.

21           **(b)(a)** The Legislature declares that it is necessary  
 22 for the public health and welfare that the Everglades water  
 23 and water-related resources be conserved and protected. The  
 24 Legislature further declares that certain lands may be needed  
 25 for the treatment or storage of water prior to its release  
 26 into the Everglades Protection Area. The acquisition of real  
 27 property for this objective constitutes a public purpose for  
 28 which public funds may be expended. In addition to other  
 29 authority pursuant to this chapter to acquire real property,  
 30 the governing board of the district is empowered and  
 31 authorized to acquire fee title or easements by eminent domain

1 for the limited purpose of implementing stormwater management  
 2 systems, identified and described in the Everglades  
 3 Construction Project plan or determined necessary to meet  
 4 water quality requirements established by rule or permit.

5 (c) The Legislature determines it to be in the public  
 6 interest to minimize the potential loss of land and related  
 7 product supply to farmers and processors who are most affected  
 8 by acquisition of land for Everglades restoration and  
 9 hydroperiod purposes. Accordingly, subject to the priority  
 10 established below for vegetable-area available land, impacted  
 11 farmers shall have priority in the leasing of available land.  
 12 An impacted farmer shall have the right to lease each parcel  
 13 of available land, upon expiration of the existing lease, for  
 14 a term of 20 years and at a rental rate determined by  
 15 appraisal using established state procedures. For those  
 16 parcels of land that have previously been competitively bid,  
 17 the rental rate shall not be less than the rate the board of  
 18 trustees currently receives. The board of trustees may also  
 19 adjust the rental rate on an annual basis using an appropriate  
 20 index, and update the appraisals at 5-year intervals. If more  
 21 than one impacted farmer desires to lease a particular parcel  
 22 of available land, the one that has the greatest number of  
 23 designated acres shall have priority.

24 (d) Impacted vegetable farmers shall have priority in  
 25 leasing vegetable-area available land. An impacted vegetable  
 26 farmer shall have the right to lease vegetable-area available  
 27 land, upon expiration of the existing lease, for a term of 20  
 28 years or a term ending August 25, 2018, whichever term first  
 29 expires, and at a rental rate determined by appraisal using  
 30 established state procedures. If the lessee elects, such  
 31 terms may consist of an initial five-year term, with

1 successive options to renew at the lessee's option for  
 2 additional five-year terms. For extensions of leases on those  
 3 parcels of land that have previously been competitively bid,  
 4 the rental rate shall not be less than the rate the board of  
 5 trustees currently receives. The board of trustees may also  
 6 adjust the rental rate on an annual basis using an appropriate  
 7 index, and update the appraisals at 5-year intervals. If more  
 8 than one impacted vegetable farmer desires to lease vegetable-  
 9 area available land, the one that has the greatest number of  
 10 designated acres shall have priority.

11 (e) Impacted vegetable farmers with farming operations  
 12 in areas of Florida other than the EAA shall have priority in  
 13 leasing suitable surplus lands, where such lands are located  
 14 in the St. Johns River Water Management District and in the  
 15 vicinity of the other areas where such impacted vegetable  
 16 farmers operate. The suitability of such use shall be  
 17 determined solely by the St. Johns River Water Management  
 18 District. The St. Johns River Water Management District shall  
 19 make good-faith efforts to provide these impacted vegetable  
 20 farmers with the opportunity to lease such suitable lands to  
 21 offset their designated acres. The rental rate shall be  
 22 determined by appraisal using established procedures.

23 (f) The corporation conducting correctional work  
 24 programs under part II of chapter 946 shall be entitled to  
 25 renew, for a period of 20 years, its lease with the Department  
 26 of Corrections which expires June 30, 1990, which includes the  
 27 utilization of land for the production of sugar cane, and  
 28 which is identified as lease number 2671 with the board of  
 29 trustees.

30 (g) Except as specified in paragraph (f), once the  
 31 leases or lease extensions specified in this subsection have

1 been granted and become effective, the trustees shall retain  
 2 the authority to terminate after 9 years any such lease or  
 3 lease extension upon 2 years' notice to the lessee and a  
 4 finding by the trustees that the lessee has ceased to be  
 5 impacted as provided in this section. In that event, the  
 6 outgoing lessee is entitled to be compensated for any  
 7 documented, unamortized planting costs associated with the  
 8 lease and any unamortized capital costs incurred prior to the  
 9 notice. In addition, the trustees may terminate such lease or  
 10 lease extension if the lessee fails to comply with, and after  
 11 reasonable notice and opportunity to correct or fails to  
 12 correct, any material provision of the lease or its obligation  
 13 under this section.

14 ~~(b)--In addition to the acquisition of lands by eminent~~  
 15 ~~domain pursuant to paragraph (a), the Board of Trustees of the~~  
 16 ~~Internal Improvement Trust Fund and the district may enter~~  
 17 ~~into cooperative agreements with property owners within a~~  
 18 ~~stormwater management system area to provide for the exchange~~  
 19 ~~of property subject to condemnation under paragraph (a) for~~  
 20 ~~state-owned property which the owner or an affiliate of such~~  
 21 ~~owner leases from the board of trustees or other agency of the~~  
 22 ~~state and which was used for agricultural production on~~  
 23 ~~January 1, 1991. Any such agreement shall include the~~  
 24 ~~following:~~

25 ~~1. The landowner shall acquire property covered by the~~  
 26 ~~lease by paying any deficiency in cash or by transferring~~  
 27 ~~other private lands which the district or any other agency of~~  
 28 ~~the state has sought to acquire, or by a combination of land~~  
 29 ~~transfer and cash payment.~~

30

31

1           ~~2.--The exchange shall be made on the basis of~~  
 2 ~~appraisals performed in a manner consistent with the~~  
 3 ~~provisions of sr-253-025(7);~~

4           ~~3.--Title to any land conveyed to the Board of Trustees~~  
 5 ~~of the Internal Improvement Trust Fund as a result of such an~~  
 6 ~~exchange shall be conveyed to the South Florida Water~~  
 7 ~~Management District upon payment of the appraised value~~  
 8 ~~thereof by the district to the board of trustees;~~

9           (6) EVERGLADES AGRICULTURAL PRIVILEGE TAX.--

10           (a) There is hereby imposed an annual Everglades  
 11 agricultural privilege tax for the privilege of conducting an  
 12 agricultural trade or business on:

13           1. All real property located within the EAA that is  
 14 classified as agricultural under the provisions of chapter  
 15 193; and

16           2. Leasehold or other interests in real property  
 17 located within the EAA owned by the United States, the state,  
 18 or any agency thereof permitting the property to be used for  
 19 agricultural purposes in a manner that would allow such  
 20 property to be classified as agricultural under the provisions  
 21 of chapter 193 if not governmentally owned, whether or not  
 22 such property is actually classified as agricultural under the  
 23 provisions of chapter 193.

24  
 25 It is hereby determined by the Legislature that the privilege  
 26 of conducting an agricultural trade or business on such  
 27 property constitutes a reasonable basis for imposition of the  
 28 Everglades agricultural privilege tax and that logical  
 29 differences exist between the agricultural use of such  
 30 property and the use of other property within the EAA for  
 31 residential or nonagricultural commercial use. The Everglades

1 agricultural privilege tax shall constitute a lien against the  
 2 property, or the leasehold or other interest in governmental  
 3 property permitting such property to be used for agricultural  
 4 purposes, described on the Everglades agricultural privilege  
 5 tax roll. The lien shall be in effect from January 1 of the  
 6 year the tax notice is mailed until discharged by payment and  
 7 shall be equal in rank and dignity with the liens of all  
 8 state, county, district, or municipal taxes and non-ad valorem  
 9 assessments imposed pursuant to general law, special act, or  
 10 local ordinance and shall be superior in dignity to all other  
 11 liens, titles, and claims.

12 (b) The Everglades agricultural privilege tax, other  
 13 than for leasehold or other interests in governmental property  
 14 permitting such property to be used for agricultural purposes,  
 15 shall be collected in the manner provided for ad valorem  
 16 taxes. By September 15 of each year, the governing board of  
 17 the district shall certify by resolution an Everglades  
 18 agricultural privilege tax roll on compatible electronic  
 19 medium to the tax collector of each county in which a portion  
 20 of the EAA is located. The district shall also produce one  
 21 copy of the roll in printed form which shall be available for  
 22 inspection by the public. The district shall post the  
 23 Everglades agricultural privilege tax for each parcel on the  
 24 roll. The tax collector shall not accept any such roll that  
 25 is not certified on compatible electronic medium and that does  
 26 not contain the posting of the Everglades agricultural  
 27 privilege tax for each parcel. It is the responsibility of  
 28 the district that such rolls be free of errors and omissions.  
 29 Alterations to such rolls may be made by the executive  
 30 director of the district, or a designee, up to 10 days before  
 31 certification. If the tax collector or any taxpayer discovers

1 errors or omissions on such roll, such person may request the  
 2 district to file a corrected roll or a correction of the  
 3 amount of any Everglades agricultural privilege tax. Other  
 4 than for leasehold or other interests in governmental property  
 5 permitting such property to be used for agricultural purposes,  
 6 Everglades agricultural privilege taxes collected pursuant to  
 7 this section shall be included in the combined notice for ad  
 8 valorem taxes and non-ad valorem assessments provided for in  
 9 s. 197.3635. Such Everglades agricultural privilege taxes  
 10 shall be listed in the portion of the combined notice utilized  
 11 for non-ad valorem assessments. A separate mailing is  
 12 authorized only as a solution to the most exigent factual  
 13 circumstances. However, if a tax collector cannot merge an  
 14 Everglades agricultural privilege tax roll to produce such a  
 15 notice, the tax collector shall mail a separate notice of  
 16 Everglades agricultural privilege taxes or shall direct the  
 17 district to mail such a separate notice. In deciding whether  
 18 a separate mailing is necessary, the tax collector shall  
 19 consider all costs to the district and taxpayers of such a  
 20 separate mailing and the adverse effects to the taxpayers of  
 21 delayed and multiple notices. The district shall bear all  
 22 costs associated with any separate notice. Everglades  
 23 agricultural privilege taxes collected pursuant to this  
 24 section shall be subject to all collection provisions of  
 25 chapter 197, including provisions relating to discount for  
 26 early payment, prepayment by installment method, deferred  
 27 payment, penalty for delinquent payment, and issuance and sale  
 28 of tax certificates and tax deeds for nonpayment. Everglades  
 29 agricultural privilege taxes for leasehold or other interests  
 30 in property owned by the United States, the state, or any  
 31 agency thereof permitting such property to be used for

1 agricultural ~~taxes~~ shall be included on the notice provided  
 2 pursuant to s. 196.31, a copy of which shall be provided to  
 3 lessees or other interest holders registering with the  
 4 district, and shall be collected from the lessee or other  
 5 appropriate interest holder and remitted to the district  
 6 immediately upon collection. Everglades agricultural  
 7 privilege taxes included on the statement provided pursuant to  
 8 s. 196.31 shall be due and collected on or prior to the next  
 9 April 1 following provision of the notice. Proceeds of the  
 10 Everglades agricultural privilege taxes shall be distributed  
 11 by the tax collector to the district. Each tax collector  
 12 shall be paid a commission equal to the actual cost of  
 13 collection, not to exceed 2 percent, on the amount of  
 14 Everglades agricultural privilege taxes collected and  
 15 remitted. Notwithstanding any general law or special act to  
 16 the contrary, Everglades agricultural privilege taxes shall  
 17 not be included on the notice of proposed property taxes  
 18 provided for in s. 200.069.

19 (c) The initial Everglades agricultural privilege tax  
 20 roll shall be certified for the tax notices mailed in November  
 21 1994. Incentive credits to the Everglades agricultural  
 22 privilege taxes to be included on the initial Everglades  
 23 agricultural privilege tax roll, if any, shall be based upon  
 24 the total phosphorus load reduction for the year ending April  
 25 30, 1993. The Everglades agricultural privilege taxes for  
 26 each year shall be computed in the following manner:

27 1. Annual Everglades agricultural privilege taxes  
 28 shall be charged for the privilege of conducting an  
 29 agricultural trade or business on each acre of real property  
 30 or portion thereof. The annual Everglades agricultural  
 31 privilege tax shall be \$24.89 per acre for the tax notices

1 mailed in November 1994 through November 1997; \$27 per acre  
 2 for the tax notices mailed in November 1998 through November  
 3 2001; \$31 per acre for the tax notices mailed in November 2002  
 4 through November 2005; and \$35 per acre for the tax notices  
 5 mailed in November 2006 through November 2013.

6 2. It is the intent of the Legislature to encourage  
 7 the performance of best management practices to maximize the  
 8 reduction of phosphorus loads at points of discharge from the  
 9 EAA by providing an incentive credit against the Everglades  
 10 agricultural privilege taxes set forth in subparagraph 1. The  
 11 total phosphorus load reduction shall be measured for the  
 12 entire EAA by comparing the actual measured total phosphorus  
 13 load attributable to the EAA for each annual period ending on  
 14 April 30 to the total estimated phosphorus load that would  
 15 have occurred during the 1979-1988 base period using the model  
 16 for total phosphorus load determinations provided in Rule 40E-  
 17 63, Florida Administrative Code, utilizing the technical  
 18 information and procedures contained in Section IV-EAA Period  
 19 of Record Flow and Phosphorus Load Calculations; Section V-  
 20 Monitoring Requirements; and Section VI-Phosphorus Load  
 21 Allocations and Compliance Calculations of the Draft Technical  
 22 Document in Support of Rule 40E-63, Florida Administrative  
 23 Code - Works of the District within the Everglades, March 3,  
 24 1992, and the Standard Operating Procedures for Water Quality  
 25 Collection in Support of the Everglades Water Condition  
 26 Report, dated February 18, 1994. The model estimates the  
 27 total phosphorus load that would have occurred during the  
 28 1979-1988 base period by substituting the rainfall conditions  
 29 for such annual period ending April 30 for the conditions that  
 30 were used to calibrate the model for the 1979-1988 base  
 31 period. The data utilized to calculate the actual loads

1 attributable to the EAA shall be adjusted to eliminate the  
 2 effect of any load and flow that were not included in the  
 3 1979-1988 base period as defined in Rule 40Z-63, Florida  
 4 Administrative Code. The incorporation of the method of  
 5 measuring the total phosphorus load reduction provided in this  
 6 subparagraph is intended to provide a legislatively approved  
 7 aid to the governing board of the district in making an annual  
 8 ministerial determination of any incentive credit.

9 3. Phosphorus load reductions calculated in the manner  
 10 described in subparagraph 2. and rounded to the nearest whole  
 11 percentage point for each annual period beginning on May 1 and  
 12 ending on April 30 shall be used to compute incentive credits  
 13 to the Everglades agricultural privilege taxes to be included  
 14 on the annual tax notices mailed in November of the next  
 15 ensuing calendar year. Incentive credits, if any, will reduce  
 16 the Everglades agricultural privilege taxes set forth in  
 17 subparagraph 1. only to the extent that the phosphorus load  
 18 reduction exceeds 25 percent. Subject to subparagraph 4., the  
 19 reduction of phosphorus load by each percentage point in  
 20 excess of 25 percent, computed for the 12-month period ended  
 21 on April 30 of the calendar year immediately preceding  
 22 certification of the Everglades agricultural privilege tax,  
 23 shall result in the following incentive credits: \$0.33 per  
 24 acre for the tax notices mailed in November 1994 through  
 25 November 1997; \$0.54 per acre for the tax notices mailed in  
 26 November 1998 through November 2001; \$0.61 per acre for the  
 27 tax notices mailed in November 2002 through November 2005, and  
 28 \$0.65 per acre for the tax notices mailed in November 2006  
 29 through November 2013. The determination of incentive  
 30 credits, if any, shall be documented by resolution of the  
 31 governing board of the district adopted prior to or at the

1 time of the adoption of its resolution certifying the annual  
 2 Everglades agricultural privilege tax roll to the appropriate  
 3 tax collector.

4 4. Notwithstanding subparagraph 3., incentive credits  
 5 for the performance of best management practices shall not  
 6 reduce the minimum annual Everglades agricultural privilege  
 7 tax to less than \$24.89 per acre, which annual Everglades  
 8 agricultural privilege tax as adjusted in the manner required  
 9 by paragraph (e) shall be known as the "minimum tax." To the  
 10 extent that the application of incentive credits for the  
 11 performance of best management practices would reduce the  
 12 annual Everglades agricultural privilege tax to an amount less  
 13 than the minimum tax, then the unused or excess incentive  
 14 credits for the performance of best management practices shall  
 15 be carried forward, on a phosphorus load percentage basis, to  
 16 be applied as incentive credits in subsequent years. Any  
 17 unused or excess incentive credits remaining after  
 18 certification of the Everglades agricultural privilege tax  
 19 roll for the tax notices mailed in November 2013 shall be  
 20 canceled.

21 5. Notwithstanding the schedule of Everglades  
 22 agricultural privilege taxes set forth in subparagraph 1., the  
 23 owner, lessee, or other appropriate interest holder of any  
 24 property shall be entitled to have the Everglades agricultural  
 25 privilege tax for any parcel of property reduced to the  
 26 minimum tax, commencing with the tax notices mailed in  
 27 November 1996 for parcels of property participating in the  
 28 early baseline option as defined in Rule 40E-63, Florida  
 29 Administrative Code, and with the tax notices mailed in  
 30 November 1997 for parcels of property not participating in the  
 31 early baseline option, upon compliance with the requirements

1 set forth in this subparagraph. The owner, lessee, or other  
 2 appropriate interest holder shall file an application with the  
 3 executive director of the district prior to July 1 for  
 4 consideration of reduction to the minimum tax on the  
 5 Everglades agricultural privilege tax roll to be certified for  
 6 the tax notice mailed in November of the same calendar year  
 7 and shall have the burden of proving the reduction in  
 8 phosphorus load attributable to such parcel of property. The  
 9 phosphorus load reduction for each discharge structure serving  
 10 the parcel shall be measured as provided in Rule 40E-63,  
 11 Florida Administrative Code, and the permit issued for such  
 12 property pursuant to Rule 40E-63, Florida Administrative Code.  
 13 A parcel of property which has achieved the following annual  
 14 phosphorus load reduction standards shall have the minimum tax  
 15 included on the annual tax notice mailed in November of the  
 16 next ensuing calendar year: 30 percent or more for the tax  
 17 notices mailed in November 1994 through November 1997; 35  
 18 percent or more for the tax notices mailed in November 1998  
 19 through November 2001; 40 percent or more for the tax notices  
 20 mailed in November 2002 through November 2005; and 45 percent  
 21 or more for the tax notices mailed in November 2006 through  
 22 November 2013. In addition, any parcel of property that  
 23 achieves an annual flow weighted mean concentration of 50  
 24 parts per billion (ppb) of phosphorus at each discharge  
 25 structure serving the property for any year ending April 30  
 26 shall have the minimum tax included on the annual tax notice  
 27 mailed in November of the next ensuing calendar year. Any  
 28 annual phosphorus reductions that exceed the amount necessary  
 29 to have the minimum tax included on the annual tax notice for  
 30 any parcel of property shall be carried forward to the  
 31 subsequent years' phosphorus load reduction to determine if

1 the minimum tax shall be included on the annual tax notice.

2 The governing board of the district shall deny or grant the  
 3 application by resolution adopted prior to or at the time of  
 4 the adoption of its resolution certifying the annual  
 5 Everglades agricultural privilege tax roll to the appropriate  
 6 tax collector.

7 6. The annual Everglades agricultural privilege tax  
 8 for the tax notices mailed in November 2014 and thereafter  
 9 shall be \$10 per acre.

10 (d) For purposes of this paragraph, "vegetable  
 11 acreage" means, for each tax year, any portion of a parcel of  
 12 property used for a period of not less than 8 months for the  
 13 production of vegetable crops, including sweet corn, during  
 14 the 12 months ended September 30 of the year preceding the tax  
 15 year. Land preparation, crop rotation, and fallow periods  
 16 shall not disqualify property from classification as vegetable  
 17 acreage if such property is actually used for the production  
 18 of vegetable crops.

19 1. It is hereby determined by the Legislature that  
 20 vegetable farming in the EAA is subject to volatile market  
 21 conditions and is particularly subject to crop loss or damage  
 22 due to freezes, flooding, and drought. It is further  
 23 determined by the Legislature that, due to the foregoing  
 24 factors, imposition of an Everglades agricultural privilege  
 25 tax upon vegetable acreage in excess of the minimum tax could  
 26 create a severe economic hardship and impair the production of  
 27 vegetable crops. Notwithstanding the schedule of Everglades  
 28 agricultural privilege taxes set forth in subparagraph (c)1.,  
 29 the Everglades agricultural privilege tax for vegetable  
 30 acreage shall be the minimum tax, and vegetable acreage shall  
 31 not be entitled to any incentive credits.

2. If the Governor, the President of the United States, or the United States Department of Agriculture declares the existence of a state of emergency or disaster resulting from extreme natural conditions impairing the ability of vegetable acreage to produce crops, payment of the Everglades agricultural privilege taxes imposed for the privilege of conducting an agricultural trade or business on such property shall be deferred for a period of 1 year, and all subsequent annual payments shall be deferred for the same period.

a. If the declaration occurs between April 1 and October 31, the Everglades agricultural privilege tax to be included on the next annual tax notice will be deferred to the subsequent annual tax notice.

b. If the declaration occurs between November 1 and March 31 and the Everglades agricultural privilege tax included on the most recent tax notice has not been paid, such Everglades agricultural privilege tax will be deferred to the next annual tax notice.

c. If the declaration occurs between November 1, and March 31 and the Everglades agricultural privilege tax included on the most recent tax notice has been paid, the Everglades agricultural privilege tax to be included on the next annual tax notice will be deferred to the subsequent annual tax notice.

3. In the event payment of Everglades agricultural privilege taxes is deferred pursuant to this paragraph, the District must record a notice in the official records of each county in which vegetable acreage subject to such deferment is located. The recorded notice must describe each parcel of property as to which Everglades agricultural privilege taxes

1 have been deferred and the amount deferred for such property.  
 2 If all or any portion of the property as to which Everglades  
 3 agricultural privilege taxes have been deferred ceases to be  
 4 classified as agricultural under the provisions of chapter 193  
 5 or otherwise subject to the Everglades agricultural privilege  
 6 tax, all deferred amounts must be included on the tax notice  
 7 for such property mailed in November of the first tax year for  
 8 which such property is not subject to the Everglades  
 9 agricultural privilege tax. After a property owner has paid  
 10 all outstanding Everglades agricultural privilege taxes,  
 11 including any deferred amounts, the district shall provide the  
 12 property owner with a recordable instrument evidencing the  
 13 payment of all outstanding amounts.

14 4. The owner, lessee, or other appropriate interest  
 15 holder must file an application with the executive director of  
 16 the district prior to July 1 for classification of a portion  
 17 of the property as vegetable acreage on the Everglades  
 18 agricultural privilege tax roll to be certified for the tax  
 19 notice mailed in November of the same calendar year and shall  
 20 have the burden of proving the number of acres used for the  
 21 production of vegetable crops during the year in which  
 22 incentive credits are determined and the period of such use.  
 23 The governing board of the district shall deny or grant the  
 24 application by resolution adopted prior to or at the time of  
 25 the adoption of its resolution certifying the annual  
 26 Everglades agricultural privilege tax roll to the appropriate  
 27 tax collector.

28 5. This paragraph does not relieve vegetable acreage  
 29 from the performance of best management practices specified in  
 30 Rule 40E-63, Florida Administrative Code.  
 31

1 (e) If, for any tax year, the number of acres subject  
 2 to the Everglades agricultural privilege tax is less than the  
 3 number of acres included on the Everglades agricultural  
 4 privilege tax roll certified for the tax notices mailed in  
 5 November 1994, the minimum tax shall be subject to increase in  
 6 the manner provided in this paragraph. In determining the  
 7 number of acres subject to the Everglades agricultural  
 8 privilege tax for purposes of this paragraph, property  
 9 acquired by a not-for-profit entity for purposes of  
 10 conservation and preservation, the United States, or the  
 11 state, or any agency thereof, and removed from the Everglades  
 12 agricultural privilege tax roll after January 1, 1994, shall  
 13 be treated as subject to the tax even though no tax is imposed  
 14 or due: in its entirety, for tax notices mailed prior to  
 15 November 2000; to the extent its area exceeds 4 percent of the  
 16 total area of property subject to the Everglades agricultural  
 17 tax, for tax notices mailed in November 2000 through November  
 18 2005; and to the extent its area exceeds 8 percent of the  
 19 total area of property subject to the Everglades agricultural  
 20 tax, for tax notices mailed in November 2006 and thereafter.  
 21 For each tax year, the district shall determine the amount, if  
 22 any, by which the sum of the following exceeds \$12,367,000:

23 1. The product of the minimum tax multiplied by the  
 24 number of acres subject to the Everglades agricultural  
 25 privilege tax; and

26 2. The ad valorem tax increment, as defined in this  
 27 subparagraph.

28  
 29 The aggregate of such annual amounts, less any portion  
 30 previously applied to eliminate or reduce future increases in  
 31 the minimum tax, as described in this subparagraph, shall be

1 known as the "excess tax amount." If for any tax year, the  
 2 amount computed by multiplying the minimum tax by the number  
 3 of acres then subject to the Everglades agricultural privilege  
 4 tax is less than \$12,367,000, the excess tax amount shall be  
 5 applied in the following manner. If the excess tax amount  
 6 exceeds such difference, an amount equal to the difference  
 7 shall be deducted from the excess tax amount and applied to  
 8 eliminate any increase in the minimum tax. If such difference  
 9 exceeds the excess tax amount, the excess tax amount shall be  
 10 applied to reduce any increase in the minimum tax. In such  
 11 event, a new minimum tax shall be computed by subtracting the  
 12 remaining excess tax amount from \$12,367,000 and dividing the  
 13 result by the number of acres subject to the Everglades  
 14 agricultural privilege tax for such tax year. For purposes of  
 15 this subparagraph, the "ad valorem tax increment" means 50  
 16 percent of the difference between the amount of ad valorem  
 17 taxes actually imposed by the district for the immediate prior  
 18 tax year against property included on the Everglades  
 19 agricultural privilege tax roll certified for the tax notices  
 20 mailed in November 1994 that was not subject to the Everglades  
 21 agricultural privilege tax during the immediate prior tax year  
 22 and the amount of ad valorem taxes that would have been  
 23 imposed against such property for the immediate prior tax year  
 24 if the taxable value of each acre had been equal to the  
 25 average taxable value of all other land classified as  
 26 agricultural within the EAA for such year; however, the ad  
 27 valorem tax increment for any year shall not exceed the amount  
 28 that would have been derived from such property from  
 29 imposition of the minimum tax during the immediate prior tax  
 30 year.  
 31

1 (f) Any owner, lessee, or other appropriate interest  
 2 holder of property subject to the Everglades agricultural  
 3 privilege tax may contest the Everglades agricultural  
 4 privilege tax by filing an action in circuit court.

5 1. No action may be brought to contest the Everglades  
 6 agricultural privilege tax after 60 days from the date the tax  
 7 notice that includes the Everglades agricultural privilege tax  
 8 is mailed by the tax collector. Before an action to contest  
 9 the Everglades agricultural privilege tax may be brought, the  
 10 taxpayer shall pay to the tax collector the amount of the  
 11 Everglades agricultural privilege tax which the taxpayer  
 12 admits in good faith to be owing. The tax collector shall  
 13 issue a receipt for the payment and the receipt shall be filed  
 14 with the complaint. Payment of an Everglades agricultural  
 15 privilege tax shall not be deemed an admission that such tax  
 16 was due and shall not prejudice the right to bring a timely  
 17 action to challenge such tax and seek a refund. No action to  
 18 contest the Everglades agricultural privilege tax may be  
 19 maintained, and such action shall be dismissed, unless all  
 20 Everglades agricultural privilege taxes imposed in years after  
 21 the action is brought, which the taxpayer in good faith admits  
 22 to be owing, are paid before they become delinquent. The  
 23 requirements of this subparagraph are jurisdictional.

24 2. In any action involving a challenge of the  
 25 Everglades agricultural privilege tax, the court shall assess  
 26 all costs. If the court finds that the amount of tax owed by  
 27 the taxpayer is greater than the amount the taxpayer has in  
 28 good faith admitted and paid, it shall enter judgment against  
 29 the taxpayer for the deficiency and for interest on the  
 30 deficiency at the rate of 12 percent per year from the date  
 31 the tax became delinquent. If it finds that the amount of tax

1 which the taxpayer has admitted to be owing is grossly  
 2 disproportionate to the amount of tax found to be due and that  
 3 the taxpayer's admission was not made in good faith, the court  
 4 shall also assess a penalty at the rate of 25 percent of the  
 5 deficiency per year from the date the tax became delinquent.  
 6 The court may issue injunctions to restrain the sale of  
 7 property for any Everglades agricultural privilege tax which  
 8 appears to be contrary to law or equity.

9 (g) Notwithstanding any contrary provisions in chapter  
 10 120, or any provision of any other law, an action in circuit  
 11 court shall be the exclusive remedy to challenge the  
 12 assessment of an Everglades agricultural privilege tax and  
 13 owners of property subject to the Everglades agricultural  
 14 privilege tax shall have no right or standing to initiate  
 15 administrative proceedings under chapter 120 to challenge the  
 16 assessment of an Everglades agricultural privilege tax,  
 17 including specifically, and without limitation, the annual  
 18 certification by the district governing board of the  
 19 Everglades agricultural privilege tax roll to the appropriate  
 20 tax collector, the annual calculation of any incentive credit  
 21 for phosphorus level reductions, the denial of an application  
 22 for exclusion from the Everglades agricultural privilege tax,  
 23 the calculation of the minimum tax adjustments provided in  
 24 paragraph (e), the denial of an application for reduction to  
 25 the minimum tax, and the denial of any application for  
 26 classification as vegetable acreage, deferment of payment for  
 27 vegetable acreage, or correction of any alleged error in the  
 28 Everglades agricultural privilege tax roll.

29 (h) In recognition of the findings set forth in  
 30 subsection (1), the Legislature finds that the assessment and  
 31 use of the Everglades agricultural privilege tax is a matter

1 of concern to all areas of Florida and the Legislature intends  
 2 this act to be a general law authorization of the tax within  
 3 the meaning of s. 9, Art. VII of the State Constitution.

4 (7) C-139 AGRICULTURAL PRIVILEGE TAX.--

5 (a) There is hereby imposed an annual C-139  
 6 agricultural privilege tax for the privilege of conducting an  
 7 agricultural trade or business on:

8 1. All real property located within the C-139 Basin  
 9 that is classified as agricultural under the provisions of  
 10 chapter 193; and

11 2. Leasehold or other interests in real property  
 12 located within the C-139 Basin owned by the United States, the  
 13 state, or any agency thereof permitting the property to be  
 14 used for agricultural purposes in a manner that would result  
 15 in such property being classified as agricultural under the  
 16 provisions of chapter 193 if not governmentally owned, whether  
 17 or not such property is actually classified as agricultural  
 18 under the provisions of chapter 193.

19  
 20 It is hereby determined by the Legislature that the privilege  
 21 of conducting an agricultural trade or business on such  
 22 property constitutes a reasonable basis for imposing the C-139  
 23 agricultural privilege tax and that logical differences exist  
 24 between the agricultural use of such property and the use of  
 25 other property within the C-139 Basin for residential or  
 26 nonagricultural commercial use. The C-139 agricultural  
 27 privilege tax shall constitute a lien against the property, or  
 28 the leasehold or other interest in governmental property  
 29 permitting such property to be used for agricultural purposes,  
 30 described on the C-139 agricultural privilege tax roll. The  
 31 lien shall be in effect from January 1 of the year the tax

1 notice is mailed until discharged by payment and shall be  
 2 equal in rank and dignity with the liens of all state, county,  
 3 district, or municipal taxes and non-ad valorem assessments  
 4 imposed pursuant to general law, special act, or local  
 5 ordinance and shall be superior in dignity to all other liens,  
 6 titles, and claims.

7       **(b)** The C-139 agricultural privilege tax, other than  
 8 for leasehold or other interests in governmental property  
 9 permitting such property to be used for agricultural purposes,  
 10 shall be collected in the manner provided for ad valorem  
 11 taxes. By September 15 of each year, the governing board of  
 12 the district shall certify by resolution a C-139 agricultural  
 13 privilege tax roll on compatible electronic medium to the tax  
 14 collector of each county in which a portion of the C-139 Basin  
 15 is located. The district shall also produce one copy of the  
 16 roll in printed form which shall be available for inspection  
 17 by the public. The district shall post the C-139 agricultural  
 18 privilege tax for each parcel on the roll. The tax collector  
 19 shall not accept any such roll that is not certified on  
 20 compatible electronic medium and that does not contain the  
 21 posting of the C-139 agricultural privilege tax for each  
 22 parcel. It is the responsibility of the district that such  
 23 rolls be free of errors and omissions. Alterations to such  
 24 rolls may be made by the executive director of the district,  
 25 or a designee, up to 10 days before certification. If the tax  
 26 collector or any taxpayer discovers errors or omissions on  
 27 such roll, such person may request the district to file a  
 28 corrected roll or a correction of the amount of any C-139  
 29 agricultural privilege tax. Other than for leasehold or other  
 30 interests in governmental property permitting such property to  
 31 be used for agricultural purposes, C-139 agricultural

1 privilege taxes collected pursuant to this section shall be  
 2 included in the combined notice for ad valorem taxes and non-  
 3 ad valorem assessments provided for in s. 197.3635. Such C-  
 4 139 agricultural privilege taxes shall be listed in the  
 5 portion of the combined notice utilized for non-ad valorem  
 6 assessments. A separate mailing is authorized only as a  
 7 solution to the most exigent factual circumstances. However,  
 8 if a tax collector cannot merge a C-139 agricultural privilege  
 9 tax roll to produce such a notice, the tax collector shall  
 10 mail a separate notice of C-139 agricultural privilege taxes  
 11 or shall direct the district to mail such a separate notice.  
 12 In deciding whether a separate mailing is necessary, the tax  
 13 collector shall consider all costs to the district and  
 14 taxpayers of such a separate mailing and the adverse effects  
 15 to the taxpayers of delayed and multiple notices. The  
 16 district shall bear all costs associated with any separate  
 17 notice. C-139 agricultural privilege taxes collected pursuant  
 18 to this section shall be subject to all collection provisions  
 19 of chapter 197, including provisions relating to discount for  
 20 early payment, prepayment by installment method, deferred  
 21 payment, penalty for delinquent payment, and issuance and sale  
 22 of tax certificates and tax deeds for nonpayment. C-139  
 23 agricultural privilege taxes for leasehold or other interests  
 24 in property owned by the United States, the state, or any  
 25 agency thereof permitting such property to be used for  
 26 agricultural purposes shall be included on the notice provided  
 27 pursuant to s. 196.31, a copy of which shall be provided to  
 28 lessees or other interest holders registering with the  
 29 district, and shall be collected from the lessee or other  
 30 appropriate interest holder and remitted to the district  
 31 immediately upon collection. C-139 agricultural privilege

1 taxes included on the statement provided pursuant to s. 196.31  
 2 shall be due and collected on or prior to the next April 1  
 3 following provision of the notice. Proceeds of the C-139  
 4 agricultural privilege taxes shall be distributed by the tax  
 5 collector to the district. Each tax collector shall be paid a  
 6 commission equal to the actual cost of collection, not to  
 7 exceed 2 percent, on the amount of C-139 agricultural  
 8 privilege taxes collected and remitted. Notwithstanding any  
 9 general law or special act to the contrary, C-139 agricultural  
 10 privilege taxes shall not be included on the notice of  
 11 proposed property taxes provided in s. 200.069.

12 (c) The initial C-139 agricultural privilege tax roll  
 13 shall be certified for the tax notices mailed in November  
 14 1994. The C-139 agricultural privilege taxes for the tax  
 15 notices mailed in November 1994 through November 2013 shall be  
 16 computed by dividing \$654,656 by the number of acres included  
 17 on the C-139 agricultural privilege tax roll for such year,  
 18 excluding any property located within the C-139 Annex. The C-  
 19 139 agricultural privilege taxes for the tax notices mailed in  
 20 November 2014 and thereafter shall be \$1.80 per acre.

21 (d) For purposes of this paragraph, "vegetable  
 22 acreage" means, for each tax year, any portion of a parcel of  
 23 property used for a period of not less than 8 months for the  
 24 production of vegetable crops, including sweet corn, during  
 25 the 12 months ended September 30 of the year preceding the tax  
 26 year. Land preparation, crop rotation, and fallow periods  
 27 shall not disqualify property from classification as vegetable  
 28 acreage if such property is actually used for the production  
 29 of vegetable crops.

30 1. If either the Governor, the President of the United  
 31 States, or the United States Department of Agriculture

1 declares the existence of a state of emergency or disaster  
2 resulting from extreme natural conditions impairing the  
3 ability of vegetable acreage to produce crops, payment of the  
4 C-139 agricultural privilege taxes imposed for the privilege  
5 of conducting an agricultural trade or business on such  
6 property shall be deferred for a period of 1 year, and all  
7 subsequent annual payments shall be deferred for the same  
8 period.

9 a. If the declaration occurs between April 1 and  
10 October 31, the C-139 agricultural privilege tax to be  
11 included on the next annual tax notice will be deferred to the  
12 subsequent annual tax notice.

13 b. If the declaration occurs between November 1 and  
14 March 31 and the C-139 agricultural privilege tax included on  
15 the most recent tax notice has not been paid, such C-139  
16 agricultural privilege tax will be deferred to the next annual  
17 tax notice.

18 c. If the declaration occurs between November 1, and  
19 March 31 and the C-139 agricultural privilege tax included on  
20 the most recent tax notice has been paid, the C-139  
21 agricultural privilege tax to be included on the next annual  
22 tax notice will be deferred to the subsequent annual tax  
23 notice.

24 2. In the event payment of C-139 agricultural  
25 privilege taxes is deferred pursuant to this paragraph, the  
26 District must record a notice in the official records of each  
27 county in which vegetable acreage subject to such deferment is  
28 located. The recorded notice must describe each parcel of  
29 property as to which C-139 agricultural privilege taxes have  
30 been deferred and the amount deferred for such property. If  
31 all or any portion of the property as to which C-139

1 agricultural privilege taxes have been deferred ceases to be  
2 classified as agricultural under the provisions of chapter 193  
3 or otherwise subject to the C-139 agricultural privilege tax,  
4 all deferred amounts must be included on the tax notice for  
5 such property mailed in November of the first tax year for  
6 which such property is not subject to the C-139 agricultural  
7 privilege tax. After a property owner has paid all  
8 outstanding C-139 agricultural privilege taxes, including any  
9 deferred amounts, the district shall provide the property  
10 owner with a recordable instrument evidencing the payment of  
11 all outstanding amounts.

12 3. The owner, lessee, or other appropriate interest  
13 holder shall file an application with the executive director  
14 of the district prior to July 1 for classification of a  
15 portion of the property as vegetable acreage on the C-139  
16 agricultural privilege tax roll to be certified for the tax  
17 notice mailed in November of the same calendar year and shall  
18 have the burden of proving the number of acres used for the  
19 production of vegetable crops during the year in which  
20 incentive credits are determined and the period of such use.  
21 The governing board of the district shall deny or grant the  
22 application by resolution adopted prior to or at the time of  
23 the adoption of its resolution certifying the annual C-139  
24 agricultural privilege tax roll to the appropriate tax  
25 collector.

26 4. This paragraph does not relieve vegetable acreage  
27 from the performance of best management practices specified in  
28 Rule 40E-63, Florida Administrative Code.

29 (e) Any owner, lessee, or other appropriate interest  
30 holder of property subject to the C-139 agricultural privilege  
31

1 tax may contest the C-139 agricultural privilege tax by filing  
 2 an action in circuit court.

3 1. No action may be brought to contest the C-139  
 4 agricultural privilege tax after 60 days from the date the tax  
 5 notice that includes the C-139 agricultural privilege tax is  
 6 mailed by the tax collector. Before an action to contest the  
 7 C-139 agricultural privilege tax may be brought, the taxpayer  
 8 shall pay to the tax collector the amount of the C-139  
 9 agricultural privilege tax which the taxpayer admits in good  
 10 faith to be owing. The tax collector shall issue a receipt  
 11 for the payment and the receipt shall be filed with the  
 12 complaint. Payment of an C-139 agricultural privilege tax  
 13 shall not be deemed an admission that such tax was due and  
 14 shall not prejudice the right to bring a timely action to  
 15 challenge such tax and seek a refund. No action to contest  
 16 the C-139 agricultural privilege tax may be maintained, and  
 17 such action shall be dismissed, unless all C-139 agricultural  
 18 privilege taxes imposed in years after the action is brought,  
 19 which the taxpayer in good faith admits to be owing, are paid  
 20 before they become delinquent. The requirements of this  
 21 paragraph are jurisdictional.

22 2. In any action involving a challenge of the C-139  
 23 agricultural privilege tax, the court shall assess all costs.  
 24 If the court finds that the amount of tax owed by the taxpayer  
 25 is greater than the amount the taxpayer has in good faith  
 26 admitted and paid, it shall enter judgment against the  
 27 taxpayer for the deficiency and for interest on the deficiency  
 28 at the rate of 12 percent per year from the date the tax  
 29 became delinquent. If it finds that the amount of tax which  
 30 the taxpayer has admitted to be owing is grossly  
 31 disproportionate to the amount of tax found to be due and that

1 the taxpayer's admission was not made in good faith, the court  
 2 shall also assess a penalty at the rate of 25 percent of the  
 3 deficiency per year from the date the tax became delinquent.  
 4 The court may issue injunctions to restrain the sale of  
 5 property for any C-139 agricultural privilege tax which  
 6 appears to be contrary to law or equity.

7 (f) Notwithstanding any contrary provisions in chapter  
 8 120, or any provision of any other law, an action in circuit  
 9 court shall be the exclusive remedy to challenge the  
 10 assessment of an C-139 agricultural privilege tax and owners  
 11 of property subject to the C-139 agricultural privilege tax  
 12 shall have no right or standing to initiate administrative  
 13 proceedings under chapter 120 to challenge the assessment of  
 14 an C-139 agricultural privilege tax including specifically,  
 15 and without limitation, the annual certification by the  
 16 district governing board of the C-139 agricultural privilege  
 17 tax roll to the appropriate tax collector, the denial of an  
 18 application for exclusion from the C-139 agricultural  
 19 privilege tax, and the denial of any application for  
 20 classification as vegetable acreage, deferment of payment for  
 21 vegetable acreage, or correction of any alleged error in the  
 22 C-139 agricultural privilege tax roll.

23 (g) In recognition of the findings set forth in  
 24 subsection (f), the Legislature finds that the assessment and  
 25 use of the C-139 agricultural privilege tax is a matter of  
 26 concern to all areas of Florida and the Legislature intends  
 27 this section to be a general law authorization of the tax  
 28 within the meaning of s. 9, Art. VII of the State  
 29 Constitution.

30 (8)(5) SPECIAL ASSESSMENTS STORMWATER-FUNDING;  
 31 DEDICATED-FUNDS-FOR-STORMWATER-MANAGEMENT.--

1           (a) In addition to any other legally available funding  
 2 mechanism ~~legally available to the district to plan, acquire,~~  
 3 ~~construct, finance, operate, or maintain stormwater management~~  
 4 systems, the district may:

5           ~~(a) -- Create one or more stormwater utilities within or~~  
 6 ~~without the BAA and adopt stormwater utility fees not to~~  
 7 ~~exceed an amount sufficient to plan, acquire, construct,~~  
 8 ~~finance, operate, and maintain stormwater management systems~~  
 9 ~~where such utilities and systems are identified and described~~  
 10 ~~in the plan or permits issued pursuant to subsection (6), -- If~~  
 11 ~~adopted, stormwater utility fees shall be charged to property~~  
 12 ~~owners in the district based on the relative contribution of~~  
 13 ~~each property owner to the need for stormwater management~~  
 14 ~~systems and programs. -- The district may establish stormwater~~  
 15 ~~utility fees adopted pursuant to this paragraph in accordance~~  
 16 ~~with the procedures set forth in s. 20.54, and may enforce~~  
 17 ~~the payment of such fees through actions or proceedings in any~~  
 18 ~~court of competent jurisdiction for unpaid deposits and~~  
 19 ~~charges, or through the imposition of liens upon real property~~  
 for which utility fees are charged and unpaid;

20           ~~(b) -- Establish and set aside, as a continuing source of~~  
 21 ~~revenue, other funds sufficient to plan, acquire, construct,~~  
 22 ~~finance, operate, and maintain stormwater management systems~~  
 23 ~~identified and described in the plan or permits issued~~  
 24 ~~pursuant to subsection (6). -- Such funds may include~~  
 25 ~~contributions from the Everglades Agricultural Area~~  
 26 ~~Environmental Protection District, created pursuant to chapter~~  
 27 ~~89-423, laws of Florida, as amended. -- The district shall apply~~  
 28 ~~any such contributions as a credit against any fee imposed~~  
 29 ~~pursuant to paragraph (a) or assessment levied pursuant to~~  
 30 ~~paragraph (c).~~

1            ~~(e)~~ create, alone or in cooperation with counties,  
 2 municipalities, and special districts pursuant to s. 163.01,  
 3 the Florida Interlocal Cooperation Act of 1969, one or more  
 4 stormwater management system benefit areas including property  
 5 located outside the EAA and the C-139 Basin, and property  
 6 located within the EAA and the C-139 Basin that is not subject  
 7 to the Everglades agricultural privilege tax or the C-139  
 8 agricultural privilege tax within the EAA or any other area of  
 9 the district identified and described in the plan or permits  
 10 issued pursuant to subsection (6). The district may levy  
 11 special assessments upon property owners within said benefit  
 12 areas a per acreage assessment to fund the planning,  
 13 acquisition, construction, financing, operation, maintenance,  
 14 and administration of stormwater management systems for the  
 15 benefited areas. Any benefit area in which property owners  
 16 receive substantially different levels of stormwater  
 17 management system benefits shall include stormwater management  
 18 system benefit subareas within which different per acreage  
 19 assessments shall be levied from subarea to subarea based upon  
 20 a reasonable relationship to benefits received. The  
 21 assessments shall be calculated to generate sufficient funds  
 22 to plan, acquire, construct, finance, operate, and maintain  
 23 the stormwater management systems authorized pursuant to this  
 24 section identified and described in the plan or permits issued  
 25 pursuant to subsection (6).

26            (b) The district may use the non-ad valorem levy,  
 27 collection, and enforcement method as provided in chapter 197  
 28 for assessments levied pursuant to this paragraph (a).

29            (c) The district shall publish notice of the  
 30 certification of the non-ad valorem assessment roll pursuant  
 31 to chapter 197 in a newspaper of general circulation in the

1 counties wherein the assessment is being levied, within 1 week  
 2 after the district certifies the non-ad valorem assessment  
 3 roll to the tax collector pursuant to s. 197.3632(5). The  
 4 assessments so levied pursuant to paragraph (a) shall be final  
 5 and conclusive as to each lot or parcel unless the owner  
 6 thereof shall, within 90 days of certification of the non-ad  
 7 valorem assessment roll pursuant to s. 197.3632(5), commence  
 8 an action in circuit court. Absent such commencement of an  
 9 action within such period of time by an owner of a lot or  
 10 parcel, such owner shall thereafter be estopped to raise any  
 11 question related to the special benefit afforded the property  
 12 or the reasonableness of the amount of the assessment. Except  
 13 with respect to an owner who has commenced such an action, the  
 14 non-ad valorem assessment roll as finally adopted and  
 15 certified by the South Florida Water Management District to  
 16 the tax collector pursuant to s. 197.3632(5) shall be  
 17 competent and sufficient evidence that the assessments were  
 18 duly levied and that all other proceedings adequate to the  
 19 adoption of the non-ad valorem assessment roll were duly held,  
 20 taken, and performed as required by s. 197.3632. If any  
 21 assessment is abated in whole or in part by the court, the  
 22 amount by which the assessment is so reduced may, by  
 23 resolution of the governing board of the district, be payable  
 24 from funds of the district legally available for that purpose,  
 25 or at the discretion of the governing board of the district,  
 26 assessments may be increased in the manner provided in s.  
 27 197.3632.

28 (d) In no event shall the amount of funds collected  
 29 for stormwater management facilities pursuant to paragraph (a)  
 30 ~~or-paragraph-(c)-or-any-combination-thereof~~ exceed the cost of  
 31 providing water management attributable to water quality

1 treatment resulting from the operation of stormwater  
 2 management systems of the landowners to be assessed charged.  
 3 Such water quality treatment may be required by the plan or  
 4 permits issued by the district pursuant-to-subsection-(f).  
 5 Prior to the imposition of fees-or assessments pursuant to  
 6 paragraph (a) or-paragraph-(c) for construction of new  
 7 stormwater management systems or the acquisition of necessary  
 8 land, the district shall establish the general purpose,  
 9 design, and function of the new system sufficient to make a  
 10 fair and reasonable determination of the estimated costs of  
 11 water management attributable to water quality treatment  
 12 resulting from operation of stormwater management systems of  
 13 the landowners to be assessed charged. This determination  
 14 shall establish the proportion of the total anticipated costs  
 15 attributable to the landowners. In determining the costs to  
 16 be imposed by fees-or assessments, the district shall consider  
 17 the extent to which nutrients originate from external sources  
 18 beyond the control of the landowners to be assessed charged.  
 19 Costs for hydroperiod restoration within the Everglades  
 20 Protection Area shall be provided by funds other than those  
 21 derived from the assessments authorized-by-paragraph-(a)-or  
 22 paragraph-(c). The proportion of total anticipated costs  
 23 attributable to the landowners shall be apportioned to  
 24 individual landowners considering the factors specified in  
 25 paragraph (e). Any determination made pursuant to this  
 26 paragraph or paragraph (e) may be included in the plan or  
 27 permits issued by the district pursuant-to-subsection-(f).  
 28 (e) In determining the amount of any fee-or assessment  
 29 imposed on an individual landowner to-be-charged under  
 30 paragraph (a) or-paragraph-(c), the district shall consider  
 31 the quality and quantity of the stormwater discharged by the

1 landowner, the amount of treatment provided to the landowner,  
2 and whether the landowner has provided equivalent treatment or  
3 retention prior to discharge to the district's system.

4 (f) No fee or assessment shall be imposed under this  
5 section paragraph-(a)-or-paragraph-(c) for the operation or  
6 maintenance of a stormwater management system or facility for  
7 which construction has been completed on or before July 1,  
8 1991, except to the extent that the operation or maintenance,  
9 or any modification of such system or facility, is required to  
10 provide water quality treatment.

11 (g) The district shall suspend, terminate, or modify  
12 projects and funding for such projects, as appropriate, if the  
13 projects are not achieving applicable goals specified in the  
14 plan.

15 (h) The Legislature hereby determines that any  
16 property owner who contributes to the need for stormwater  
17 management systems and programs, as determined for each  
18 individual property owner either through the plan or through  
19 permits issued to the district pursuant to subsection-(f) or  
20 to the property owner, is deemed to benefit from such systems  
21 and programs, and such benefits are deemed to be directly  
22 proportional to the relative contribution of the property  
23 owner to such need. The Legislature also determines that the  
24 issuance of a master permit provides benefits, through the  
25 opportunity to achieve collective compliance, for all persons  
26 within the area of the master permit which may be considered  
27 by the district in the imposition of fees or assessments under  
28 this section.

29 (9) PERMITS.--

30 (a) The Legislature finds that construction and  
31 operation of the Everglades Construction Project will benefit

1 the water resources of the district and is consistent with the  
 2 public interest. The district shall construct, maintain, and  
 3 operate the Everglades Construction Project in accordance with  
 4 this section.

5 (b) The Legislature finds that there is an immediate  
 6 need to initiate cleanup and restoration of the Everglades  
 7 Protection Area through the Everglades Construction Project.  
 8 In recognition of this need, the district may begin  
 9 construction of the Everglades Construction Project prior to  
 10 final agency action, or notice of intended agency action, on  
 11 any permit from the department under this section.

12 (c) The department may issue permits to the district  
 13 to construct, operate, and maintain the Everglades  
 14 Construction Project based on the criteria set forth in this  
 15 section. The permits to be issued by the department to the  
 16 district under this section shall be in lieu of other permits  
 17 under part IV of chapter 373 or part VIII of chapter 403  
 18 (1992).

19 (d) By June 1, 1994, the district shall apply to the  
 20 department for a permit or permits for the construction,  
 21 operation, and maintenance of the Everglades Construction  
 22 Project. The district may comply with this paragraph by  
 23 amending its pending Everglades permit application.

24 (e) The department shall issue a permit for a term of  
 25 5 years for the construction, operation, and maintenance of  
 26 the Everglades Construction Project upon the district's  
 27 providing reasonable assurances that:

28 1. The project will be constructed, operated, and  
 29 maintained in accordance with the Everglades Construction  
 30 Project;

31

1           2. The BMP program set forth in paragraph (4)(f) has  
 2 been implemented; and

3           3. The final design of the Everglades Construction  
 4 Project shall minimize wetland impacts, to the maximum extent  
 5 practicable and consistent with the Everglades Construction  
 6 Project.

7           (f) At least 60 days prior to the expiration of any  
 8 permit issued under this section, the district may apply for  
 9 renewal for a period of 5 years.

10           (g) Permits issued under this section may include any  
 11 standard conditions provided by department rule which are  
 12 appropriate and consistent with this section.

13           (h) Discharges shall be allowed, provided the STAs are  
 14 operated in accordance with this section, if, after a  
 15 stabilization period:

16           1. The STAs achieve the design objectives of the  
 17 Everglades Construction Project for phosphorus;

18           2. For water quality parameters other than phosphorus,  
 19 the quality of water discharged from the STAs is of equal or  
 20 better quality than inflows; and

21           3. Discharges from STAs do not pose a serious danger  
 22 to the public health, safety, or welfare.

23           (i) The district may discharge from any STA into  
 24 waters of the state upon issuance of final agency action  
 25 authorizing such action or in accordance with s. 373.439.

26           (j)1. Modifications to the Everglades Construction  
 27 Project shall be submitted to the department for a  
 28 determination as to whether permit modification is necessary.  
 29 The department shall notify the district within 30 days after  
 30 receiving the submittal as to whether permit modification is  
 31 necessary.

1           2. The Legislature recognizes that technological  
 2 advances may occur during the construction of the Everglades  
 3 Construction Project. If superior technology becomes  
 4 available in the future which can be implemented to more  
 5 effectively meet the intent and purposes of this section, the  
 6 district is authorized to pursue that alternative through  
 7 permit modification to the department. The department may  
 8 issue or modify a permit provided that the alternative is  
 9 demonstrated to be superior at achieving the restoration goals  
 10 of the Everglades Construction Project considering:

- 11           a. Levels of load reduction;  
 12           b. Levels of discharge concentration reduction;  
 13           c. Water quantity, distribution, and timing for the  
 14 Everglades Protection Area;  
 15           d. Compliance with water quality standards;  
 16           e. Compatibility of treated water with the balance in  
 17 natural populations of aquatic flora or fauna in the  
 18 Everglades Protection Area;  
 19           f. Cost-effectiveness; and  
 20           g. The schedule for implementation.

21  
 22 Upon issuance of permit modifications by the department, the  
 23 district is authorized to use available funds to finance the  
 24 modification.

25           3. The district shall modify projects of the  
 26 Everglades Construction Project, as appropriate, if the  
 27 projects are not achieving the design objectives.  
 28 Modifications that are inconsistent with the permit shall  
 29 require a permit modification from the department.  
 30 Modifications which substitute the treatment technology must  
 31 meet the requirements of subparagraph 2. Nothing in this

1 section shall prohibit the district from refining or modifying  
 2 the final design of the project based upon the February 14,  
 3 1994, conceptual design document in accordance with standard  
 4 engineering practices.

5 (k) By October 1, 1994, the district shall apply for a  
 6 permit under this section to operate and maintain discharge  
 7 structures within the control of the district which discharge  
 8 into, within, or from the Everglades Protection Area and are  
 9 not included in the Everglades Construction Project. The  
 10 district may comply with this subsection by amending its  
 11 pending permit application regarding these structures. In  
 12 addition to the requirements of ss. 373.413 and 373.416, the  
 13 application shall include the following:

14 1. Schedules and strategies for:

15 a. Achieving and maintaining water quality standards;

16 b. Evaluation of existing programs, permits, and water  
 17 quality data;

18 c. Acquisition of lands and construction and operation  
 19 of water treatment facilities, if appropriate, together with  
 20 development of funding mechanisms; and

21 d. Development of a regulatory program to improve  
 22 water quality, including identification of structures or  
 23 systems requiring permits or modifications of existing  
 24 permits.

25 2. A monitoring program to ensure the accuracy of data  
 26 and measure progress toward achieving compliance with water  
 27 quality standards.

28 (l) The department shall issue one or more permits for  
 29 a term of 5 years for the operation and maintenance of  
 30 structures identified by the district in paragraph (k) upon  
 31 the district's demonstration of reasonable assurance that

1 those elements identified in subparagraph (k) will provide  
 2 compliance with water quality standards to the maximum extent  
 3 practicable and otherwise comply with the provisions of ss.  
 4 373.413 and 373.416. The department shall take agency action  
 5 on the permit application by October 1, 1996. At least 60  
 6 days prior to the expiration of any permit, the district may  
 7 apply for a renewal thereof for a period of 5 years.

8 (m) The district may apply for modification of any  
 9 permit issued pursuant to this subsection, including superior  
 10 technology in accordance with the procedures set forth in this  
 11 subsection.

12 (n) The district also shall apply for a permit or  
 13 modification of an existing permit, as provided in this  
 14 subsection, for any new structure or for any modification of  
 15 an existing structure.

16 ~~(6)--PERMITS--The department and the district shall~~  
 17 ~~develop a permitting program consistent with the plan, if~~  
 18 ~~adopted,--Pursuant to such program~~

19 ~~(a)--The district shall apply to the department by~~  
 20 ~~October 1, 1991, for 5-year interim permits for the~~  
 21 ~~construction, operation, and maintenance of stormwater~~  
 22 ~~management systems for district structures discharging into or~~  
 23 ~~within the Everglades Protection Area--In addition to the~~  
 24 ~~requirements of ss. 373.413 and 373.416, the applications~~  
 25 ~~shall include the following:~~

26 ~~1.--To the extent information is available, recommended~~  
 27 ~~ambient concentration levels and discharge limitations for~~  
 28 ~~phosphorus appropriate to achieve and maintain compliance with~~  
 29 ~~applicable state water quality standards~~

30 ~~2.--Proposed interim concentration levels designed to~~  
 31 ~~achieve such compliance to the maximum extent practicable~~

~~3r--Strategies for achieving and maintaining compliance~~  
~~with such interim concentration levels, including the~~  
~~acquisition of lands and the construction and operation of~~  
~~facilities for the purpose of water treatment, the development~~  
~~of funding mechanisms, and the development of a regulatory~~  
~~program to improve the quality of water entering the~~  
~~stormwater management systems. Such regulatory program shall~~  
~~include the identification of structures or systems requiring~~  
~~permits or modifications of existing permits and the~~  
~~development, where appropriate, of a master permit for a~~  
~~specified area, such as the Everglades Agricultural Area.~~  
~~4r--Appropriate schedules to carry out such strategies.~~  
~~5r--A monitoring program to ensure the accuracy of data~~  
~~and measure progress toward achieving interim concentration~~  
~~levels and applicable water quality standards.~~  
~~(b)--The department shall issue such interim permits to~~  
~~the district upon the district's demonstration of reasonable~~  
~~assurance that such permits will achieve compliance with~~  
~~interim concentration levels to the maximum extent practicable~~  
~~and otherwise comply with the provisions of ssr 373.443 and~~  
~~373.446. The district shall also apply for an interim permit~~  
~~or for the modification of an existing permit, as provided in~~  
~~paragraph (a), for any new structure or for any modification~~  
~~of an existing structure subsequent to October 1, 1991.~~  
~~(c)--Permits issued pursuant to paragraph (b) shall be~~  
~~consistent with the plan, if adopted. Applications for~~  
~~modifications necessary to maintain consistency with the plan~~  
~~shall be filed within 90 days of the adoption of any change to~~  
~~the plan necessitating such modifications.~~  
~~(d)--At least 60 days prior to expiration of any~~  
~~interim permit issued pursuant to paragraph (b), the district~~

1 ~~may apply for a renewal thereof for a period of 5 years for~~  
 2 ~~the purpose of achievement and maintenance of applicable water~~  
 3 ~~quality standards.~~

4 (o)(e) Except as otherwise provided in this section,  
 5 nothing in this subsection shall relieve any person from the  
 6 need to obtain any permit required by the department or the  
 7 district pursuant to any other provision of law.

8 (p)(f) The district shall publish notice of rulemaking  
 9 pursuant to chapter 120 by October 1, 1991, allowing for a  
 10 master permit or permits authorizing discharges from  
 11 landowners within that area served by structures identified as  
 12 S-5A, S-6, S-7, S-8, and S-150. For discharges within this  
 13 area, the district shall not initiate any proceedings to  
 14 require new permits or permit modifications for nutrient  
 15 limitations prior to the adoption of the master permit rule by  
 16 the governing board of the district or prior to April 1, 1992,  
 17 whichever first occurs. The district's rules shall also  
 18 establish conditions or requirements allowing for a single  
 19 master permit for the Everglades Agricultural Area including  
 20 those structures and water releases subject to rule 40E-61,  
 21 Florida Administrative Code. No later than the adoption of  
 22 rules allowing for a single master permit, the department and  
 23 the district shall provide appropriate procedures for  
 24 incorporating into a master permit separate permits issued by  
 25 the department under this chapter. The district's rules  
 26 authorizing master permits for the Everglades Agricultural  
 27 Area shall provide requirements consistent with this section  
 28 ~~the Everglades Surface Water Improvement and Management Plan~~  
 29 and with interim or other permits issued by the department to  
 30 the district. Such a master permit shall not preclude the  
 31 requirement that individual permits be obtained for persons

1 within the master permit area for activities not authorized  
 2 by, or not in compliance with, the master permit. Nothing in  
 3 this subsection shall limit the authority of the department or  
 4 district to enforce existing permit requirements or existing  
 5 rules, to require permits for new structures, or to develop  
 6 rules for master permits for other areas. To the greatest  
 7 extent possible the department shall delegate to the district  
 8 any authority necessary to implement this subsection which is  
 9 not already delegated.

10 ~~(7)--APPLICABILITY OF LAWS AND WATER QUALITY STANDARDS,  
 11 AUTHORITY OF DISTRICT AND DEPARTMENT.--~~

12 ~~(a)--Nothing in this section shall be construed to  
 13 limit, detract from, or compromise the application or  
 14 implementation of the Surface Water Improvement and Management  
 15 Act, ss. 373.451-373.4595.--This section shall be construed,  
 16 in all respects, to enhance and strengthen the provisions of  
 17 the act as applied to the Everglades Protection Area.--As  
 18 provided in ss. 373.451-373.4595, the plan shall include  
 19 recommendations and schedules for bringing all pollution  
 20 sources into compliance with state water quality standards.  
 21 This section does not, nor shall the plan, authorize any  
 22 existing or future violation of any applicable state act, rule,  
 23 or permit requirement, nor diminish the authority of the  
 24 department or the district.~~

25 ~~(b)--Except to the extent authorized in subsection (6),  
 26 nothing in this section shall be construed as altering any  
 27 currently applicable state water quality standards in the  
 28 areas impacted by this section.~~

29 ~~(c)--The provisions of this section shall not be  
 30 construed to limit or restrict the authority granted the  
 31 district and the department pursuant to this chapter or~~

1 ~~chapter 403 to control, regulate, permit, construct, or~~  
 2 ~~operate a stormwater management system, or to plan, design, or~~  
 3 ~~implement a surface water improvement and management plan, and~~  
 4 ~~the provisions of this section shall be deemed to be~~  
 5 ~~supplemental to the authority granted pursuant to this chapter~~  
 6 ~~and chapter 403.~~

7 (10) LONG-TERM COMPLIANCE PERMITS.--By December 31,  
 8 2006, the department and the district shall take such action  
 9 as may be necessary so that water delivered to the Everglades  
 10 Protection Area achieves state water quality standards,  
 11 including the phosphorus criterion, in all parts of the  
 12 Everglades Protection Area.

13 (a) By December 31, 2003, the district shall submit to  
 14 the department a permit modification to incorporate proposed  
 15 changes to the Everglades Construction Project and the permits  
 16 issued pursuant to subsection (9). These changes shall be  
 17 designed to achieve compliance with the phosphorus criterion  
 18 and the other state water quality standards by December 31,  
 19 2006.

20 (b) If the Everglades Construction Project or other  
 21 discharges to the Everglades Protection Area are not in  
 22 compliance with state water quality standards, the permit  
 23 application shall include:

24 1. A plan for achieving compliance with the phosphorus  
 25 criterion in the Everglades Protection Area.

26 2. A plan for achieving compliance in the Everglades  
 27 Protection Area with state water quality standards other than  
 28 the phosphorus criterion.

29 3. Proposed cost estimates for the plans referred to  
 30 in subparagraphs 1. and 2.

31

1           4. Proposed funding mechanisms for the plans referred  
 2 to in subparagraphs 1. and 2.

3           5. Proposed schedules for implementation of the plans  
 4 referred to in subparagraphs 1. and 2.

5           (c) If the Everglades Construction Project or other  
 6 discharges to the Everglades Protection Area are in compliance  
 7 with state water quality standards, including the phosphorus  
 8 criterion, the permit application shall include:

9           1. A plan for maintaining compliance with the  
 10 phosphorus criterion in the Everglades Protection Area.

11           2. A plan for maintaining compliance in the Everglades  
 12 Protection Area with state water quality standards other than  
 13 the phosphorus criterion.

14           (11) APPLICABILITY OF LAWS AND WATER QUALITY  
 15 STANDARDS; AUTHORITY OF DISTRICT AND DEPARTMENT.--

16           (a) Except as otherwise provided in this section,  
 17 nothing in this section shall be construed:

18           1. As altering any applicable state water quality  
 19 standards, laws, or district or department rules in areas  
 20 impacted by this section; or

21           2. To restrict the authority otherwise granted the  
 22 department and the district pursuant to this chapter or  
 23 chapter 403, and provisions of this section shall be deemed  
 24 supplemental to the authority granted pursuant to this chapter  
 25 and chapter 403.

26           (b) Mixing zones, variances, and moderating  
 27 provisions, or relief mechanisms for compliance with water  
 28 quality standards as provided by department rules, shall not  
 29 be permitted for discharges which are subject to paragraph  
 30 (4)(f) and subject to this section, except that site specific  
 31 alternative criteria may be allowed for nonphosphorus

1 parameters if the applicant shows entitlement under applicable  
 2 law. After December 31, 2006, all such relief mechanisms may  
 3 be allowed for nonphosphorus parameters if otherwise provided  
 4 for by applicable law.

5 (c) Those landowners or permittees who are not in  
 6 compliance as provided in paragraph (4)(f) must meet a  
 7 discharge limit for phosphorus of 50 parts per billion (ppb)  
 8 unless and until some other limit has been established by  
 9 department rule or order or operation of paragraph (4)(e).

10 (12) RIGHTS OF SEMINOLE TRIBE OF FLORIDA.--Nothing in  
 11 this section is intended to diminish or alter the governmental  
 12 authority and powers of the Seminole Tribe of Florida, or  
 13 diminish or alter the rights of that tribe, including, but not  
 14 limited to, rights under the Water Rights Compact among the  
 15 Seminole Tribe of Florida, the state, and the South Florida  
 16 Water Management District as enacted by Pub. L. No. 100-228,  
 17 101 Stat. 1556, and chapter 87-292, Laws of Florida, and  
 18 codified in s. 205.165, and rights under any other agreement  
 19 between the Seminole Tribe of Florida and the state or its  
 20 agencies. No land of the Seminole Tribe of Florida shall be  
 21 used for stormwater treatment without the consent of the  
 22 tribe.

23 (13)(b) ANNUAL REPORTS.--Beginning January 1, 1992,  
 24 the district shall submit to the department, the Governor, the  
 25 Speaker of the House of Representatives, the Minority Leader  
 26 of the House of Representatives, the President of the Senate,  
 27 and the Minority Leader of the Senate annual progress reports  
 28 regarding implementation of the section plan. The annual  
 29 report will include a summary of the water conditions in the  
 30 Everglades Protection Area, the status of the impacted areas,  
 31 the status of the construction of the STAs, the implementation

1 of the BMPs, and actions taken to monitor and control exotic  
 2 species. The district must prepare the report in coordination  
 3 with federal and state agencies.

4 (14) EVERGLADES FUND.--The South Florida Water  
 5 Management District is directed to separately account for all  
 6 moneys used for the purpose of funding the Everglades  
 7 Construction Project.

8 (15) DEFINITION OF EVERGLADES AGRICULTURAL AREA.--As  
 9 used in this section, "Everglades Agricultural Area" or "EAA"  
 10 means the following described property: BEGINNING at the  
 11 intersection of the North line of Section 2, Township 41,  
 12 Range 37 East, with the Easterly right of way line of U.S.  
 13 Army Corps of Engineers' Levee D-9, in Palm Beach County,  
 14 Florida; thence, easterly along said North line of said  
 15 Section 2 to the Northeast corner of said Section 2; thence,  
 16 northerly along the West line of Section 36, Township 40  
 17 South, Range 37 East, to the West one-quarter corner of said  
 18 Section 36; thence, easterly along the East-West half section  
 19 line of said Section 36 to the center of said Section 36;  
 20 thence northerly along the North-South half section line of  
 21 said Section 36 to the North one-quarter corner of said  
 22 Section 36, said point being on the line between Palm Beach  
 23 and Martin Counties; thence, easterly along said North line of  
 24 said Section 36 and said line between Palm Beach and Martin  
 25 Counties to the Westerly right of way line of the South  
 26 Florida Water Management District's Levee 8 North Tieback;  
 27 thence, southerly along said Westerly right of way line of  
 28 said Levee 8 North Tieback to the Southerly right of way line  
 29 of South Florida Water Management District's Levee 8 at a  
 30 point near the Northeast corner of Section 12, Township 41  
 31 South, Range 37 East; thence, easterly along said Southerly

1 right of way line of said Levee 8 to a point in Section 7,  
 2 Township 41 South, Range 38 East, where said right of way line  
 3 turns southeasterly; thence, southeasterly along the  
 4 Southwesterly right of way line of said Levee 8 to a point  
 5 near the South line of Section 8, Township 43 South, Range 40  
 6 East, where said right of way line turns southerly; thence,  
 7 southerly along the Westerly right of way line of said Levee 8  
 8 to the Northerly right of way line of State Road 80, in  
 9 Section 32, Township 43 South, Range 40 East; thence, westerly  
 10 along the Northerly right of way line of said State Road 80 to  
 11 the northeasterly extension of the Northwesterly right of way  
 12 line of South Florida Water Management District's Levee 7;  
 13 thence, southwesterly along said northeasterly extension, and  
 14 along the northwesterly right of way line of said Levee 7 to a  
 15 point near the Northwest corner of Section 3, Township 45  
 16 South, Range 39 East, where said right of way turns southerly;  
 17 thence, southerly along the Westerly right of way line of said  
 18 Levee 7 to the Northwesterly right of way line of South  
 19 Florida Water Management District's Levee 6, on the East line  
 20 of Section 4, Township 46 South, Range 39 East; thence,  
 21 southwesterly along the Northwesterly right of way line of  
 22 said Levee 6 to the Northerly right of way line of South  
 23 Florida Water Management District's Levee 5, near the  
 24 Southwest corner of Section 22, Township 47 South, Range 38  
 25 East; thence, westerly along said Northerly right of way lines  
 26 of said Levee 5 and along the Northerly right of way line of  
 27 South Florida Water Management District's Levee 4 to the  
 28 Northeasterly right of way line of South Florida Water  
 29 Management District's Levee 3 and the Northeast corner of  
 30 Section 12, Township 48 South, Range 34 East; thence,  
 31 northwesterly along said Northeasterly right of way line of

1 said Levee 3 to a point near the Southwest corner of Section  
 2 9, Township 47 South, Range 34 East, where said right of way  
 3 line turns northerly; thence, northerly along the Easterly  
 4 right of way lines of said Levee 3 and South Florida Water  
 5 Management District's Levee 2 to the southerly line of Section  
 6 4, Township 46 South, Range 34 East; thence, easterly along  
 7 said southerly line of said Section 4 to the Southeast corner  
 8 of said Section 4; thence, northerly along the East lines of  
 9 said Section 4 and Section 33, Township 45 South, Range 34  
 10 East, to the Northeast corner of said Section 33; thence,  
 11 westerly along the North line of said Section 33 to said  
 12 Easterly right of way line of said Levee 2; thence, northerly  
 13 along said Easterly right of way lines of said Levee 2 and  
 14 South Florida Water Management District's Levee 1, to the  
 15 North line of Section 16, Township 44 South, Range 34 East;  
 16 thence, easterly along the North lines of said Section 16 and  
 17 Section 15, Township 44 South, Range 34 East, to the Northeast  
 18 corner of said Section 15; thence, northerly along the West  
 19 lines of Section 11 and Section 2, Township 44 South, Range 34  
 20 East, and the West lines of Section 35, Section 26 and Section  
 21 23, Township 43 South, Range 34 East to a point 25 feet north  
 22 of the West quarter-corner (W1/4) of said Section 23; thence,  
 23 easterly along a line that is 25 feet north and parallel to  
 24 the East-West half section line of said Section 23 and Section  
 25 24 to a point that is 25 feet north of the center of said  
 26 Section 24; thence, northerly along the North-South half  
 27 section lines of said Section 24 and Section 13, Township 43  
 28 South, Range 34 East, to the intersection with the North right  
 29 of way line of State Road 80A (old U.S. Highway 27); thence,  
 30 westerly along said North right of way line of said State Road  
 31 80A (old U.S. Highway 27) to the intersection with the

1 Southerly right of way line of State Road 80; thence, easterly  
 2 along said Southerly right of way line of said State Road 80  
 3 to the intersection with the North line of Section 19,  
 4 Township 43 South, Range 35 East; thence, easterly along said  
 5 North line of said Section 19 to the intersection with  
 6 Southerly right of way of U.S. Army Corps of Engineers Levee  
 7 D-2; thence, easterly along said Southerly right of way of  
 8 said Levee D-2 to the intersection with the north right of way  
 9 line of State Road 80 (new U.S. Highway 27); thence, easterly  
 10 along said North right of way line of said State Road 80 (new  
 11 U.S. Highway 27) to the East right of way line of South  
 12 Florida Water Management District's Levee 25 (Miami Canal);  
 13 thence, North along said East right of way line of said Levee  
 14 25 to the said south right of way line of said Levee D-2;  
 15 thence, easterly and northeasterly along said Southerly and  
 16 Easterly right of way lines of said Levee D-2 and said Levee  
 17 D-9 to the point of beginning.

18 (16) DEFINITION OF C-139 BASIN.--For purposes of this  
 19 section:

20 (a) "C-139 Basin" or "Basin" means the following  
 21 described property: beginning at the intersection of an  
 22 easterly extension of the south bank of Deer Fence Canal with  
 23 the center line of South Florida Water Management District's  
 24 Levee 3 in Section 33, Township 46 South, Range 34 East,  
 25 Hendry County, Florida; thence, westerly along said easterly  
 26 extension and along the South bank of said Deer Fence Canal to  
 27 where it intersects the center line of State Road 846 in  
 28 Section 33, Township 46 South, Range 32 East; thence,  
 29 departing from said top of bank to the center line of said  
 30 State Road 846, westerly along said center line of said State  
 31 Road 846 to the West line of Section 4, Township 47 South,

1 Range 31 East; thence, northerly along the West line of said  
 2 section 4, and along the west lines of Sections 33 and 28,  
 3 Township 46 South, Range 31 East, to the northwest corner of  
 4 said Section 28; thence, easterly along the North line of said  
 5 Section 28 to the North one-quarter (N1/4) corner of said  
 6 Section 28; thence, northerly along the West line of the  
 7 Southeast one-quarter (SE1/4) of Section 21, Township 46  
 8 South, Range 31 East, to the northwest corner of said  
 9 Southeast one-quarter (SE1/4) of Section 21; thence, easterly  
 10 along the North line of said Southeast one-quarter (SE1/4) of  
 11 Section 21 to the northeast corner of said Southeast one-  
 12 quarter (SE1/4) of Section 21; thence, northerly along the  
 13 East line of said Section 21 and the East line of Section 16,  
 14 Township 46 South, Range 31, East, to the northeast corner  
 15 thereof; thence, westerly along the North line of said Section  
 16 16, to the northwest corner thereof; thence, northerly along  
 17 the West line of Sections 9 and 4, Township 46 South, Range  
 18 31, East, to the northwest corner of said Section 4; thence,  
 19 westerly along the North lines of Section 5 and Section 6,  
 20 Township 46 South, Range 31 East, to the South one-quarter  
 21 (S1/4) corner of Section 31, Township 45 South, Range 31 East;  
 22 thence, northerly to the South one-quarter (S1/4) corner of  
 23 Section 30, Township 45 South, Range 31 East; thence, easterly  
 24 along the South line of said Section 30 and the South lines of  
 25 Sections 29 and 28, Township 45 South, Range 31 East, to the  
 26 Southeast corner of said Section 28; thence, northerly along  
 27 the East line of said Section 28 and the East lines of  
 28 Sections 21 and 16, Township 45 South, Range 31 East, to the  
 29 Northwest corner of the Southwest one-quarter of the Southwest  
 30 one-quarter (SW1/4 of the SW 1/4) of Section 15, Township 45  
 31 South, Range 31 East; thence, northeasterly to the east one-

1 quarter (E1/4) corner of Section 15, Township 45 South, Range  
 2 31 East; thence, northerly along the East line of said Section  
 3 15, and the East line of Section 10, Township 45 South, Range  
 4 31 East, to the center line of a road in the Northeast one-  
 5 quarter (NE1/4) of said Section 10; thence, generally easterly  
 6 and northeasterly along the center line of said road to its  
 7 intersection with the center line of State Road 832; thence,  
 8 easterly along said center line of said State Road 832 to its  
 9 intersection with the center line of State Road 833; thence,  
 10 northerly along said center line of said State Road 833 to the  
 11 north line of Section 9, Township 44 South, Range 32 East;  
 12 thence, easterly along the North line of said Section 9 and  
 13 the north lines of Sections 10, 11 and 12, Township 44 South,  
 14 Range 32 East, to the northeast corner of Section 12, Township  
 15 44 South, Range 32 East; thence, easterly along the North line  
 16 of Section 7, Township 44 South, Range 33 East, to the center  
 17 line of Flaghole Drainage District Levee, as it runs to the  
 18 east near the northwest corner of said Section 7, Township 44  
 19 South, Range 33 East; thence, easterly along said center line  
 20 of the Flaghole Drainage District Levee to where it meets the  
 21 center line of South Florida Water Management District's Levee  
 22 1 at Flag Hole Road; thence, continue easterly along said  
 23 center line of said Levee 1 to where it turns south near the  
 24 Northwest corner of Section 12, Township 44 South, Range 33  
 25 East; thence, Southerly along said center line of said Levee 1  
 26 to where the levee turns east near the Southwest corner of  
 27 said Section 12; thence, easterly along said center line of  
 28 said Levee 1 to where it turns south near the Northeast corner  
 29 of Section 17, Township 44 South, Range 34 East; thence,  
 30 southerly along said center line of said Levee 1 and the  
 31 center line of South Florida Water Management District's Levee

1 2 to the intersection with the north line of Section 33,  
 2 Township 45 South, Range 34 East; thence, easterly along the  
 3 north line of said Section 33 to the northeast corner of said  
 4 Section 33; thence, southerly along the east line of said  
 5 Section 33 to the southeast corner of said Section 33; thence,  
 6 southerly along the east line of Section 4, Township 46 South,  
 7 Range 34 East to the southeast corner of said Section 4;  
 8 thence, westerly along the south line of said Section 4 to the  
 9 intersection with the centerline of South Florida Water  
 10 Management District's Levee 2; thence, southerly along said  
 11 Levee 2 centerline and South Florida Water Management  
 12 District's Levee 3 centerline to the POINT OF BEGINNING.

13 (b) If the district issues permits in accordance with  
 14 all applicable rules allowing water from the "C-139 Annex" to  
 15 flow into the drainage system for the C-139 Basin, the C-139  
 16 Annex shall be added to the C-139 Basin for all tax years  
 17 thereafter, commencing with the next C-139 agricultural  
 18 privilege tax roll certified after issuance of such permits.  
 19 "C-139 Annex" means the following described property: that  
 20 part of the S.E. 1/4 of Section 32, Township 46 South, Range  
 21 34 East and that portion of Sections 5 and 6, Township 47  
 22 South, Range 34 East lying west of the L-3 Canal and South of  
 23 the Deer Fence Canal; all of Sections 7, 17, 18, 19, 20, 28,  
 24 29, 30, 31, 32, 33, and 34, and that portion of Sections 8, 9,  
 25 16, 21, 22, 26, 27, 35, and 36 lying south and west of the L-3  
 26 Canal, in Township 47 South, Range 34 East; and all of  
 27 Sections 2, 3, 4, 5, 6, 8, 9, 10, and 11 and that portion of  
 28 Section 1 lying south and west of the L-3 Canal all in  
 29 Township 48 South, Range 34 East.

30 Section 3. Paragraph (b) of subsection (3) of section  
 31 259.101, Florida Statutes, is amended to read:

1 259.101 Florida Preservation 2000 Act.--

2 (3) LAND ACQUISITION PROGRAMS SUPPLEMENTED.--Less the  
3 costs of issuance, the costs of funding reserve accounts, and  
4 other costs with respect to the bonds, the proceeds of bonds  
5 issued pursuant to this act shall be deposited into the  
6 Florida Preservation 2000 Trust Fund created by s. 375.045.  
7 The proceeds of any bonds deposited into the Preservation 2000  
8 Trust Fund shall be distributed by the Department of  
9 Environmental Protection Natural Resources in the following  
10 manner:

11 (b) Thirty percent to the Department of Environmental  
12 Protection Regulation for the purchase of water management  
13 lands pursuant to s. 373.59, to be distributed among the water  
14 management districts as provided in that section. Funds  
15 received by each district may also be used for acquisition of  
16 lands necessary to implement surface water improvement and  
17 management plans approved in accordance with s. 373.456 or for  
18 acquisition of lands necessary to implement the Everglades  
19 Construction Project authorized by s. 373.4592.

20  
21 Local governments may use federal grants or loans, private  
22 donations, or environmental mitigation funds, including  
23 environmental mitigation funds required pursuant to s.  
24 338.250, for any part or all of any local match required for  
25 the purposes described in this subsection. Bond proceeds  
26 allocated pursuant to paragraph (c) may be used to purchase  
27 lands on the priority lists developed pursuant to s. 259.035.  
28 Title to lands purchased pursuant to paragraphs (a), (d), (e),  
29 (f), and (g) shall be vested in the Board of Trustees of the  
30 Internal Improvement Trust Fund. Title to lands purchased  
31 pursuant to paragraph (c) may be vested in the Board of

1 Trustees of the Internal Improvement Trust Fund. Paragraphs  
 2 (a) and (b) are repealed effective October 1, 2000, and  
 3 paragraphs (c), (d), (e), (f), and (g) are repealed effective  
 4 October 1, 1996. Prior to repeal, the Legislature shall  
 5 review the provisions scheduled for repeal and shall determine  
 6 whether to reenact or modify the provisions or to take no  
 7 action.

8 Section 4. Alligator Alley toll road.--

9 (1) The Legislature finds that the construction of  
 10 Alligator Alley, designated as State Highway #4 and federal  
 11 Interstate Highway 75, has provided a convenient and necessary  
 12 connection of the east and west coasts of Florida for commerce  
 13 and other purposes. However, this state highway has  
 14 contributed to the alteration of water flows in the Everglades  
 15 and affected ecological patterns of the historical southern  
 16 Everglades. The Legislature has determined that it is  
 17 appropriate and in the public interest to establish a system  
 18 of tolls for use of Alligator Alley to produce needed  
 19 financial resources to help restore the natural resource  
 20 values lost by construction of this highway.

21 (2) The Department of Transportation is directed to  
 22 continue the system of tolls on this highway. Notwithstanding  
 23 the provisions of section 338.165(2), Florida Statutes, to the  
 24 contrary, such toll collections shall be used for the purposes  
 25 of this section.

26 (3) Fees generated from tolls shall be deposited in  
 27 the State Transportation Trust Fund, and any amount of funds  
 28 generated annually in excess of that required to reimburse  
 29 outstanding contractual obligations, to operate and maintain  
 30 the highway and toll facilities, including reconstruction and  
 31 restoration, and to pay for those projects that are funded

1 with Alligator Alley toll revenues and that are contained in  
 2 the 1993-1994 adopted work program or the 1994-1995 tentative  
 3 work program submitted to the Legislature on February 22,  
 4 1994, may be transferred to the Everglades Fund of the South  
 5 Florida Water Management District for environmental projects  
 6 to restore the natural values of the Everglades, subject to  
 7 compliance with any applicable federal laws and regulations.  
 8 Projects shall be limited to:

9           (a) Highway redesign to allow for improved sheet flow  
 10 of water across the southern Everglades.

11           (b) Water conveyance projects to enable more water  
 12 resources to reach Florida Bay to replenish marine estuary  
 13 functions.

14           (c) Engineering design plans for waste water treatment  
 15 facilities as recommended in the Water Quality Protection  
 16 Program Document for the Florida Keys National Marine  
 17 Sanctuary.

18           (d) Acquisition of lands to move STA 3/4 out of the  
 19 Toe of the Boot, provided such lands are located within 1 mile  
 of the northern border of STA 3/4.

20           (e) Other Everglades Construction Projects as  
 21 described in the February 15, 1994 conceptual design document.

22           (4) The district may issue revenue bonds or notes  
 23 under section 373.584, Florida Statutes, and pledge the  
 24 revenue from the transfers from the Alligator Alley toll  
 25 revenues as security for such bonds or notes. The proceeds  
 26 from such revenue bonds or notes shall be used for  
 27 environmental projects; at least 50 percent of said proceeds  
 28 must be used for projects that benefit Florida Bay, as  
 29 described in this section subject to resolutions approving  
 30 such activity by the Board of Trustees of the Internal  
 31

1 Improvement Trust Fund and the governing board of the South  
 2 Florida Water Management District and the remaining proceeds  
 3 must be used for restoration activities in the Everglades  
 4 Protection Area.

5 Section 5. Section 338.165, Florida Statutes, is  
 6 amended to read:

7 338.165 Continuation of tolls.--

8 (1) The department, any transportation or expressway  
 9 authority or, in the absence of an authority, a county or  
 10 counties may continue to collect the toll on a revenue-  
 11 producing project after the discharge of any bond indebtedness  
 12 related to such project and may increase such toll. All tolls  
 13 so collected shall first be used to pay the annual cost of the  
 14 operation, maintenance, and improvement of the toll project.

15 (2) If the revenue-producing project is on the State  
 16 Highway System, any remaining toll revenue shall be used for  
 17 the construction, maintenance, or improvement of any road on  
 18 the State Highway System within the county or counties in  
 19 which the revenue-producing project is located.

20 (3) Notwithstanding any other law to the contrary,  
 21 pursuant to Article VII, Section 11 of the Constitution of the  
 22 State of Florida, and subject to the requirements of  
 23 subsection 2 of this section, the Department of Transportation  
 24 may request the Division of Bond Finance to issue bonds  
 25 secured by toll revenues collected on the Alligator Alley to  
 26 fund transportation projects contained in the 1993-1994  
 27 Adopted Work Program or in any subsequent adopted work program  
 28 of the department.

29 (4)†3) If the revenue-producing project is on the  
 30 county road system, any remaining toll revenue shall be used  
 31 for the construction, maintenance, or improvement of any other

1 state or county road within the county or counties in which  
2 the revenue-producing project is located.

3 (5)~~(4)~~ Selection of projects on the State Highway  
4 System for construction, maintenance, or improvement with toll  
5 revenues shall be, with the concurrence of the department,  
6 consistent with the Florida Transportation Plan.

7 (6)~~(5)~~ Notwithstanding the provisions of subsection  
8 (1), in order to facilitate expeditious completion of the  
9 Interstate System, the department is authorized to continue to  
10 collect the toll on a revenue-producing project currently  
11 designated as part of the Interstate System.

12 (7)~~(6)~~ This section does not apply to the turnpike  
13 system as defined under the Florida Turnpike Law.

14 Section 6. Section 373.4593, Florida Statutes, is  
15 created to read:

16 373.4593 Florida Bay Restoration.--

17 (1) The Legislature declares that an emergency exists  
18 regarding Florida Bay due to an environmental crisis  
19 manifested in widespread die off of sea grasses, algae blooms  
20 and resulting decreases in marine life. These conditions  
21 threaten the ecological integrity of Florida Bay and  
22 surrounding areas and the economic viability of Monroe County  
23 and the State of Florida. The Legislature further finds that  
24 an increase in freshwater flow will assist in the restoration  
25 of Florida Bay.

26 (2) The South Florida Water Management District shall  
27 take all actions within its authority to implement an  
28 emergency interim plan. The emergency interim plan shall be  
29 designed to provide for the release of water into Taylor  
30 Slough and Florida Bay by up to 800 cfs, in order to optimize  
31

1 the quantity, <sup>6</sup> distribution and quality of fresh water,  
2 and promote sheet flow into Taylor Slough.

3 (a) By June 1, 1994, the South Florida Water  
4 Management District shall request the federal government to  
5 become a joint sponsor of the emergency interim plan.

6 (b) By June 1, 1994, the South Florida Water  
7 Management District shall request the federal government to  
8 take all action within its authority to expedite or waive any  
9 necessary federal approvals.

10 (c) By July 1, 1994, the South Florida Water  
11 Management District shall file for any necessary federal  
12 approvals.

13 (d) Within 60 days of the issuance of the final  
14 federal approvals, the South Florida Water Management District  
15 shall complete the installation of the necessary facilities  
16 required by the emergency interim plan.

17 (e) The South Florida Water Management District, upon  
18 approval of a majority of the Trustees of the Internal  
19 Improvement Trust Fund, shall file an eminent domain action to  
20 acquire the western 3 sections of the area known as Frog Pond.  
21 The Trustees of the Internal Improvement Trust Fund shall  
22 reach a decision on whether to approve the use of eminent  
23 domain for such purpose not later than January 1, 1955. The  
24 South Florida Water Management District, upon such approval,  
25 is granted the specific powers to exercise eminent domain to  
26 condemn the lands in these areas.

27 (f) Within 30 days of the acquisition of the property  
28 referred to above and the completion of the actions in (d)  
29 above, the South Florida Water Management District shall  
30 implement the emergency interim plan.

31

1  
2 The above measures are emergency interim actions intended to  
3 enhance the quantity, timing, and distribution of freshwater  
4 to Taylor Slough and Florida Bay. These measures will benefit  
5 the water resources of the South Florida Water Management  
6 District and are consistent with the public interest.

7 (3) The district shall not be required to obtain a  
8 permit which may otherwise be required under this chapter or  
9 chapter 403 prior to the construction, installation, and  
10 operation of the pumping facilities and related facilities  
11 required to implement the emergency interim plan. The  
12 district is directed to provide information on the emergency  
13 interim plan to the department. The district shall minimize  
14 environmental impacts which may occur during construction, and  
15 shall submit a construction plan to the department. In the  
16 event that the emergency interim plan continues beyond July 1,  
17 1996, the district shall apply to the department for a permit  
18 to continue to operate these facilities.

19 (4) The Legislature recognizes that the U.S. Army  
20 Corps of Engineers is developing a comprehensive plan for  
21 restoring freshwater flow into Taylor Slough and Florida Bay  
22 over the next several years. The emergency interim plan is  
23 not a substitute for or in conflict with the provisions of the  
24 U.S. Army Corps of Engineers currently under development.  
25 Further, the Legislature directs that the department and the  
26 South Florida Water Management District shall request the  
27 federal government complete and fund the ongoing restoration  
28 efforts so as to increase the quantity, quality, timing, and  
29 distribution of water delivered to the Bay. The department  
30 and the district shall also request the federal government to  
31

1 evaluate the release of freshwater under the demonstration  
2 project, consistent with applicable law.

3 Section 7. The Legislature finds that certain lands  
4 are appropriate for acquisition with funds from the  
5 Conservation and Recreation Lands Trust Fund in order to  
6 restore the historic hydrology of Florida Bay.  
7 Notwithstanding chapter 259, Florida Statutes, sums not to  
8 exceed the total of \$25 million in funds appropriated to the  
9 Department of Environmental Protection from the Conservation  
10 and Recreation Lands Trust Fund shall be allocated, as  
11 necessary, to the South Florida Water Management District, on  
12 a dollar-for-dollar matching basis to be used for the  
13 acquisition of such lands. The funds are intended to  
14 supplement, but not replace, any federal or district funds  
15 that may be available for such purposes. In addition, the  
16 amount to be allocated will be decreased by the amount  
17 provided by any other state sources for the acquisition of  
18 such land.

19 Section 8. The South Florida Water Management District  
20 is authorized to expend funds from Alligator Alley tolls which  
21 have been deposited in the Everglades Fund of the South  
22 Florida Water Management District to fund restoration  
23 activities for the Everglades and Florida Bay.

24 Section 9. Alligator Alley toll road.--

25 (1) The Legislature finds that the construction of  
26 Alligator Alley, designated as State Highway 84 and federal  
27 Interstate Highway 75, has provided a convenient and necessary  
28 connection of the east and west coasts of Florida for commerce  
29 and other purposes. However, this state highway has  
30 contributed to the alteration of water flows in the Everglades  
31 and affected ecological patterns of the historical southern

1 Everglades. The Legislature has determined that it is  
 2 appropriate and in the public interest to establish a system  
 3 of tolls for use of Alligator Alley to produce needed  
 4 financial resources to help restore the natural resource  
 5 values lost by construction of this highway.

6 (2) The Department of Transportation is directed to  
 7 continue the system of tolls on this highway. Notwithstanding  
 8 the provisions of s. 330.165(2), Florida Statutes, to the  
 9 contrary, such toll collections shall be used for the purposes  
 10 of this section and s. 330.165(3).

11 (3) Fees generated from tolls shall be deposited in  
 12 the State Transportation Trust Fund, and any amount of funds  
 13 generated annually in excess of that required to reimburse  
 14 outstanding contractual obligations, to operate and maintain  
 15 the highway and toll facilities, including reconstruction and  
 16 restoration, and to pay for those projects that are funded  
 17 with Alligator Alley toll revenues and that are contained in  
 18 the 1993-1994 adopted work program or the 1994-1995 tentative  
 19 work program submitted to the Legislature on February 22,  
 20 1994, may be transferred to the Everglades Fund of the South  
 21 Florida Water Management District for environmental projects  
 22 to restore the natural values of the Everglades, subject to  
 23 compliance with any applicable federal laws and regulations.  
 24 Projects may include, but are not limited to:

25 (a) Highway redesign to allow for improved sheet flow  
 26 of water across the southern Everglades.

27 (b) Water conveyance projects to enable more water  
 28 resources to reach Florida Bay to replenish marine estuary  
 29 functions.

30 (c) Engineering design plans for waste water treatment  
 31 facilities as recommended in the Water Quality Protection

1 Program Document the Florida Keys National Marine  
 2 Sanctuary.

3 (d) Acquisition of lands to move STA 3/4 out of the  
 4 Toe of the Boot, provided such lands are located within 1 mile  
 5 of the northern border of STA 3/4.

6 (e) Other Everglades Construction Projects as  
 7 described in the February 15, 1994 conceptual design document.

8 (4) The district may issue revenue bonds or notes  
 9 under s. 373.584, and pledge the revenue from the transfers  
 10 from the Alligator Alley toll revenues as security for such  
 11 bonds or notes. The proceeds from such revenue bonds or notes  
 12 shall be used for environmental projects; at least 50 percent  
 13 of said proceeds must be used for projects that benefit  
 14 Florida Bay, as described in this section subject to  
 15 resolutions approving such activity by the Board of Trustees  
 16 of the Internal Improvement Trust Fund and the governing board  
 17 of the South Florida Water Management District and the  
 18 remaining proceeds must be used for restoration activities in  
 19 the Everglades Protection Area.

20 Section 10. The Legislature finds that certain lands  
 21 are appropriate for acquisition with funds from the  
 22 Conservation and Recreation Lands Trust Fund in order to  
 23 restore the historic hydrology of Florida Bay.  
 24 Notwithstanding chapter 259, F.S., sums not to exceed the  
 25 total of \$25 million in funds appropriated to the Department  
 26 of Environmental Protection from the Conservation and  
 27 Recreation Lands Trust Fund shall be allocated, as necessary,  
 28 to the South Florida Water Management District, on a dollar-  
 29 for-dollar matching basis to be used for the acquisition of  
 30 such lands. The funds are intended to supplement, but not  
 31 replace, any federal or district funds that may be available

1 for such purposes. In addition, the amount to be allocated  
 2 will be decreased by the amount provided by any other state  
 3 sources for the acquisition of such land.

4 Section 11. The South Florida Water Management  
 5 District is authorized to expend funds from Alligator Alley  
 6 tolls which have been deposited in the Everglades Fund of the  
 7 South Florida Water Management District to fund restoration  
 8 activities for the Everglades and Florida Bay.

9 Section 12. Subsection (6) of section 298.22, Florida  
 10 Statutes, is amended to read:

11 298.22 Powers given supervisors to effect reclamation  
 12 of land in district.--In order to effect the drainage,  
 13 protection, and reclamation of the land in the district  
 14 subject to tax, the board of supervisors:

15 (6) May condemn or acquire, by purchase or grant, for  
 16 the use of the district, any land or property within or  
 17 without said district not acquired or condemned by the court  
 18 on the report of the commissioners assessing benefits and  
 19 damages, and shall follow the procedure set out in chapter 73.  
 20 Such powers to condemn or acquire any land or property within  
 21 or without the district shall also be available for  
 22 implementing requirements imposed on those district subject  
 23 to s. 373.4592.

24 Section 13. Section 338.165, Florida Statutes, is  
 25 amended to read:

26 338.165 Continuation of tolls.--

27 (1) The department, any transportation or expressway  
 28 authority or, in the absence of an authority, a county or  
 29 counties may continue to collect the toll on a revenue-  
 30 producing project after the discharge of any bond indebtedness  
 31 related to such project and may increase such toll. All tolls

1 so collected shall be used to pay the annual cost of the  
 2 operation, maintenance, and improvement of the toll project.

3 (2) If the revenue-producing project is on the State  
 4 Highway System, any remaining toll revenue shall be used for  
 5 the construction, maintenance, or improvement of any road on  
 6 the State Highway System within the county or counties in  
 7 which the revenue-producing project is located.

8 (3) Notwithstanding any other law to the contrary,  
 9 pursuant to Article VII, Section 11 of the Constitution of the  
 10 State of Florida, and subject to the requirements of  
 11 subsection 2 of this section, the Department of Transportation  
 12 may request the Division of Bond Finance to issue bonds  
 13 secured by toll revenues collected on the Alligator Alley to  
 14 fund transportation projects contained in the 1993-1994  
 15 Adopted Work Program or in any subsequent adopted work program  
 16 of the department.

17 ~~(4)~~(3) If the revenue-producing project is on the  
 18 county road system, any remaining toll revenue shall be used  
 19 for the construction, maintenance, or improvement of any other  
 20 state or county road within the county or counties in which  
 21 the revenue-producing project is located.

22 ~~(5)~~(4) Selection of projects on the State Highway  
 23 System for construction, maintenance, or improvement with toll  
 24 revenues shall be, with the concurrence of the department,  
 25 consistent with the Florida Transportation Plan.

26 ~~(6)~~(5) Notwithstanding the provisions of subsection  
 27 (1), in order to facilitate expeditious completion of the  
 28 Interstate System, the department is authorized to continue to  
 29 collect the toll on a revenue-producing project currently  
 30 designated as part of the Interstate System.  
 31

1           ~~(7)(6)~~ This section does not apply to the turnpike  
2 system as defined under the Florida Turnpike Law.

3           Section 14. Section 1 of chapter 91-80, Laws of  
4 Florida, is hereby repealed.

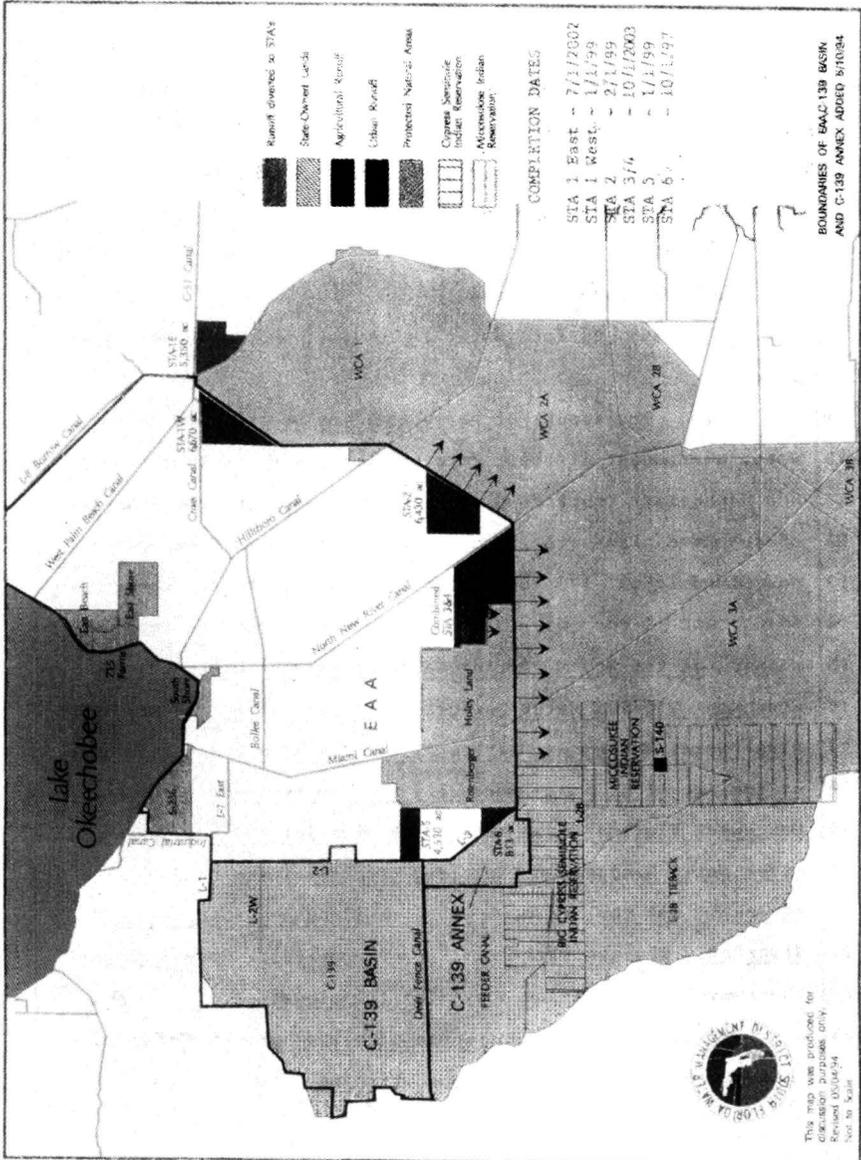
5           Section 15. Subsection (3) of section 373.459, Florida  
6 Statutes, is amended to read:

7           373.459 Surface Water Improvement and Management Trust  
8 Fund.--

9           (3) The amount of money that may be released to a  
10 water management district from the Surface Water Improvement  
11 and Management Trust Fund for approved plans, or continuations  
12 of approved plans, to improve and manage the surface waters  
13 described in ss. 373.451-373.4595 is limited to not more than  
14 60 percent of the amount of money necessary for the approved  
15 plans of the South Florida Water Management District, the  
16 Southwest Florida Water Management District, and the St. Johns  
17 River Water Management District, and not more than 80 percent  
18 of the amount of money necessary for the approved plans of the  
19 Northwest Florida Water Management District and the Suwannee  
20 River Water Management District. The remaining funds  
21 necessary for the approved plans shall be provided by the  
22 district. The district shall provide at least 40 percent of  
23 the amount of money necessary for the plans.

24           Section 16. Except where otherwise provided herein,  
25 this act shall take effect upon becoming a law.

31




  
 This map was produced for the C-139 Basin and Annex.
   
 Revised 03/04/94
   
 Scott S. Kamin

Submitted by M.S. Kimball

Response to Question Posed by Representative Bruce Vento,  
Chairman of the Subcommittee on National Parks, Forests and  
June 23, 1994 Hearing on the Everglades Ecosystem

Baseline Studies Being Implemented or In Place in the Florida Bay

**South Florida Mussel Watch**

Six National Status and Trends (NS&T) Mussel Watch sites are located in South Florida. In order to improve our ability to evaluate the impact of the restoration project in the Everglades on levels of toxic contaminants in Florida Bay, two new Mussel Watch sites were added in 1994. These are located in Flamingo and in Blackwater Sound.

**Ecosystem Health Survey**

In the summer of 1994 the NS&T Program is conducting a survey of the benthic community of Florida Bay and adjacent waters. Samples of macrobenthos are being collected at about 50 sites in Florida Bay and adjacent waters out to a line between Naples and Key West. The numbers of species and of the individuals of each species will be determined to obtain baseline information on the composition and biodiversity of the macrobenthic community of this region. This project is being conducted in cooperation with the Estuarine component of the Environmental Protection Agency's (EPA) Environmental Monitoring and Assessment Program (EMAP-E). The resultant data will be used to calculate a Benthic Index of the health of the benthic community following the procedures already established by the EMAP-E program for estuarine monitoring.

**Bioeffects Survey**

A NS&T Bioeffects Survey of Biscayne Bay will be conducted during the summers of 1994 and 1995 in cooperation with NOAA's Coastal Ocean Program, the National Marine Fisheries Service, the State of Florida, and Dade County. The survey is designed to assess the magnitude and extent of biological effects due to toxic chemical contamination in this area. The survey will include investigations concerning sediment toxicity, impairment of fish reproduction, genetic damage in fish, and indicators of toxic chemical effects in bivalve mollusks.

**Natural and Anthropogenic Events Impacting Florida Bay 1910-1993 Time Line**

Florida Bay is a coastal lagoon, on average less than 3 m deep, approximately 1,000 square miles in area, located between the South Florida mainland and the Florida Keys. In recent years, adverse environmental changes have been noted in the Bay. Currently, a multi-agency multi-year effort is underway to restore the ecosystem of South Florida, including that of Florida Bay. To assist in determining the Bay's former condition and to catalogue changes, events that may have affected or have occurred in the Bay will be described, listed and graphically displayed in a common time scale. The time coverage begins in 1910 with construction activities along

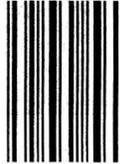
the Florida Keys and in what later became the Everglades National Park. NOAA/NOS/ORCA technical memorandum is being prepared. The anticipated publication date is scheduled for late 1994 or early 1995.



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