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IMPLEMENTING THE COMPREHENSIVE EVERGLADES RESTORATION PLAN [CERP]

HEARING

BEFORE THE

COMMITTEE ON ENVIRONMENT AND PUBLIC WORKS UNITED STATES SENATE

ONE HUNDRED SEVENTH CONGRESS

SECOND SESSION

ON

OVERSIGHT OF THE RESTORATION OF THE EVERGLADES

SEPTEMBER 13, 2002

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ONE HUNDRED SEVENTH CONGRESS
SECOND SESSION

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IMPLEMENTING THE COMPREHENSIVE EVERGLADES RESTORATION PLAN [CERP]

FRIDAY, SEPTEMBER 13, 2002

U.S. SENATE,
COMMITTEE ON ENVIRONMENT AND PUBLIC WORKS,
Washington, DC.

The committee met, pursuant to notice, at 9:30 a.m. in room 406, Senate Dirksen Building, Hon. James M. Jeffords [chairman of the committee] presiding.

Present: Senators Jeffords, Graham, Inhofe, Voinovich and Chafee.

OPENING STATEMENT OF HON. JAMES M. JEFFORDS, U.S. SENATOR FROM THE STATE OF VERMONT

Senator JEFFORDS. The committee will come to order.

I am pleased to be here this morning for the Environment and Public Works Committee's oversight hearing on the implementation of the Comprehensive Everglades Restoration Plan.

I want to thank Senator Graham for requesting this hearing and for his long-standing dedication to this project. I also want to recognize the leadership of Senator Smith on the Everglades restoration. I understand that it was in large part his role as the chairman of the committee in the year 2000 that helped move the Everglades restoration through the Congress.

I am pleased to welcome our colleague Senator Bill Nelson of Florida who will be making a statement before the committee. He is not here yet. I will turn to the esteemed Senator from Oklahoma.

OPENING STATEMENT OF HON. JAMES M. INHOFE, U.S. SENATOR FROM THE STATE OF OKLAHOMA

Senator INHOFE. Thank you, Mr. Chairman. I know that a number of our colleagues worked very hard on this legislation, including our distinguished Ranking Member, Bob Smith. I commend him for working toward the goal of restoring the Everglades.

However, now we know we are wasting money that could have gone toward sensible plans to restore the Everglades into a plan that may never fix a thing.

As many of you know, I was the lone vote against in opposition of the Everglades Restoration Act. I think the vote was 98 to 1, and I was the one. Despite some of the claims made by the environmentalist community, my vote did not mean that I think that the Everglades should not be restored.

Rather, I felt that Congress was not being prudent in writing a check for $14 billion taxpayers' dollars before we knew that the money would actually restore the Everglades.

I ask everyone to go look in the Congressional Record and look at my statements and they can see for themselves. In fact when the legislation was attached to the WRDA bill on the floor of the Senate, I said, and I quote now, Mr. Chairman, "While I recognize the Everglades as a national treasure, S. 2797 sets precedents which I cannot in good conscience condone."

I would like to submit my full floor statement from 2000 for the record at the conclusion of these opening remarks.

Senator JEFFORDS. That will be done.

[The referenced materials follow:]

[From the Congressional Record, September 21, 2000]

Mr. INHOFE. Mr. President, I rise in support of the Warner amendment. In my dissenting view on S. 2797, the "Restoring the Everglades, An American Legacy Act," I outlined my concerns with this legislation. I would like to submit my dissenting view for the RECORD.

While I recognize the Everglades as a national treasure, S. 2797 sets precedents, which I cannot, in good conscience, condone.

I would also like to reiterate my objection to the marriage of the Everglades and WRDA legislation. I know many advocates of this plan argue that the Everglades should be a part of WRDA 2000. However, the Everglades plan is hardly a typical WRDA project. Because of the scale and departure from existing law and policy of the Everglades legislation, it should be considered as a stand alone bill—not a provision in the Water Resources Development Act of 2000. This is a precedent setting bill. With other plans of this nature in the works, the Everglades will be a model for how we handle these enormous ecological restoration projects in the future. We are entering new and, in my opinion, dangerous territory.

No. 1. This legislation violates the committee policy concerning the need for a Chief of the Army Corps of Engineer's report before project authorization. This legislation authorizes 10 projects at a cost of $1.1 billion with no reports of the Chief of Engineers on these projects. Since 1986, it has been the policy of the Committee on Environment and Public Works to require projects to have undergone full and final engineering, economic and environmental review by the Chief of Engineers prior to project approvals by the committee. This process was established to protect taxpayer dollars by ensuring the soundness of all projects. While I understand that, under this legislation, no appropriation can be made until a "Project Implementation Report" is submitted by the Corps, this legislation is still breaking committee policy—it is authorizing projects without a Chief's report.

No. 2. Everglades restoration is based on unproven technology. I have serious concerns about the wisdom of a Federal investment in unproven technologies—particularly a $7.8 billion investment. The project approval process, described above, was established to prevent exactly what is happening with this legislation—a gamble with the American taxpayers' money.

No. 3. The open-ended nature of costs of this project. The total cost of the Comprehensive Everglades Restoration Plan is estimated at $7.8 billion over 38 years. This is the current estimate. I have serious concerns about this potential for cost over runs associated with this project. GAO agrees with me. In a report—released today—GAO stated, "Currently, there are too many uncertainties to estimate the number and costs of the Corps projects that will ultimately be needed . . . . ." As with almost all Federal programs, this project will probably cost much more at the end of the day. For example, in 1967, when the Medicare program was passed by Congress, the program was estimated to cost $3.4 billion. In 2000, the costs of the program are estimated to $232 billion. No one could have foreseen this exponential growth! The future cost of projects of this magnitude must be taken into consideration by Congress before we pass legislation. Once projects like these get major investments, they are funded until the end—no matter what the cost. There should be a cost cap on the entire Everglades project—not just on portions.

No. 4. This legislation sets a new precedent which requires the Federal Government to pay for a major portion of operations and maintenance costs. The Warner amendment will remedy this problem.

Since 1986, water resource projects, including environmental, navigation, flood control, and hurricane restoration are financed partially by the Federal Government and partially by the local and State governments. And all of the costs of operations and maintenance of the projects has been the non-Federal entities—usually State or local governments responsibility. We should not forget that this critical cost-share policy was a key factor in breaking a 16 year stalemate on water resources development authorization legislation.

This Everglades legislation splits the cost of operations and maintenance of the Everglades—½ to the Federal Government and ½ to the State of Florida. The O&M expenditures for these prematurely authorized projects is expected to cost $20 million, and, according the Corp, when the Everglades project is completed, O&M costs are projected to be in excess of $170 million a year.

At the end of fiscal year 2000, there will be a $1.6 billion backlog of Federal O&M costs nationwide of which $329 million is considered "critical" because, if O&M is not performed on these facilities, they will not be able to maintain current performance. In the Tulsa district, which includes Oklahoma, there is a $80 million backlog in O&M. The $170 million needed for O&M of the Everglades—which is almost half of the this year's critical backlog—will drain resources—creating a larger backlog around the rest of the Nation. How can we fund local O&M expenses when we can't fund Federal O&M expenses.

States and localities have enormous backlogs of operations and maintenance costs due to lack of funding. The precedent, which the Everglades legislation sets, could open a Pandora's box—having the Federal Government take on expenses for the operations and maintenance of many projects. There are a number of Oklahoma projects that could use Federal funds for operations and maintenance costs. My hometown of Tulsa pays in excess of $3 million a year in O&M costs.

The Everglades legislation is also unfair because the Corps will be conducting annual inspections on all flood control projects turned over to the local sponsors for 100 percent O&M. Though they try very hard, many localities, which cannot afford O&M costs, will not be able to keep their projects properly maintained. When it comes time for more Federal projects, they will not be favorably looked upon. the Federal Government will say, well, if the local sponsor cannot afford the current cost-share agreement, how could they afford a new one—even if the community desperately needs the new project. How can the Federal Government fund Florida's Everglades O &M bill; while other community's projects are denied because they cannot afford proper O&M and we will not help them? How is this fair?

Again, I recognize the Everglades as a national treasure—as I do many treasures in Oklahoma. As Congress considers the Everglades restoration legislation, all I ask is that Congress play by the rules.

Mr. President, to reiterate, I commend the Senator from Virginia for bringing to our attention what is happening here. I am concerned. This is a major piece of legislation. As I said yesterday in committee, it would be my preference not to have it as part of the water bill but to have it as a stand-alone bill. Because of the size, the magnitude, and nature of it, it should be. It is true what Senator Warner has said about how this violates both the letter and the intent of what we decided in 1986. I remember when it happened. But it is not just in this area. Let me mention briefly three other areas where we are having the same problem.

First of all, this legislation violates the committee policy concerning the need for the Chief of the Army Corps of Engineer's report before project authorization. This was decided back in 1986. To my knowledge—and I had my staff research this—we have not gone forward with any other projects that have not had a recommendation and a report completed by the Chief of the Corps of Engineers.

I can see what is going to happen after this because every time something comes up they are going to say: Wait a minute, you didn't require it then. They are overworked. So why should we require it now?

We have two right now in the State of Oklahoma, in my State, awaiting those reports.

The second thing is the unproven technology. If you go back to 1986, repeated again in 1996, we said we will only use proven technology when these projects are authorized. Admittedly, during the committee meeting they said—in fact even the chairman of the committee said—we know a lot of this technology is not proven.

The third thing is it is open-ended. I want to mention we are talking about $7.8 billion over 38 years. Yesterday, the GAO came out, and after pressing on this, said it could be higher. How much higher? It could be as high as $14 billion. I am old enough to remember—I think there are a couple of us in this Chamber who might remember, too—back in 1967 when we started out on the Medicare program. They said at that time it was going to cost $3.4 billion. I suggest to you this year it is

$232 billion. I do not like these open-ended things. They say we are only talking about the first year. Once you start, you are committed.

The last thing, of course, is what this amendment addresses. I believe very strongly that when we open up the O&M accounts, the operation and maintenance costs will be borne by the Federal Government. It is not just going to be that on future projects that come up we will say we don't have to worry about O&M accounts because 50 percent of it can be provided by the Federal Government; there is now a precedent for it. Not only that, I can see right now coming back on existing projects and saying: Look, we are undergoing that as a State expense. Why should we do that when we are not doing it for this particular project?

I think the amendment is very good, but I think the amendment should be broadened to cover these other violations of both the intent and letter of the 1986 law.

Senator INHOFE. Thank you, sir.

When the Everglades bill was being considered, I stated, and quoting again, "The new precedent requires the Federal Government to pay for a portion of operation and maintenance costs. Though Federal funds are used to construct water development projects, the cost of operations and maintenance of the project has always been non–Federal entities, usually the State or local government's responsibility."

The committee should not forget that this is a critical cost-sharing policy and it was a key factor in breaking the 16-year stalemate on the water resources legislation. I think we all remember that.

The Everglades Restoration Act splits the cost Federal operations and maintenance of the Everglades, one-half the Federal Government and one-half the State of Florida.

Furthermore, because the Federal Government has not paid for operations and maintenance costs, States and localities have enormous backlogs of operation and maintenance costs due to the lack of funding.

I still have three concerns. I cannot stay for the questions today because we have, and I think that is where Senator Warner is right now, a Senate Armed Services Subcommittee obligation.

But I would like to have the Corps submit figures to me, not only on the O&M costs that have been to date, but also what they are projected to be. I would also like to have figures on what this entire project is expected to cost, as near as they could determine it now, because they couldn't determine it 2 years ago.

I also stated 2 years ago, and I am quoting again, "The violation of the Committee on the Environment and Public Works Policy concerning the need for a Chief of the Army Corps of Engineers before project on authorization and the basis of the restoration project on unproven technology."

It is not being pro-environment to throw money out the window. Congress is pouring billions of dollars into a project that is not protecting or restoring the environment. Elaine Hall, head of the External Affairs for the Everglades Project was quoted in the Washington Post article June 23, 2002 as saying, "In 10 years I am afraid they are going to wonder what they bought with their billions."

Well, I couldn't agree more. It was my concern then and it is my concern now. In the same article, Bob Gassaway of Fish and Wildlife Service Biology has stated, and this is a quote, "I do not see a shred of evidence that all this money will help the environment."

I would like to submit the Washington Post series, a four-part series on the Everglades in June of this year for the record right at the conclusion of my remarks.

Senator JEFFORDS. That will be done.

Senator INHOFE. Again, I did not vote against the Everglades legislation because I dislike the Everglades. I love the Everglades. I have been there. I was there as a small child. But I think it is anti-environmental to waste money and our precious resources on unproven plans.

This is money that could have been spent on proven environmental projects.

Finally, I will just make the four points that I stated 2 years ago and then get the response that was in the article 2 years later in the Washington Post.

I said 2 years ago on the floor of the Senate, "This legislation violates well-grounded Federal policy which requires that the U.S. Army Corps of Engineers submit a report carefully reviewing the engineering, the economic, and so forth."

The Washington Post quoted Stewart Applebaum as saying, "We have no idea that this will work."

Second, it is based on unproven technology. I said on September 26 of 2000, "This legislation is based on huge Federal investments in unproven technologies."

Again, 2 years later in the Washington Post, "The plan relies on four highly speculative technological gambles."

Third, it sets a bad precedent. I said 2 years ago, "This legislation breaks the sound tradition in whether operations and maintenance costs for such projects are properly borne by the State and local governments and not by the Federal Government."

Again, that was repeated in the Washington Post.

Last, the open ended costs. "The costs of this project," quoting again from 2 years ago, "is estimated at $7.8 billion over 38 years. But it is open ended."

I remind my colleagues that 35 years ago when Medicare was set in they were estimating the cost to be $3.4 billion a year and now it is approaching $350 billion.

I didn't bring this up to say that I was right and you guys were wrong on this. But it is something that I think we need to learn a lesson from because we are going to be faced with other opportunities to go out and do good jobs at restoration projects and I think we can do it and not violate those four principles that have kept us in proven technology in the past.

Thank you, Mr. Chairman.

Senator JEFFORDS. Thank you.

[The referenced Washington Post articles follow:]

[From the Washington Post, June 23, 2002]

A RESCUE PLAN, BOLD AND UNCERTAIN; SCIENTISTS, FEDERAL OFFICIALS QUESTION PROJECTTS BENEFITS FOR AILING ECOSYSTEM

(Michael Grunwald, Washington Post Staff Writer)

President Bill Clinton and Governor Jeb Bush met in the Oval Office on December 11, 2000, to launch a $7.8 billion effort to revive the Florida Everglades. Vice President Al Gore, the plan's leading White House advocate, stayed home to watch

CNN. That morning, the Supreme Court was hearing final arguments in the Florida vote-count case pitting him against Bush's brother George.

None of the power brokers who did attend the Everglades ceremony mentioned dimpled chads or butterfly ballots, but they were clearly thinking more about Florida's political swamp than its actual one. "What a surreal scene," recalled former Clinton chief of staff John Podesta. "It took a heroic effort to keep the fake smiles plastered on our faces."

It was an oddly muted debut for the widely trumpeted Comprehensive Everglades Restoration Plan. This rescue mission for wading birds, panthers and gators is, after all, the largest environmental project in American history. The plan is already the national model for future restorations, from a $15 billion proposal for Louisiana coastal wetlands to a $20 billion plan for California rivers and deltas. It is becoming the restoration blueprint for the world, studied in south Brazil's Pantanal and sub-Saharan Africa's Okavango Delta. And at a moment when partisanship reigned, the plan was an example of rare political unity in Florida and Washington. "We're here to talk about something that is going to be long-lasting, way past counting votes," Jeb Bush said that day. "This is the restoration of a treasure for our country."

But it's not remotely clear whether the Everglades restoration plan will actually restore the Everglades. Most of the plan's ecological benefits for the Everglades are riddled with uncertainties and delayed for decades, though it delivers swift and sure economic benefits to Florida homeowners, agribusinesses and developers.

A Washington Post investigation, based on more than 200 interviews and thousands of pages of documents and e-mails, found that the plan has been shaped by intense political pressures brought by commercial interests. All Florida and Federal agencies formally support the plan, but many government officials and scientists expressed serious doubts about its viability and impact in on-the-record interviews.

Marketed as the ultimate restoration project, the plan is really a multipurpose plumbing project—committed to expanding water supplies and ensuring flood control for South Florida's exploding population as well as to improving water flows to the Everglades. It will build 18 reservoirs for a State that already leads the Nation in per-capita water consumption, subsidizing more of the development that degraded the River of Grass in the first place.

The plan also relies on four highly speculative technological gambles that account for nearly half its price tag—half State money, half Federal—of $7.8 billion in 1999 dollars. Officials say that cost estimate, already about 4 years of spending on all national parks, will surely rise—as much as tenfold, according to one former restoration leader. Even if all the questionable technologies pan out and all the funding arrives, there will still be numerous roadblocks to restoration.

"We have no idea if this will work," said Stuart 3. Appelbaum of the Army Corps of Engineers. And Appelbaum is in charge of the restoration.

Others expressed even stronger concerns about the restoration and its execution. Richard Harvey, the Environmental Protection Agency's South Florida director, said the plan was looking more and more like "a massive urban and agricultural water-supply project," an unprecedented Federal bailout for a State living beyond its ecological means.

"It's falling apart before my eyes," said Harvey, who is trained as a biologist and an engineer. "We were all singing 'Kumbaya.' Now we're singing 'Can't Get No Satisfaction.' "

Half the Everglades has been paved for development or drained for agriculture. The other half is a shrunken, fragmented, convoluted mess, sucked dry when it needs water and flooded when it doesn't.

The restoration plan's goal is to capture 1 trillion gallons of rainwater that now gets flushed out to sea every year, store it in new reservoirs and newfangled injection wells, then distribute it to farms, people and the Everglades in the right amounts at the right times. "The Everglades is a test," the legendary author and activist Marjory Stoneman Douglas used to say. "If we pass, we may get to keep the planet." The Corps and its State partners in the South Florida Water Management District hope that "getting the water right" will re-create the original mix of flora and fauna, as Douglas had always dreamed.

But while the Federal interest in the restoration plan is primarily environmental, the State interest is more complex. Jeb Bush and his aides—backed by developers, agribusinesses, water utilities and, at times, Indian tribes—have fought consistently and successfully to make sure the plan does not put nature ahead of his constituents.

Even though South Florida's population is growing faster than Haiti's or India's—and enjoying some of the nation's cheapest water—the plan commits to supplying enough water for its population to double again as baby boomers retire to its condos

and golf courses. Florida will have a veto over all 52 of the plan's projects, and one clause stipulates that no aspect of the plan can harm anyone in any way.

Meanwhile, internal documents call some of the plan's environmental promises into doubt. For example, the restoration's leaders pledged to send 80 percent of the project's water to nature rather than to people, but a water budget obtained by The Post falls hundreds of

billions of gallons short. Even Jayantha Obeysekera, the water district's top hydrology modeler, says the 80 percent assurances are based on "gross assumptions that I don't like at all."

The plan's leaders secured environmental support by promising major environmental improvements by 2010, the project's $4 billion mark. But Richard Punnett, chief Everglades hydrologist for the Corps, recently said he expected no significant water flow changes by then. "It could be a lot longer than that," conceded Tommy Strowd, the water district's operations director. Robert Johnson, Everglades National Park's top scientist, said he did not expect the plan to help the park until 2020—if at all. Many scientists fear it could actually damage the turquoise bay and coral reefs of Biscayne National Park.

"We sold it big to get it passed, but the real environmental fixes won't happen for many, many years," acknowledged Corps biologist Stephen Traxler.

The official cost—about 20 years worth of the Federal program to control the former Soviet Union's nuclear weapons—is equally suspect, and it does not include another $7 billion worth of separate Everglades projects. Michael Parker, the Corps' civilian chief until President Bush ousted him in March, predicted in January that Everglades restoration could cost "$60 billion, $80 billion, easy." This is likely to become America's most expensive public works project ever.

Still, the plan does not assure pristine water quality, even though rehyd rating the Everglades with anything less could simply poison it more efficiently. "I mean, duh. That would defeat the whole purpose," said Florida International University microbiologist Ron Jones.

The plan barely addresses the exotic plant species that have invaded 1.5 million acres of the ecosystem: melaleuca that sucks the wet out of wetlands, Old World climbing ferns that spread like viruses. One of the plan's top stated priorities is expanding the "spatial extent" of the Everglades, but its own dirt-moving will destroy 34,000 acres of Everglades wetlands. And it offers only "limited help" for Lake Okeechobee, the diseased heart of the ecosystem, according to Karl Havens, the water district's own Lake Okeechobee scientist.

"I don't see a shred of evidence that all this money will help the environment," said Fish and Wildlife Service biologist Bob Gasaway.

The nightmare scenario for many biologists and conservationists is that South Florida will get its new reservoirs for irrigation and growth, but that a disillusioned Congress will cutoff the money flow before the water flow can reach the Everglades. Congress passed less ambitious Everglades restoration projects in 1989 and 1994, but both have been paralyzed by infighting and litigation, and neither has delivered a drop of water to the Everglades.

"In 10 years, I'm afraid, they're going to wonder what they've bought for their billions," said Elaine Hall, head of external affairs for Everglades National Park.

The plan's leaders acknowledge that it is not perfect. They say they simply can't afford to wait for perfection. Douglas warned that the Everglades was in its "eleventh hour" in her 1947 book "River of Grass," and the clock is still ticking. "Maybe this plan is premature, but I don't want to do a post-mortem on the Everglades," Appelbaum said.

If the Everglades is the ultimate test of man's ability to undo the damage he has inflicted on nature, the restoration is also a test of the Corps, a 227-year-old public works agency that is under unprecedented scrutiny for building wasteful and destructive water projects.

A half-century ago, the Corps built the water-moving system that enabled South Florida to grow and thrive but also ravaged the Everglades. Today, as the Corps prepares to replumb its replumbing, its restoration managers hope to reinvent an agency known for damming, diking and dredging rivers. They're working more closely with environmental agencies. They're hiring more scientists like Traxler, a ponytailed nature-lover who used to train dolphins at Sea World.

"This is not the usual Corps mumbo-jumbo," Appelbaum said. "We've got a real environmental ethic here."

The restoration's leaders have already bought enough land to cover four Manhattans, and hundreds of scientists and engineers are at work on everything from surveys mapping the bumps and dips of the Everglades to equations modeling how sea grasses synthesize nitrogen. But many scientists believe the 4,000-page plan reflects an engineer's bias for fancy engineering, clinging to man's control of nature instead

of removing man-made structures and letting nature heal itself. Many environmentalists are increasingly skeptical that the highly political agencies that nearly killed the Everglades can save it now.

"I'm getting angrier by the day," said Shannon Estenoz, an engineer who is Everglades coordinator for the World Wildlife Fund and co-chair of the Everglades Coalition, the network of environmental groups that led the fight for restoration. "I'm starting to think we were suckers for supporting this."

The Everglades restoration has enjoyed nearly universal political support from its inception. Lobbyists for the sugar industry and the Audubon Society literally walked the halls of Congress arm-in-arm to promote it. It was the centerpiece of Clinton's and Jeb Bush's eco-legacies; President Bush has called it the prime example of his "new environmentalism for the 21st century."

But to understand the gap between the rosy perception and murky reality of Everglades restoration, it helps to understand the Everglades, what mankind has done to it and how consensus politics created this plan to fix it.

"If the Devil ever raised a garden the Everglades was it—the biggest and meanest swamp you're ever likely to see, bigger than some States of the Union," James Carlos Blake wrote in the 1998 novel "Red Grass River." "It's pineywoods and palmetto scrubs and cypress heads and tangled vines but mostly it's a river, a river like none other on earth."

Some people romanticize the Everglades: the ancient wilderness, the exquisite experience, the magnificent beauty. In fact, it's only a bit older than the Pyramids, not so ancient in wilderness time. As experiences go, it's a sweltering slog, full of mosquitoes, snakes, quicksand and sharp-edged sawgrass as well as the snub-nosed alligators and skinny-legged wading birds on the postcards. And while it's beautiful in a subtle way, like a waterlogged wheat field, it's mostly a vast expanse of green and brown marsh with some teardrop-shaped tree islands. To the west, graceful cypress stands do give the feel of a primeval forest, but as a natural spectacle, it's not the Grand Canyon or Mount McKinley.

"To put it crudely, there is nothing in the Everglades that will make Mr. Johnnie Q. Public suck in his breath," Everglades National Park's first leader wrote in 1938.

But the Everglades is unique. That's why the national park, covering 40 percent of the remaining Everglades, was the first established for biology rather than scenery. That's why the United Nations designated it a World Heritage Site and an International Biosphere Reserve.

For a subtropical marsh, the Everglades is unusually flat, unusually wet and unusually low in nutrients. Those characteristics produced its singular biodiversity, from the algae mats at the bottom of its food chain to the storks, herons and other wading birds the 19th-century naturalist John James Audubon observed "in such numbers to actually block out the light of the sun." The park is the only place on Earth where alligators and crocodiles live side by side; President Bush has joked that Congress should study its example.

The original free-flowing Everglades began where Lake Okeechobee spilled over its lower lip during summer downpours, sending a shallow 60-mile-wide sheet of water on a leisurely 100-mile journey through table-flat grasslands. The land declined only a few inches per mile, so this "sheet flow" crept south toward the mangrove fringes of Florida Bay at just a few inches per second, spreading across millions of acres of absorbent prairies. This kept the spongy marsh perpetually wet—during the winter, it dried down just enough to concentrate fish into pools for feeding frenzies by wading birds—while replenishing its underground aquifers.

This liquid garden—really, a river obscured by grass—did not change much for 5,000 years. "In our very midst, we have a tract of land . . . that is as much unknown to the white man as the heart of Africa," the explorer Hugh Willoughby wrote in 1898.

Only the Seminole and Miccosukee Indians lived in the Everglades. They traveled its grassy sloughs in dugout canoes, hunting deer and bobcats for subsistence, sleeping in open-faced chickee huts built on stilts. Americans fought three Seminole wars in the 1800's, but the tribes retreated ever deeper into the bog and were never conquered.

Miccosukee tribal chairman Buffalo Tiger, 82, remembers the Everglades as The Breathmaker created it, teeming with turtles and turkeys, following natural patterns of flood and drought. His people used to be able to feel the rains coming. But as he listened one recent afternoon to the cars roaring past his airboat-tour business off Tamiami Trail—the east-west highway that blocks the old Everglades sheet flow as solidly as any dam—he sighed that Miccosukees must check the radio now like everyone else. The natural patterns had been lost.

"We believe we are part of nature," said Tiger, who recently wrote a book titled "A Life in the Everglades" but lives in Miami now. "The white man always tries to control nature."

The white men who did venture into the Everglades almost all had the same reaction: They wanted to drain the swamp.

Florida gained statehood in 1845, and one of its legislature's first acts was to petition Congress to "survey the Everglades, with a view to their reclamation." This was a long time before Earth Day. Most Floridians saw the Everglades as an impenetrable tract of soggy land on which they couldn't farm or build, and they were determined to civilize it. They believed, as the legendary Governor Napoleon Bonaparte Broward declared, that water was "the common enemy of the people of Florida."

The history of Everglades drainage, however, is a history of spectacular failures and scandals, the stuff of enduring jokes about Florida real estate sold by the quart. In 1881, a Philadelphia industrialist named Hamilton Disston paid $1 million for 4 million acres of the Everglades; he managed to drain only 50,000 acres before committing suicide in his bathtub in 1896. Broward, a boat captain who had smuggled guns for Cuban revolutionaries, stumped for Governor in 1904 on a drain-the-bog platform, unfurling giant maps of his plan to turn a "pestilence-ridden swamp" into an Empire of the Everglades. "It would indeed be a commentary on the intelligence and energy of the State of Florida, to confess that so simple an engineering feat . . . was above their power," Broward taunted his audiences.

Broward's empire spawned a frenzy of real estate schemes, fueled by corrupt surveyors, credulous reporters and huckster salesmen pitching the Promised Land, the Tropical Paradise, the Land of Destiny. "In the Everglades you simply tickle the soil and bounteous crops respond to feed hungry humanity," one newsman gushed. The lure of cheap homesteads and

easy money sparked an Everglades land boom, but the drainage was rarely efficient enough for good farming or dry housing. A series of floods left millions of developed acres underwater and thousands dead, their corpses piled up and incinerated at roadsides.

It turned out that draining the Everglades was indeed above the power of Florida. This was a job for the Army Corps of Engineers. After horrific floods in 1926 and 1928, the Corps began building the Herbert Hoover Dike, the forbidding wall of earth and grass that encircles Lake Okeechobee. After another disaster in 1947, Congress ordered up the flood-control and water-supply project that today includes 1,700 miles of levees and canals, 150 control structures and 16 pump stations—some powered by engines cannibalized from nuclear submarines—to shuttle water around the region. The northern Everglades was drained by canals into 550,000 acres of fertile farmland that now produce one-fourth of America's sugar. The central Everglades was carved with levees into five isolated "water conservation areas" that are still sawgrass plains but are used as glorified sumps and reservoirs.

The project now keeps 6 million residents dry during floods, and helps them water their lawns twice a week during droughts. It supports 37 million annual tourists and snowbirds. "The project reflected the values of its time," said Punnett, the Corps hydrologist.

It also crippled the Everglades.

The signs of decline are all over Florida's southern thumb.

A Chicago-size blob containing 50,000 tons of phosphorous sits at the bottom of Lake Okeechobee. Gin-clear Florida Bay has turned a sickly green. Fish in the St. Lucie estuary have lesions so wide their entrails drag behind them. Muck fires are rampant because the Everglades is too dry. Tree islands wash away because the Everglades is too wet. Sawgrass prairies turn to dense cattail plains because the Everglades is polluted with nutrients.

The arena for the Florida Panthers of the National Hockey League sits so close to the edge of the Everglades that an errant slap shot could almost land in the swamp; the actual Florida panther is at the edge of extinction because runaway sprawl has wiped out its habitat.

The most-repeated Everglades statistic is that 90 percent of its wading birds are gone. Ornithologist John Ogden, the water district's chief Everglades scientist, explains that the unnatural pooling of water in man-made compartments of the Everglades "sends confusing messages to their little pea brains," luring them into areas where they drown, starve or fail to feed their young. Their decline is typical; South Florida is home to 69 endangered plant and animal species, from the Okeechobee gourd to the Everglade snail kite to the Cape Sable seaside sparrow. "The crayfish and otters crashed, too. The entire food base collapsed," Ogden said.

The main problem in the remnant Everglades—an area the size of Delaware plus Rhode Island—is that the water is all wrong.

The natural southerly sheet flow has been blocked and rerouted by levees, highways and canals. The overdrained and overpaved marsh can no longer hold water all year long. Sugar farms and urban areas dump excess water into the natural system in wet seasons and suck needed water out of the natural system in dry seasons. That runoff from farms and cities contains nutrients—exactly what the Everglades can't tolerate. Since Lake Okeechobee can no longer overflow naturally to the south, water managers regularly send huge pulses of lake water east and west during storms to avoid a catastrophic dike collapse, destroying the delicate balance of freshwater and saltwater in the St. Lucie and Caloosahatchee estuaries.

"We know we're creating huge environmental impacts, but there's nothing we can do," said Strowd, who moves water around South Florida from a West Palm Beach control room full of flashing lights and satellite images. "We can't put lives or property in jeopardy."

An internal e-mail exchange obtained by The Post illustrates how economic interests—in this case, the sugar industry, which pollutes the Everglades, blocks its flow and sucks away its water—outmuscle nature when their demands collide.

During the drought of 2000, water district managers decided that Lake Okeechobee was so low that they could not release any more water for irrigation. Tom MacVicar, a former district deputy director who represents sugar growers, warned district supervising engineer Luis Cadavid: "Users will never sit still for zero water-supply releases."

Cadavid replied that he had to be consistent with district guidelines, that any releases "can be seen as a priority switching." MacVicar demanded a meeting, and on the next business day—while Clinton signed the Everglades restoration plan into law and the Supreme Court heard Bush v. Gore—he got one.

The district promptly agreed to switch priorities without a public hearing, giving the industry half its usual releases. "Thanks for all your work and for continuing to improve the process," MacVicar wrote. "We . . . really appreciate your kind words and recognition," Cadavid replied.

In the end, Lake Okeechobee dropped below nine feet for the first time. A third of the lake disappeared until the summer rains, along with most of its bass fishing and boating. The region was battered so badly that Jeb Bush declared an economic state of emergency.

The sugar industry enjoyed its fourth-largest harvest ever.

The historical Everglades can never be restored.

That's because millions of people live and farm in it. Suburbs such as Sweetwater and Kendall and Wellington have sprouted in the swamp, which is why Floridians filed a record 17,000 complaints about nuisance alligators last year. The city of Weston, for example, is bordered by the Everglades on three sides. But its population has increased tenfold in the 1990's, and no plausible plan could convert the properties of former Miami Dolphins star Dan Marino and 53,000 of his neighbors back to wilderness. This dilemma, restoration-plan documents acknowledge, must "preclude any serious consideration of achieving true restoration."

Instead, the plan envisions a new Everglades, an unnatural Everglades that would look and act more like the real thing. The official goal is to "Get the Water Right"—quantity, quality, timing and distribution—for the ecosystem, while also capturing enough water for sugar fields, citrus groves, sprinklers and faucets.

This emphasis on human needs is no coincidence. The plan's blueprint was first floated in 1996 by Governor Lawton Chiles's Commission on a Sustainable South Florida, an assortment of homeowners and home builders, sugar and citrus growers, business and tribal leaders, water managers and environmentalists. Chairman Richard Pettigrew, a former speaker of the Florida House, knew the State legislature would never pass an Everglades plan opposed by developers or agribusinesses. With blandishments and compromises, he engineered a unanimous vote.

"That was the key: Everybody had to be on board," Pettigrew said. "We wanted the wars to end. We had to come up with something for everyone."

The Federal Government is not usually in the local water-supply business, but Federal officials decided to turn the commission's something-for-everyone vision of "sustainable growth" into a plan to reduce human reliance on the Everglades. They figured the more water they could

supply for people, the less water people would have to draw from the Everglades.

The plan's basic idea is to stop squirting so much storm water from summer rains out to tide and start storing it in 180,000 acres worth of reservoirs—the size of more than four District of Columbias—for use in the dry season. The plan also calls for 333 Aquifer Storage and Recovery wells to pump water 1,000 feet underground for use in later years.

With the extra storage space, water managers hope they won't have to use the central Everglades and Lake Okeechobee as holding tanks, and won't have to blow

out the estuaries with mini-tidal waves of fresh water. The goal is to manage the natural system for nature, while capturing new water to serve 6 million additional South Floridians and protecting them all from floods.

Still, the reality of rerouting South Florida's water without offending anyone proved far messier than the commission's tidy outline.

"CERP isn't brain surgery," Appelbaum likes to say. "It's much more complicated."

The most serious technical challenge is the plan's unprecedented reliance on the aquifer wells. Restoration planners had hoped to store more water in big reservoirs, but they were stymied by $40,000-an-acre land prices in the south, the sugar industry's reluctance to sell land in the north and high evaporation rates everywhere.

So they will spend $1.7 billion on wells, more than one-fifth the plan's cost. The wells are supposed to store 20 times as much water as the world's largest aquifer storage site in Las Vegas, and many geologists fear the proliferation of wells could fracture the aquifer's rock formations and contaminate South Florida's drinking water. No one is even sure how much of the stored water will be recoverable.

"Obviously, there are a lot of unknowns, a lot of serious concerns," said William Logan, a groundwater geologist at the National Academy of Sciences.

The plan relies on three other technological risks as well: a $1 billion plan to convert two limestone quarries into reservoirs, a $280 million subterranean "seepage barrier" designed to stop water from escaping the Everglades underground, and an $800 million effort to recycle wastewater into Biscayne Bay that even Appelbaum describes as "problematic." The plan does include $100 million worth of pilot projects to test these technologies, but by the time they're done, billions of dollars will already have been spent.

"Hopefully, they'll work," said MacVicar, the former district official. "If they don't, uh-oh."

U.S. Geological Survey ecologist Ronnie Best calls the restoration a SWAG. That stands for Scientific Wild-Ass Guess. And Best is co-chair of the restoration's science team.

On December 31, 1998, officials at Everglades National Park flagged an even more fundamental problem with the plan: It wouldn't get the water right. They declared in a letter that it "does not represent a restoration scenario for the southern, central and northern Everglades." Environmentalists began threatening to torpedo the plan unless major ecological improvements were assured by 2010.

The Clinton Administration scrambled to insert environmental commitments into the plan's final draft, from a promise of 79 billion more gallons for the park to a pledge that restoration would be the primary goal. In response, Corps officials quietly declared war on their bosses, skipping meetings and ignoring requests for data. "The recalcitrance of Corps headquarters," Clinton aide Michael Davis wrote in a memo, "is unacceptable."

The commitments were made. But they wouldn't last long.

"Let's get it done!"

It was July 1, 1999, and Vice President Gore had just delivered the 10-volume, 23-pound plan to Congress. Robert Smith (R-N.H.), then chairman of the Senate Environment and Public Works Committee, had once quit the GOP because he thought it had strayed too far left. But Senate Bill 2437—and the Everglades—was so popular that Smith led the charge with throwback liberal rhetoric, dismissing the cost as "just a can of Coke per U.S. citizen per year."

"The Everglades became motherhood and apple pie," Smith said. "Everybody wanted to be seen as a supporter of the Everglades."

There was one major sticking point: the late environmental additions.

At a Senate hearing in May 2000, Jeb Bush, a former Miami developer—flanked at the witness table by Florida Sens. Bob Graham (D), whose family runs a prominent South Florida development firm, and Connie Mack (R)—ripped the Clinton Administration for shattering a fragile consensus, for subjecting the State to a "master-servant arrangement."

Florida's legislature had just approved the plan with only one dissenting vote, but Bush hinted it would withdraw its support if Congress insisted on the new language putting restoration first, while only providing flood control and water supply "to the extent practicable."

Senator John W. Warner (R-Va.), irked that the Everglades was in line for 50 times as much money as he had ever wrangled for the Chesapeake Bay, argued that restoration of South Florida's 11 Federal parks and refuges should trump local water demands. But Mack countered that imposing a "number-one objective" could be "disastrous to this effort."

"The foundation of [the plan] was that there would be an equal commitment to the natural system, to flood protection and to water supply," Bush said.

Senators and Clinton aides, all desperate to pass an Everglades bill before the session's end, hashed out a compromise, a series of assurances to be converted into legal documents later. "This was a political plan, and we had to deal with that," said former interior secretary Bruce Babbitt. "Some of the big decisions were pushed down the road."

So the promise of 79 billion gallons to the park was downgraded to a study. The battles over how to allocate the project's water and ensure ecological progress by 2010 were punted to a future Federal-State agreement—now known as the Agreement Between the Bushes—and a crucial set of future regulations that would "ensure the protection of the natural system." While restoration was enshrined as the plan's "overarching purpose," the plan was legally committed to meeting the "water-related needs" of South Florida—practicable or not.

Those needs, however, were rarely mentioned during the Washington lobbying campaign for the plan. Instead, the focus was "America's Everglades," a slogan Graham invented to dispel the notion of a parochial Florida project. Strategists figured lawmakers from drier States might wonder about a multipurpose water project for a subtropical mecca that gets 55 inches of rain per year.

"We were told not to talk about water supply," recalled Fred Rapach, a Palm Beach County water official. "Everyone said: 'Don't worry. You'll get what you need. If you want to get this through, just talk about the environment.' "

The bill breezed through the Senate, 85 to 1.

In the House, the plan's main skeptics were Speaker J. Dennis Hastert (R-Ill.) and then-Rep.

Bud Shuster (R-Pa.). Hastert relented after an Everglades trip with Representative E. Clay Shaw Jr. (R-Fla.), who was in a tight race for reelection at a time when the GOP majority—and Hastert's speakership—was at risk. Shuster, a noted dispenser of pork, agreed to paste S. 2437 into a Corps bill in exchange for a slew of local water projects. His aides called the result the Altoonaglades, after a city in Shuster's district. It passed the House, 394 to 14.

So on that icy December day at the White House, Republicans and Democrats set aside an electoral crisis to celebrate something they had in common.

"In a time when people are focused on politics, and there's a little acrimony—I don't know if y'all noticed—this is a good example of how bipartisanship is still alive," Jeb Bush said.

Everglades restoration, the plan's leaders say, is like the moon mission—a bold leap into the unknown, backed by a fervent commitment to the destination. They hope to start moving dirt in 2004, but they don't pretend to know exactly how to get to their moon.

"We don't know if the moon is made of cheese," Ogden said. And he's the plan's top scientist.

Even if the plan's questionable technologies all work wonders, no one is sure the funding will continue long enough to restore the original hydrology. No one is sure restoring the original hydrology would really bring back the biology. No one is even sure what the original hydrology was, and in floor-flat South Florida, warned Corps project manager Michael Ornella, "uncertainties of even a tenth of a foot can lead to gross miscalculations."

Developers and speculators—and in one case, the Miccosukee tribe—are already buying up land needed for the restoration. Babbitt even fretted about rising seas: "What do we do when the Everglades migrates north?"

Still, Ogden described the plan as a noble effort to save a dying wonderland, unavoidably constrained by Florida politics and the limits of scientific knowledge: "I'm as familiar with the uncertainties as anyone, but I've convinced myself there's a chance this can work."

The plan, after all, is not etched in stone. Congress specifically noted that it did not expect "rigid adherence to the plan," and the plan's leaders emphasize their commitment to "adaptive management," science-speak for flexibility.

"We know there will be rocks and shoals along the way," said John Fumero, the district's general counsel. "People are going to have to trust us to do the right thing."

But many conservation groups argue that trust has failed the Everglades in the past, that the plan's success depends on the strongest possible legal assurances that restoration will come first. The moon launch, after all, was not a multipurpose project. And the behind-the-scenes fights over the plan's assurances, postponed in 2000, are resurfacing now.

On January 9 of this year, Jeb Bush returned to the Oval Office—this time, on better terms with the occupant. Before heading to a $5,000-a-plate fundraiser for Jeb's campaign, the two brothers signed the Agreement Between the Bushes, de-

signed to force Florida to reserve water for the Everglades. "We're going to do this the right way," Jeb Bush said.

But now President Bush's aides are finalizing the regulations required by the plan to ensure "restoration success," and Jeb Bush's aides—backed by almost every Florida interest except environmental ones—are lobbying to keep them as vague as possible.

The initial Corps draft of the regulations was almost devoid of restoration assurances. One section even created water-supply and flood-control assurances. Reps. Joe Skeen (R-N.M.) and Norman D. Dicks (D-Wash.), the chairman and ranking member of the plan's funding subcommittee, wrote that it fell "far short of meeting the congressional intent." The members of the Everglades Coalition—including Audubon, the plan's most reliable environmental cheerleader—threatened to withdraw their support unless the rules are strengthened.

"The great amount of discretion granted the Corps and the State, and the lack of meaningful restoration standards, perpetuates the dominance of political influence over science, which has historically allowed the destruction of the Everglades," the coalition wrote.

President Bush's administration will unveil the rules soon. But the plan's leaders argue that trust and broad discretion will be the keys to averting a repeat of their old mistakes, that strict mandates would just lead to more litigation. The point, they say, is that this is a new era. They stand ready to take the Marjory Stoneman Douglas test, ready to help save the planet. They are willing to learn as they go along.

"We don't have 100 years of experience on this," Appelbaum said. "If people can show us problems, we'll fix them."

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BETWEEN ROCK AND A HARD PLACE; WETLANDS SHRINK BEFORE GROWING DEMANDS OF INDUSTRY, CONSUMERS

(By Michael Grunwald, Washington Post Staff Writer)

WEST MIAMI, FL: The bulldozers come first, tearing up the Everglades and stripping away its soil. Then comes the dynamite, blowing up the limestone that sits beneath the sawgrass. Then a 3 million-pound dragline scoops up the boulders in a bucket strong enough to lift 40 Lincoln Navigators at once. Soon the rock will end up in sidewalks and sewer pipes, highways and driveways.

"That rock is money," said Johnny Arellano, manager of CSR Rinker Co.'s quarry here. "It would be nice if it wasn't under the Everglades, but we go where the rock is."

Half the Everglades has been eliminated. Now the rest is supposed to be resuscitated. But here at the western frontier of Miami sprawl, rock-mining firms are digging up another 21,000 acres of Everglades wetlands. The Army Corps of Engineers, the agency in charge of wetlands protection, has warned that the mining plan "will have an irreversible significant impact on the environmental resources of this region." It will destroy more wetlands in the Everglades than the Corps permitted to be destroyed nationwide last year.

But the Corps is not blocking the plan—or even fighting the plan. The Corps is promoting the plan as a key element of its $7.8 billion Everglades restoration project.

The "Lake Belt" mining plan is the starkest evidence that Everglades restoration is not just about restoring the Everglades. It calls for the Corps to wait until the rock pits are mined out in 35 years or so, then spend $1 billion to convert two of them into huge storage reservoirs: one for drinking water and additional flows to Biscayne National Park and one for Everglades National Park. The premise is that sacrificing Everglades fringes as big as the city of Miami can help save the ecosystem.

But no one is sure the 80-foot-deep pits won't implode, or burst, or contaminate Miami-Dade County's drinking water with deadly bacteria. A study by the South Florida Water Management District suggested the pits would make more water seep out of the Glades—in an area in which the Corps plans to spend hundreds of millions more to prevent that.

Other agencies have blasted the plan's technical uncertainties and ecological risks. Even an internal Corps e-mail called it "a steal" for the miners, noting that "political entities play an enormous role in this particular beast."

For example, Gerardo Fernandez, Governor Jeb Bush's Lake Belt Committee chairman, is a former vice president of Rinker, which has donated $90,000 to the Florida Republican Party since
1996.

"We did the best we could," said Fernandez, who is also a Bush appointee on the water district's board. "We went out of our way to balance all the interests: economic development, property rights and the environment. It wasn't easy."

In many ways, the Lake Belt plan is a microcosm of all that is questionable about America's largest, most complex and least understood environmental project.

It promises clear and quick economic benefits to well-connected Florida interests, but only speculative and faraway ecological benefits that rely on an expensive technological gamble. It was grounded in environmental concepts, but it lost environmental support as details emerged.

And it was justified by a key assumption: that it is unrealistic to expect this state of Disney dreams and Cape Canaveral ambitions to change the land-use patterns that obliterated so much of the Everglades in the first place.

Similar objections have been lodged about the overall Comprehensive Everglades Restoration Plan that President Bill Clinton signed into law December 11, 2000, with wide bipartisan support. But to the Corps and its water district partners, the Lake Belt is a perfect example of the plan's allure, an everybody-wins solution to a difficult situation.

They say the plan will respect the property rights of miners who already own land in the area, while steering their quarries as far from the park and the county's wellfields as possible. It will harvest 1.7 billion tons of limerock that will promote economic growth. It will create rectangular water bodies that won't be true biological "lakes" but will block Miami-Dade's seemingly unblockable westward sprawl. If the new technology works, the Lake Belt will eventually boost local water supplies and help rehydrate the Everglades.

The vision, as one Lake Belt report put it, is "Making a Whole, Not Just Holes."

"This innovative, comprehensive, cutting-edge approach will be a win-win for the environment and the public needs of Southeast Florida," the Corps says on its Web site.

The Corps has even contended the plan will help remove exotic melaleuca trees that have invaded Everglades wetlands—which is true. But it's a bit like promoting mountaintop-removal coal mining to reduce hiking accidents. On a recent Lake Belt tour, biologist George Dairymple said with a smirk that the plan offers everything but the formula for a tastier Hershey bar.

Dairymple is a scientist, a Staten Island native who has spent his career doing academic research in Florida's swamps. But the Lake Belt has turned him into an activist. As he slogged through a sawgrass prairie designated for digging, Dalrymple showed off a flock of snowy egrets, a clump of grayish algae, a zebra butterfly. Then he pointed to the roaring machinery at work nearby—framed by a gray moonscape of 20-foot-high piles of crushed pebbles that might end up paving over more sawgrass prairies someday.

"Does that look like a restoration project?" he asked. He wasn't smirking anymore.

Joe Podgor was a confidant of the late Marjory Stoneman Douglas, the bard of the Everglades; he used to run her grass-roots group, Friends of the Everglades. It was Podgor who ghostwrote her most famous line: "The Everglades is a test. If we pass, we may get to keep the planet." And it was Podgor who dreamed up the Lake Belt.

His story, and the Lake Belt's, helps illustrate how the road to the Everglades restoration plan was paved with good intentions.

Podgor, 56, describes himself as a "fat jerk from Miami Springs." He became an activist in the 1960's because pollution was ruining his favorite fishing canal. Soon he founded a group called Save Our Water to try to protect Miami-Dade's wellfields and underground aquifers.

He helped stop some condo projects, some strip malls, a Blockbuster theme park. But there were many more projects Podgor couldn't stop. He says he got sick of power politics and rubber-stamp regulators and enviros who cared more about birds and bunnies than their own water. Mostly he got sick of losing. It seemed like nothing but the ocean ever blocked development in South Florida.

That's when he had a gloomy epiphany. "It just hit me," Podgor said. "We needed an ocean on the west side of town."

The mining firms, he decided, were too powerful to stop. They donate hundreds of thousands of dollars to State campaigns; the Legislature specifically exempted them from State wetlands laws. Their product also is the fuel for Florida's development-driven economy. South Florida limestone has helped build the State's roads, bridges, homes and parking lots, not to mention Disney World and Cape Canaveral.

Every day, 3,200 trucks and 400 rail cars full of crushed rock leave the Lake Belt, carrying 40 percent of the aggregate used in Florida's concrete.

"Yeah, the miners are influential. That's because we need those holes in the ground," said State Senate Majority Whip J. Alex Villalobos, a Miami Republican whose father has lobbied for Rinker. "What are we going to do, import bricks from a castle in Europe?"

So in 1990, Podgor met with a group of miners at Rinker's corporate offices to present his plan for a Drinking Water Protection Zone, the precursor to the Lake Belt ("Dwpz. Like a faucet—get it?"). The idea was to define where the miners could and couldn't mine.

The miners would get the go-ahead to turn a massive strip of shallow wetlands into deep artificial lakes. But when they finished digging, they would have to give the lakes to the public for recreation. They could not convert unmined areas into lakefront subdivisions. And land around the weilfields would be off-limits, as would the area's westernmost tract of wetlands, known as the Pennsuco after the Pennsylvania Sugar Co. (Senator Bob Graham, the Florida Democrat, and Philip Graham, the late Washington Post publisher, were among the Pennsuco's few human residents when they were young.)

Today, Podgor bristles when activists who were on the sidelines during his earlier battles call him an "industrial sympathizer" for trading away Lake Belt wetlands. He notes that regulators had never shown the slightest interest in protecting those wetlands. The wetlands were on the wrong side of the Everglades levee that usually marks the outer limit of westward

sprawl. They had been invaded by melaleuca, the thirsty Australian tree that was imported to help drain the Everglades. Podgor figured his plan at least would leave the Pennsuco wetlands and his man-made ocean as a buffer between development and the levee.

And even fake lakes can support decent bass fishing.

"What the hell were we supposed to do?" he asked. "If you can't lick 'em, you gotta join 'em."

So the miners took Podgor's idea to Tallahassee, with a dear friend of former Governor Lawton Chiles leading their lobbying effort. The Legislature set up a committee of the stakeholders, and soon had the outlines of a consensus plan. In 1997, the Legislature approved a 50-year mining blueprint, over few objections.

That consensus, said Tom MacVicar, is a key point to remember. MacVicar was once a deputy director of the water district; he helped develop the Everglades hydrology model that is being used in the Everglades restoration plan. Now he is a consultant to the mining industry—as well as the sugar industry and other clients—and he believes it's time for environmentalists to accept the inevitable.

"Look around: This is a growing State, and it needs rock," he said.

But the Lake Belt consensus has unraveled. The caustic Podgor was ousted as director of Friends of the Everglades and replaced on the Lake Belt Committee by a former Drexel Burnham Lambert broker named Barbara Lange.

She didn't pay much attention at first because she was busy fighting a nearby airport proposal. But in 1999, the Corps unveiled its Lake Belt environmental analysis, noting that the plan would eliminate 15,000 acres of "irretrievable" wetlands, in addition to 6,000 that already had been permitted. The analysis predicted "significant negative impacts" to native vegetation, wildlife, water flows and water quality.

Nevertheless, the Corps proposed to issue permits approving 50 years worth of mining. Suddenly Lange was paying attention.

"I was like: What? Are you out of your mind?" said Lange, the Sierra Club's Everglades coordinator. "You read the details, and it's just one outrage after another."

Lange wasn't the only one worried about the Lake Belt, which she insists on calling the Rock Pit Belt. National Park Service officials have described the area as "the last remnant of the short-hydroperiod marshes that are critical to the proper functioning of the Everglades ecosystem." The U.S. Fish and Wildlife Service, Environmental Protection Agency, Miccosukee Tribe and Miami-Dade County aired concerns as well. So did the Everglades Coalition, the voice of local environmental groups—even though some activists fretted in e-mails that alienating the rock miners would be dumb politics.

But the decision was up to the Corps, which oversees wetlands protection under the Clean Water Act, even though it has destroyed more wetlands than any developer.

nationwide, the Corps approves 99 percent of all requests to drain or fill marshes, streams and other wetlands. This mind-set was on display after Sept. 11, when the chief Corps regulator sent out an e-mail to staff nationwide: "The harder we work

to expedite issuance of permits, the more we serve the Nation by moving the economy forward."

In Florida, developers sometimes withdraw applications for damaging projects after Corps

regulators raise objections, but when they don t, the Corps approval rate is well above 99 percent. A recent e-mail from a frustrated Corps regulator here alleged that his bosses no longer even consider blocking projects, because the district commander, Col. James G. May, refuses to sign denials.

"All we do is document the destruction of the aquatic environment," the regulator wrote. "If we have no denial power we have no power and I am wasting my time and your money."

May said he has no blanket policy against denials, but prefers to work with applicants to reduce the impact of their projects. In the Lake Belt, the Corps did scale back its proposed 50-year, 15,000-acre mining permit to a first phase of 10 years and 5,400 acres. But the entire 50-year plan remains in place, and May approved the first-phase permit on April 11.

"This is one of the most complex decisions I've made," May said. "We re taking a balanced approach."

Not everyone thinks so. For example, Corps regulators are supposed to ensure "no net loss" of wetlands, requiring enough "mitigation" to compensate for any destruction. In the Lake Belt, the Corps approved an unusual mitigation deal the mining firms extracted from the State, requiring them to pay 5 cents to an environmental fund for every ton of rock they sell

—less than 1 percent of the usual price. "That's sinfully cheap," Dalrymple said.

May said the fund should help remove melaleuca from 7,200 acres of the Pennsuco marsh in a decade. Still, in an internal e-mail, Corps regulator Charles Schnepel called it "the cheapest mitigation since sliced bread."

"It's like they're in two parallel universes: one for Everglades destruction, one for their supposed Everglades restoration," Lange said.

The critics are equally skeptical that the money will help the Pennsuco. Fish and Wildlife warned in a 2000 letter that "the long-term viability of the Pennsuco wetlands is questionable." The water district's own computer models found the Lake Belt mines would increase seepage from the Pennsuco by up to 34 percent, which would drain the marsh and could attract more melaleuca.

Meanwhile, a separate $730 million component of the restoration plan envisions higher water levels for the Pennsuco, which could drown the marsh. And most Miami-Dade developers are already using the Pennsuco for their mitigation, so the mining money may be redundant.

"It's a blizzard of contradictions," said Richard Grosso, director of the Environmental and Land Use Law Center in Fort Lauderdale. "The American people should be up in arms about this. It's an absolute scandal."

Increasing seepage is a particularly serious contradiction, because one key goal of the restoration plan is to reduce the water seeping out of the Everglades through its porous underground aquifers; the Corps even wants to build an impermeable "seepage barrier" extending far below the levee. The Lake Belt literally undermines those efforts. And with one mine proposed just 1,000 feet from Everglades National Park, park officials have warned that the Lake Belt could "rob" their water and "pose a serious threat to the restoration."

"You re going to have extremely high rates of seepage," said Kevin Cunningham, the U.S. Geological Survey's Lake Belt hydrogeologist. "The only question is how high."

Scientists from EPA and Miami-Dade County have another question: Will the Lake Belt contaminate the wellfields with potentially deadly microbes, such as giardia or cryptosporidium? A crypto outbreak in Milwaukee's water supply killed 100 people in 1993. "That's a very serious concern," said Pedro Hernandez, assistant Miami-Dade County manager.

More than 1 million people drink from those wells, which would be far more susceptible to bacteria once rock removal exposed the groundwater to the air. The county may have to spend $75 million to $250 million to upgrade its treatment facilities. That's why Miami-Dade's water and sewer department drafted a proposal last year for a 15-cent-per-ton mining fee, but it was withdrawn after mining lobbyists met with county leaders.

"The miners clearly know how to play the game," said Mario Diaz-Balart, a GOP State legislator from Miami who hopes to join his brother Lincoln in Congress.

Similarly, when Miami-Dade zoning officials discovered that Rinker had mined an off-limits area, county environmental officials quickly asked them not to "put anything in writing," a memo shows. When a Miami-Dade task force was investigating whether Lake Belt blasting was damaging homes, Diaz-Balart and other legislators

pushed through an amendment insulating the miners from liability. In one internal e-mail, National Park Service mining engineer Phil Cloues complained that the Lake Belt plan was infected with "Chamber of Commerce bias."

"The power and politics that drive these plans have enormous momentum," Cloues wrote. "I would suggest that Everglades National Park has more national and international importance (even economic) than depletable limestone mining. . . . Florida is in a state of cannibalism, eating itself to increase its infrastructure."

John Hall, the top Corps regulator in Florida, does not exactly disagree. He got to Florida in 1979, and he has watched the disappearance of the Everglades with dismay. Hall knows that Corps permits have enabled this growth: "When I fly over Florida, and I see these developments I helped approve, I just say, "Oh my God." But he believes the Corps reflects societal values, and since the 1950's, society has encouraged rock mining in western Miami-Dade. And he doesn't want to get sued for infringing on property rights.

"We could keep this area pristine if we had a dictatorship," Hall said. "Or if Congress decided it was so interested in Everglades restoration it was going to buy this land. But that hasn't happened, so we re making the best of the situation."

The Lake Belt began as a simple mining plan. Now it accounts for one-eighth of the showcase environmental project of the new millennium, a project officially committed to expanding the "spatial extent" of the remaining Everglades. The Corps plans to spend $1 billion—eight times the entire Federal budget for endangered species—to turn two depleted Lake Belt quarries into storage tanks. "They were looking for new places to park water, so they figured, hey, why not?" MacVicar recalled. It was cheaper than buying land.

But only if it works. To understand this engineering challenge, imagine a leaky in-ground swimming pool. Then imagine sinking a concrete wall or rubber barrier around it to contain leaks. Then imagine it were 120,000 times the size of an Olympic pool.

"I'd say the major concern is that we don't know if they'll hold water," said Cunningham, the geological survey's Lake Belt expert. Sydney Bacchus, a hydrologist who studies the effect of Florida's aquifers on wildlife, was less circumspect: "It's a scam! A farce!"

The Corps hopes to save money by leaving the bottoms of the pits unlined, but it's not sure the bottoms won't leak. It hopes to let water fluctuate up to 36 feet inside the reservoirs, but it's not sure their walls won't disintegrate. It hopes this underground activity won't damage the aquifer, but it's not sure about that, either. The Corps is not even sure the reservoir water will be clean enough to deliver to Everglades Park.

"There's a lot we don't know yet," said Richard Punnett, the chief Everglades hydrologist for the Corps. Then he paused. "We do know it's going to be expensive."

The Everglades plan includes a $23 million pilot project to test the quarry-to-reservoir technology. But it won't be finished until 2011 at the earliest. By that time, half the Lake Belt should be mined. MacVicar said his clients don't particularly care whether their pits will work as reservoirs, anyway. "They just want to mine, and they have that right," he said.

Everglades National Park, on the other hand, will have to wait 35 years for its Lake Belt water—assuming the miners do not go out of business or slow down their schedule. The restoration plan will create several other reservoirs in the area much sooner, but only to store water for farms and communities.

The park must pin its hopes on the quarry-to-reservoir scheme, one of four untested technologies at the heart of the plan. The point, says chief park scientist Robert Johnson, is that the much-ballyhooed restoration of the River of Grass is a faraway if, while the little-noticed benefits for miners, farmers and drinkers are tangible whens.

"I hate to be rude, but isn't this supposed to be a restoration plan?" he asked. Today, even Podgor thinks the Lake Belt is a bust.

He wanted public design and ownership of the lakes, along with wide, grassy banks to attract wildlife and security berms to discourage dumping. He didn't get them. He calls the idea of sending quarry water to the Everglades an "idiotic" effort to disguise the giveaway as a boon to the environment. Podgor has left activism; he sells computers for a living now.

"They fouled up the deal of the century," he said. "They gave the miners their cake and let them eat it, too."

In a way, the point of the Everglades restoration plan is to let people have their cake and eat it, too. Corps officials prefer a similar confectionary analogy: "expanding the pie."

Stuart Appelbaum, the agency's top Everglades manager, readily acknowledged that as long as nature must compete with agricultural and urban users for the same water, nature will suffer. "We don't want to fail like that," Appelbaum said. The only way to break the cycle, he said, is to expand the pie, to capture enough excess water to keep everyone happy and rescue the Everglades.

The promise of an expanded pie forged the remarkable coalition that pushed the restoration plan through Tallahassee and Washington—a promise that united developers, sugar barons, citrus growers, water utilities, Indian tribes and rock miners with a host of environmental groups. Now the restoration's leaders say the strange bedfellows who came together in 2000 must stay together to help them keep the promise. And EPA and Fish and Wildlife recently backed off longstanding threats to fight the mining permits.

"The key to everything is preserving the coalition," said Michael Parker, who was the civilian head of the Corps until President Bush ousted him in March for complaining about budget cuts. "If we get stuck in litigation, Everglades restoration is doomed."

If Parker is right, restoration is in trouble; environmentalists can't wait to litigate the Lake Belt.

Bradford Sewell, a senior attorney at the Natural Resources Defense Council, believes the plan violates a slew of environmental laws. For example, the Corps concluded there was no Endangered Species Act problem because an industry consultant reported no wood storks in the area. But a recent water district study found 1,400 of the park's 1,600 storks nesting five miles from the Lake Belt edge. On many issues, the Corps proposed future studies, but the miners can start digging now.

"Common sense and the law requires—at a bare minimum—a lot more study," Sewell said. "Otherwise, we re going to be horrified when we look back in 10 years."

The Corps is trying to shed its reputation as an enemy of nature, and the Everglades is its Exhibit A. Hall said he "can really empathize with the environmentalists on the Lake Belt." But Hall also empathized with the miners, who have invested in draglines and railroads and mills with the expectation that they would be allowed to keep mining. "They've spent hundreds of millions of dollars, and they deserve to be heard," he said.

For decades, development has been the norm in South Florida. Just last month, Jeb Bush's former business partner persuaded the county to extend its urban boundary to approve a massive warehouse in the Lake Belt area. It is unfair, Hall said, to expect the Corps to overturn those norms overnight; it is not a purely environmental agency, and it cannot focus exclusively on Everglades restoration. The Corps, he said, must strike a balance.

"I'm not trying to put a smiley face on this," he said. "But I m not the king or the land-use czar. We might not like what's happening here, but this is how it is."

[From the Washington Post, June 24, 2002]

WATER QUALITY IS LONG-STANDING ISSUE FOR TRIBE

(By Michael Grunwald, Washington Post Staff Writer)

MICCOSUKEE INDIAN RESERVATION, FL: Richard Harvey sits through the "task force" meetings, the "working group" meetings, the "science subgroup" meetings, all kinds of Everglades restoration meetings. He listens, he seethes and then he blurts out his mantra: T What is it about water quality you don't understand?"

The goal of the $7.8 billion Comprehensive Everglades Restoration Plan is to "get the water right"—quantity, quality, timing and distribution. But the plan focuses almost entirely on hydropatterns—just quantity, timing and distribution. Critics such as Harvey, the Environmental Protection Agency's South Florida director, as well as environmentalists, Federal investigators and Miccosukee Indians, all warn that if the restoration plan's leaders ignore the need for pristine water quality, they will just create a more efficient pollution-delivery system for the Everglades. And they will end up in court.

Of the plan's many pitfalls, this may be the most daunting. One defining characteristic of the original Everglades was its low nutrient content—even lower than Evian—and no one has figured out how to get it that way again. "If you don't fix the water quality, it's a waste of time and money," said Terry Rice, a former Army Corps of Engineers colonel who works for the Miccosukee tribe.

Harvey was even harsher in an internal e-mail: "Getting the water quality right is critical to the restoration of the ecosystem and yet the two lead agencies—the

Corps and the [South Florida] Water Management District—don't seem to have a clue about how to do it—and therefore choose to virtually ignore it/hope it will go away—unless they are sued."

In fact, litigation has dominated the recent history of Everglades water quality—most of it involving the irrepressible Dexter Lehtinen, a former Army lieutenant who lost a chunk of his face to shrapnel in the 1971 invasion of Laos. Lehtinen, the husband of Cuban American firebrand Representative Ileana Ros-Lehtinen (R-Fla.), is not the type to back down from a fight.

In 1988, when Lehtinen was the Republican U.S. attorney in Miami—he had just indicted Panamanian strongman Manuel Noriega—an Everglades National Park official told him phosphorous pollution from the sugar fields below Lake Okeechobee was killing the River of Grass. Lehtinen, a Homestead native who had fished in the Everglades as a boy, doubted the Reagan Administration would support a landmark environmental lawsuit against Florida and the politically influential sugar industry. So he waited until the October campaign season, when then-Vice President George H.W. Bush was blasting Massachusetts Governor Michael S. Dukakis over the dismal health of Boston Harbor. Lehtinen then sued without telling his bosses in the Justice Department.

"What were they going to do, tell me to take it back?" he said.

His key witness was Ron Jones, a proudly nerdy Florida International University microbiologist who studies periphyton, the ubiquitous globs of one-celled algae at the bottom of the Everglades food chain. Periphyton consists mostly of mucus; it's not charismatic megafauna. But Jones's research has documented that the Everglades is "oligotrophic," that even minuscule traces of phosphorous—anything over 10 parts per billion (ppb)—begin to transform the ecosystem.

The most obvious change is that wide swaths of sawgrass—a plant that usually flourishes here because it needs so little phosphorous to grow—turn into dense plains of cattails that Jones calls "the markers on the grave of the Everglades." Phosphorous also eliminates periphyton, which hurts the fish and snails that eat it, and the birds that eat them, and so on.

Anyway, Lehtinen won. In 1991, Lawton Chiles, who was then Governor, dramatically announced in court that he wanted to "surrender my sword" and settle the landmark case. Now the State is building 45,000 acres of artificial marshes that filter pollution out of runoff from sugar fields, suburbs and Lake Okeechobee before it flows into the Everglades. The $800 million effort—one-third paid by the sugar industry—has already reduced phosphorous levels in some cases from more than 100 ppb to less than 30 ppb.

But less than 30 is not 10. In December, Governor Jeb Bush's administration endorsed 10 ppb as the appropriate limit, but no one has floated—much less funded—a plan to achieve it. And the water district's latest report notes that phosphorous inflows increased last year.

It also says that "while tremendous progress is being made, significant uncertainties remain that may prevent the District from complying" by its legal deadline of 2006. Bush's top environmental official, David Struhs, told the Palm Beach Post that "there are going to be extreme problems in some cases in meeting those permit conditions," and declined to speculate when the cleanup might be done: "It depends on how long you live, I guess."

But Jones says reducing pollution to levels above 10 ppb would not save the Everglades; it would just poison the Everglades more slowly. If the restoration plan rehydrates the Everglades with less-than-pristine water, that could poison the Everglades more quickly. "Until you get to 10, you re making it worse," Jones said.

In recent years, the Justice Department has been content with the State's progress. But not the 492 members of the Miccosukee tribe, who live here in the central Everglades and have used casino proceeds to become the most aggressive enforcers of Everglades water purity. Their lawyer is one Dexter Lehtinen, and their consultant is Ron Jones. Rice and his wife, Joette Lorion—a former president of Friends of the Everglades, the environmental group founded by the late Marjory Stoneman Douglas—work for the tribe, too.

"The Everglades has become a cesspool," says Billy Cypress, the Miccosukee tribal chairman. "We won't rest until it's clean."

Struhs, secretary of the Florida Department of Environmental Protection, says the State is doing all it can. Phase One of its marsh construction project far exceeded expectations, and Struhs says the 10 ppb standard is nonnegotiable. "No backsliding," he said.

The Miccosukees are skeptical. They want to see how the State will measure phosphorous, and what it plans to do about Phase Two. Lehtinen just persuaded a Federal judge to hold hearings. "I am convinced FDEP will do all within its power to find a compliance system which ensures minimum risk for the State . . . such

is typical of human nature, but means relaxed protection for the Everglades," Rice wrote.

The restoration plan calls for 36,000 more acres of artificial marshes, but it does not claim to fix the water-quality problem; it simply assumes Florida will do so. An investigation by the General Accounting Office warned that the plan may require many more water-quality projects to succeed. For example, it aims to stop only about one-fourth the phosphorous entering Lake Okeechobee from cattle pastures and Orlando sprawl. The GAO warned that the lake alone could require another $1 billion worth of water-quality work.

Lehtinen and the Miccosukees won another legal victory in February that could have even deeper implications. The U.S. Court of Appeals ruled that the water district had violated the Clean Water Act by pumping polluted stormwater from Weston into the Everglades. It wasn't huge news, because the tribe didn't ask the judges to shut down the pump. But the district plans to appeal to the Supreme Court. That's because the decision could set a major precedent if new structures sending water to the Everglades—such as many of the restoration plan's 83 new pumps—are required to meet the 10 ppb standard.

"I don't think the taxpayers are going to like it if we build a bunch of pumps we can't even turn on," Harvey said. "They d be perfect monuments to stupidity."

[From the Washington Post, June 26, 2004]

AN ENVIRONMENTAL REVERSAL OF FORTUNE; THE KISSIMMEE'S REVIVAL COULD PROVIDE LESSONS FOR RESTORING THE EVERGLADES

(By Michael Grunwald, Washington Post Staff Writer)

LORIDA, FL: The Kissimmee River used to run wild, rambling from Orlando down to Lake Okeechobee, zigzagging across its floodplain like a drunken unicyclist. Then the Army Corps of Engineers tamed it, slicing off its hairpin turns, locking it into a straight and reliable channel that never overflowed its banks.

It wasn't really a river anymore. It was renamed the C–38 Canal.

Now the Corps and its partners in the South Florida Water Management District are setting some of the Kissimmee free again. In June 2000, Lou Toth, the water district's top Kissimmee biologist, stomped on a detonator and blew up one of the dams holding the C–38 in place. Today, the seven-mile stretch of canal that Toth turned loose is a 14-mile stretch of river, twisting and turning and doubling back again, re-creating wetlands and rejuvenating wildlife. This $518 million project is the most ambitious river restoration ever attempted. It has been visited by Japanese, British, Brazilian, Italian and Hungarian officials hoping to fix their own rivers. And Corps and water district leaders call it a model for their $7.8 billion Comprehensive Everglades Restoration Plan a few miles south. If the Everglades is the test of how ecological mistakes can be fixed, they say, the Kissimmee is proof that success is possible.

"The lesson of the Kissimmee is that restoration works," said Stuart Appelbaum, who is managing Everglades restoration for the Corps. "It's the laboratory for a lot of what we redoing in the Everglades."

But many scientists warn that the Everglades project's leaders have ignored the lessons of the Kissimmee's success—that America's largest effort to restore an entire ecosystem may give ecosystem restoration a bad name. And one of those scientists is Lou Toth, who was named the water district's 2001 employee of the year for his leadership on the Kissimmee.

He believes Everglades restoration is on a path to failure—because it's led by engineers instead of scientists, it's a multipurpose water project instead of a clear restoration project and it tightens human control of nature instead of letting nature heal itself.

"They just don't get it," says Toth, who has worked on the Kissimmee since 1984. "I hate to say it, but these guys haven't learned anything about restoring an ecosystem."

In their 1950's film "Waters of Destiny," Corps officials boasted in stentorian tones about taming "water that once ran wild." Today's Corps officials laugh off "Waters of Destiny" as kitsch; after presiding over the deterioration of the Everglades for decades, they say they are ready to engineer its recovery. The question is whether they can replicate their Kissimmee achievements without reprising their Kissimmee methods.

There is no doubt that restoring the River of Grass amid subdivisions and strip malls will be harder than restoring a normal river amid cattle pastures. Leaders

of the Everglades restoration say they can't just get rid of man-made barriers to flow and let nature run its course—not when the barriers include such cities as Weston and Wellington and the entire Florida sugar industry.

"The Kissimmee restoration is like: Oops, we dropped something, let's pick it up. It's immediate," said Tommy Strowd, the water district's operations director. "But the Everglades is different. We can't just go back to nature."

No one is asking the restoration's leaders to evacuate the developed half of the historic Everglades. But many scientists believe the remaining half can be far more natural than it is, that a more natural restoration would provide faster, cheaper and more certain ecological results than the current plan. The Everglades restoration plan is flexible, but it is scheduled to start moving dirt in 2004; now is when it would be easiest to fix.

"This is an unbelievably expensive restoration plan. There ought to be restoration in it," said Columbia University ecologist Stuart Pimm, who studies Everglades sparrows.

For now, the plan's benefits to the Everglades remain backloaded and uncertain, while its water-supply benefits to people and farms are relatively swift and sure. Senator Bob Graham (D-Fla.), a key Everglades advocate who is also the Kissimmee's political godfather, compares the Everglades plan to open-heart surgery. He's afraid that if the ecosystem is hemorrhaging on the operating table after 10 years and $4 billion, Congress will try to pull the plug.

"You look at the Kissimmee, and you see it can be done," he said. "Now we have to do it."

In 1886, a Harper's writer discovered "the wild beauty of the Kissimmee River," describing "grasses and vines as graceful as Nature's hand could fling abroad." On the restored stretch of the Kissimmee, newly released from its man-made straitjacket, the wild beauty is back.

The river's long-buried sandbars are re-emerging. Scores of gators sun themselves on its banks. The wax myrtles that invaded its drained floodplain are dying now that the wetlands are wet again. On a recent airboat tour, Toth—who looks like a sunburned and long-haired version of the TV action hero Nash Bridges—showed off a shallow broadleaf marsh that has reappeared alongside the river, a green tangle of willow shrubs and knee-high plants.

"Two years ago," he said, "this was a dry cattle pasture."

If the floodplain is this transformed already, he was asked, what will it look like in a decade? "Like this!" Toth laughed. "It's natural again. All we had to do was get out of its way."

The Corps has channelized rivers nationwide, often with devastating environmental results. But its conquest of the Kissimmee stands out as a marvel of engineering brilliance and ecological folly, described by the late Everglades author Marjory Stoneman Douglas as "among the most radical alterations of a river in human history." At the request of the State of Florida, the Corps wrestled a meandering and unpredictable 103-mile river into a 56-mile ditch that never overflowed its banks. The $35 million project was designed to whisk floodwaters away from Orlando, Disney World and the upper Kissimmee basin, and it succeeded.

But the project destroyed the basin's biology; it dried up 35,000 acres of its wetlands, chased away 92 percent of its waterfowl and 74 percent of its bald eagles and ruined its sport fishing. The project also conveyed tons of filthy cattle runoff into Lake Okeechobee.

Immediately after the project's completion, in 1971, activists such as Art Marshall, a crusading biologist, and Douglas, the grande dame of the ecosystem, began agitating to undo it. The first meeting of the Everglades Coalition—now the official network of South Florida environmentalism—was held along the Kissimmee; restoring the river was the coalition's top priority for years.

"People said: 'Oh, my God. What have we done?' " recalled Graham, who was a young State legislator at the time. In 1976, he helped get the State to study a possible restoration project. But the Corps, a Federal waterworks agency that had never worked on restoration, concluded in 1985 that the State's plan, "while generally beneficial for environmental concerns, would not contribute to the nation's economic development."

So Graham, who had served as Florida's Governor and then moved on to the Senate, rammed through language authorizing the Corps to take on environmental projects, which are now one-fifth of its total workload. In 1992, Congress approved the State's plan to backfill 22 miles of the C–38 and demolish two of its six control structures, in order to restore 43 miles of river and 40 square miles of wetlands. The one constraint on restoration was that the plan could not increase the flood risks to anyone in the basin.

Initially, there was vocal opposition from property owners who feared flooding. Local ranchers distributed a video of a leisurely boat trip down the canal, with "Let It Be" playing in the background. Realists Opposed to Alleged Restoration, a group of residents of a subdivision and two trailer parks at the canal's edge, vowed a furious fight. But as Toth put it, "the objections of most landowners were bought off with pure cash." The project's leaders have acquired 90,000 acres from willing sellers. ROAR has quieted to a whisper.

"We re not too active anymore," said ROAR's president, Helen Jordan. "The project isn't as bad as we thought. We still think it's a waste of money, but we ve accepted it."

After 12.5 million cubic yards of fill were moved—imagine a football field piled more than two miles high—the project's leaders completed Phase One 2 years ago. The benefits to the restored stretch of river have been instant and obvious. Oxygen levels are increasing, so native fish such as largemouth bass and black crappie are returning. So are skinny-legged wading birds—great blue and tricolor and black-crowned night herons, glossy and white ibis, roseate spoonbills with dazzling pink coats. Shorebirds and waterfowl are back, too. By contrast, in the unrestored ditch, there are few fish but gar and bowfin, and few birds but cattle egrets.

"It's an amazing achievement," said Col. James G. May, the Corps commander in Florida. Toth, however, believes the Kissimmee's success has been achieved despite the Corps.

The water district developed the plan; the Corps resisted for years. Toth said he still battles Corps engineers who "just see this as a construction project. You know—move the dirt."

Corps engineers wanted to armor some of the restored river with rock; he insisted on natural banks. They wanted to dump excess fill into nearby wetlands; he argued that the whole point of restoration is to preserve wetlands. Toth jokes about one Corps contractor who kept asking about "the old river"—by which he meant the canal. Phase Two is already 2 years behind schedule, in part because the Corps has shifted personnel to the Everglades.

"The Kissimmee restoration is a tremendous bright spot," said John Marshall, who runs an environmental foundation named for Art Marshall, his uncle. "But the Everglades restoration is still an irrational mess. The Corps hasn't learned anything."

"It's a wonderful project," said Juanita Greene, vice president of Friends of the Everglades, the grass-roots group founded by Douglas. "I wish I could say the same about Everglades restoration."

Toth hates to offend his bosses after they made him employee of the year, but he agrees that the Everglades restoration's leaders have missed the point of the Kissimmee. In fact, the dirt-moving alone from the Everglades project will destroy more wetlands than the entire Kissimmee project will restore. "They re doing the opposite of what we did," he said.

A closer model, the critics warn, is a project called Modified Water Deliveries.

In 1989, Congress authorized the $85 million "Mod Waters" to produce more natural water flows to Everglades National Park. It was the first Everglades restoration effort by the Corps, and it was supposed to herald a new era.

"We have fashioned balanced bipartisan legislation which will help restore an international treasure," Graham announced at the time.

Thirteen years later, Mod Waters has yet to deliver a drop of water to the park, and its price tag has risen to $191 million. It has been bogged down by lawsuits over flood control, property rights and endangered species. Its two hulking floodgates along the Tamiami Trail have never been used; they loom above the highway, concrete monuments to bureaucratic paralysis. In 1999, Representative James V. Hansen (R-Utah) groused at a hearing that "we will all be pushing up daisies before you fully get it resolved," and nothing has proved him wrong.

Terry Rice, who approved Mod Waters when he was a Corps colonel but now works for the Miccosukee tribe, called the project "a terrible quagmire." His wife, Joette Lorion, a former Friends of the Everglades president who works with him, called it an "absolute catastrophe."

"If they can't do Mod Waters, how on earth will they do [Everglades restoration]?" she asked.

Mod Waters was designed to shift flows from the flooded west side to the parched east side of Shark River Slough, the park's main flowway through the southern Everglades. It was also supposed to provide flood protection to the 8.5 Square Mile Area, a community of 350 homes and small farms on the wet side of the Everglades protective levee. The project would also relieve flooding on Miccosukee land in the central Everglades.

Here's a summary of the 13-year saga: Park officials and many environmentalists have pushed to buy out the entire 8.5 community, arguing that the waterlogged area never should have been homesteaded in the first place, and that building levees to protect it would dry out 30,000 acres of marshes and defeat the whole purpose of Mod Waters.

Community leaders and the Miccosukees have fought for the original plan, accusing park officials of arrogance, extremism and even racism against the area's Cuban Americans. The plight of a homely endangered bird called the Cape Sable seaside sparrow—dubbed Goldilocks because, like the Everglades itself, it needs just the right amount of water—has complicated everything.

The result is that no one is getting along—even though the Corps has hired dispute resolution experts—and nothing is getting restored.

The Corps, said Natural Resources Defense Council attorney Bradford Sewell, has balanced the warring interests "with all the grace of a megatanker in a bathtub." Sewell sued to protect the sparrow. The 8.5 residents sued to keep their homes. The Miccosukees sued to stop flooding on their lands. A Federal magistrate accused the Corps of having "driven a Mack truck" through Federal regulations. In an internal e-mail, Corps hydrologist Michael Choate accused park scientists of declaring a "jihad" against the Corps and the water district in order to flood Indians, homeowners and farmers.

"They think they are fighting a holy war against the infidels," Choate wrote. "It's going to take strong leadership and possibly a chopped-off hand or firing squad to get out of this."

Ultimately, the Corps proposed a partial buyout of the 8.5 area and pledged to complete the project next year. But last month, the magistrate recommended that the Corps go back to the drawing board. Environmentalists wonder: If the government can't get a few families to move to help restore a vital slice of the Everglades, how is it going to restore the entire 18,000-square-mile ecosystem?

Meanwhile, the C-ill Project, a related 1994 plan designed to boost flows to the park's other key flowway, Taylor Slough, has been stymied by similar flood-control wars pitting the park against farmers. C-ill hasn't sent a drop of water south, either.

"I could not think of worse advertisements for Everglades restoration," Sewell said.

So why has the Kissimmee restoration worked so well? Toth's first lesson could be summarized as: Just do it. His second lesson is: Let it flow.

Toth said he made one major design compromise, agreeing to leave eight extra miles of the ditch in place to make sure the project maintained flood control around Orlando's chain of lakes. His point is that the Kissimmee's designers didn't worry much about appeasing political interests. They just focused on reviving the river. Their solution was simple: Buy out ranches in the floodplain, blow up control structures and let nature run its course. It's an expensive solution—about $20,000 per acre of restored wetlands—but it's delivering as promised.

"This is about as pure as a restoration project can get," Toth said. "It's not about making all the stakeholders happy. It's not manipulating nature and managing different parts of the system for different things. We just went out and did our best for the environment." Everglades restoration, by contrast, is a highly complex creature of consensus.

Its original blueprint was unanimously approved by a commission including representatives of just about every Florida interest group; their lobbyists and consultants still battle over just about every decision. The restoration plan is designed to supply water to farms and people as well as to the Everglades, and it is committed to providing enough for people to help South Florida's population double. One water district report from 2000 predicted that the plan would satisfy urban needs by 2010 and agricultural needs by 2015, but would reach only "minimum flows and levels" to stop environmental damage to the Everglades by 2020.

The plan's leaders say it's unfair to judge them by the Kissimmee's standards. It's one thing to buy out the cattle pastures in the Kissimmee floodplain, but millions of people live in the Everglades floodplain. The Florida Legislature never would have passed the plan if it were purely environmental.

"The politics are very tricky. We walk a fine line," said John Ogden, the water district's chief Everglades scientist. "I m not saying we ve got a perfect plan. I m saying that some very idealistic ecologists have worked on this for 10 years, and this is where we are."

But many ecologists believe that the plan ignores the Kissimmee's second lesson: that it will be impossible to fix the Everglades without restoring more of the slow-moving sheet flow that once crept south across its sawgrass plains from Lake Okeechobee to Florida Bay.

There is no way to remove such communities as Miami Springs and Kendall Lakes and Sweetwater from the historic Everglades. Rather, the ecologists want to remove a diagonal levee and raise Tamiami Trail, th? two biggest barriers inside the existing Everglades, and buy more sugar fields below the lake for water storage. They want to undo as much as possible of what man has done.

While official brochures say the restoration plan will remove 240 miles of levees and canals, they do not mention that it will add 500 miles of levees and canals. Most of the new structures will be outside the Everglades, but the plan mostly seeks to restore natural depths rather than natural flows, shipping water wherever it's needed from wherever it's stored instead of reconnecting a fragmented ecosystem. Strowd said the district's water-moving system for South Florida is about to get "much, much, much more complex."

The project's leaders say they would love to obliterate obstacles in the Everglades, just as Toth did on the Kissimmee. The problem, they say, is that their advanced computer models show that a freer and more connected Everglades would not be a healthier one. They say that when they ran these "let it rip" scenarios through their advanced computer models, the north of the Everglades got too dry and the east got too wet. Now that the natural area has been narrowed and its soil has eroded, they say, the Everglades can never really flow properly again.

"It feels so right to remove those barriers," Appelbaum said. "It just doesn't work."

"It comes down to values," Corps hydrologist Richard Punnett said. "Do you believe it should be natural, or do you believe it should be more like the Everglades?"

But many scientists believe a more natural, more connected and less complex system would be more like the Everglades. The restoration's own science team has warned that the plan seriously underestimates the value of flow and connectivity. One of the water district's own studies has found that unfettered flow was vital to the life-nourishing topography of the historic Everglades, sculpting minuscule but crucial shifts in elevation between six-inch-high ridges and sloughs. Pimm, the Columbia ecologist, snorts that only an engineer could use a phrase like "let it rip" to describe the almost glacial pace of an unblocked River of Grass.

"Nature was doing fine before we started messing with it," he said. "This needs to be a free-flow system. But the engineers won't let it go."

In fact, technical documents show that the plan's own hydrology modelers found that a more natural water regime could provide more benefits to the Everglades.

The documents date to June 1999, not long after Everglades National Park officials had warned that the plan "does not represent a restoration scenario for the southern, central and northern Everglades." Environmentalists were threatening to torpedo the restoration unless it provided solid environmental benefits by 2010, the halfway mark of the project's spending schedule. "The deal was, real progress in the first $4 billion, or no deal," said Tim Searchinger, a senior attorney at Environmental Defense.

So the modelers agreed to test a scenario that more closely mirrored the original flow, sending more water south to the Everglades from sugar land instead of using it for irrigation, moving more water through the diagonal levee.

The new scenario wasn't perfect. It mildly reduced water supply benefits and pooled more water in a troublesome corner of the central Everglades. But the modelers concluded it would produce "a series of improvements to the ecosystem" by 2010, including "vast improvements" to the park. It would also reduce the plan's reliance on expensive and speculative technologies. This model helped persuade some skeptical environmentalists to support the plan in Congress.

But the new scenario didn't make it into the final plan, and hasn't shown up in any planning documents since.

"It's never been heard from again," Searchinger said.

"It's just been sort of left out there," said Robert Johnson, the park's top scientist. "Hopefully, it will be addressed at some point."

Appelbaum said the new scenario has never been abandoned. After a series of interviews, he said the Corps was committed to pursuing it. "We want to help the environment as fast as we can," he said.

Michael Ornella is the Corps manager who's supposed to make the restoration's engineers run on time. His office walls in Jacksonville are covered with flow charts that look like spaghetti, with schedules tracking 52 projects over 38 years. There are constant meetings with the water district, with other agencies, with the public. Ornella understands why some people don't trust the Corps to save the Everglades, but he believes times are changing.

"The Corps has never done business like this," he said. "Our outreach used to be: 'Here's our 1,000-page report.' The weakness of the organization has been adjusting to the reality of an open society. What we re doing flies in the face of the traditional Corps."

But there was a sign of the traditional Corps in Ornella's office, too. On an easel near his desk, someone had outlined a presentation in red marker, including a reminder to "manipulate, massage data to get reports we need."

"The Corps has made a career out of losing people's trust," said Melissa Samet, who runs a Corps reform program for the group American Rivers. "We d all be happy if they could turn that around on the Everglades, but it will take more than meetings to do that."

A Post series in 2000 detailed how the agency's leaders pushed to "grow the Corps" with wasteful and destructive water projects justified by skewed analyses. The General Accounting Office, the National Academy of Sciences and Pentagon investigators have documented similar problems.

Corps critics at environmental agencies and the Office of Management and Budget have been emboldened, and in March President Bush ousted Corps civilian chief Michael Parker for complaining about budget cuts. The Corps remains popular in Congress—politicians love to bring home water projects—but a new Corps Reform Caucus has begun pushing for an overhaul.

Now the Everglades restoration is supposed to showcase the Corps of the future, undoing its errors of the past. It is a mammoth challenge, full of technical, biological and political uncertainties. But Corps officials say they are eager to redeem themselves. They say they re committed to "adaptive management" and will fix the current plan as they go along.

"There are a lot of things we don't know that make us say 'whoa'," Ornella says. "Nobody's ever done this before. We're going to have to adjust."

There is one sign that the Corps and the district can adapt the plan to the benefit of nature: the Indian River Lagoon Project, a $1 billion component designed to store water and restore North America's most biologically diverse estuary.

Environmentalists hated the original design of the project, which relied entirely on structural reservoirs, levees and pumps. But Corps project manager Laura Mahoney took time to listen to critics and get to know them; she stripped to her skivvies to go swimming with activist Maggie Hurchalla, the sister of Democratic gubernatorial candidate Janet Reno. The project was redesigned to restore 90,000 acres of wetlands and uplands, plug drainage ditches and mimic the area's natural flow. Environmentalists love it now.

"There was a basic distrust of the Corps: How can people who did so much harm find an environmentally sensitive solution?" Mahoney says. "But we meant it when we said we were going to be environmentalists on this. This won't just look natural; it will be natural."

But the Indian River project, like the Kissimmee, is in a sparsely developed area, and its emphasis on nonstructural solutions has been a rare exception. "We can't expect everything to go that well," Appelbaum said.

It hasn t. The National Academy of Sciences concluded in March that a $6 million Corps water-quality study in the Florida Keys was riddled with errors. Corps officials recently underestimated the price of a southwest Florida project because they assumed in calculations that muck at the bottom of a lake would be dry.

Today, 23 of the restoration's 52 projects are underway. Construction is scheduled to begin in 2004, but work is already behind schedule. Sens. Robert C. Smith (R-N.H.) and Russell Feingold (D-Wis.) have vowed to block a bill approving new Corps projects—including several in the Everglades—unless it includes overhauling the Corps.

The next few years will be crucial for the restoration. Its leaders must choose whether to start building a vital reservoir for the Everglades now, or to let sugar firms keep farming land the government has already bought. They must move pilot projects forward to test whether the plan's four uncertain technologies work. They must set "water baselines" that will help determine how much water people, farms and the Everglades will get. And they must scramble to acquire land needed for restoration before it gets snapped up.

Just last week, the Miccosukee tribe bought a 223-acre West Miami parcel within the project's footprint, then took out advertisements warning restoration managers: "We will make sure you do your job, even though it's quite obvious you don't have the slightest idea how to do it."

But the most important decisions the restoration's leaders face now are more structural choices about how it will work. For one thing, they must decide how much power to cede to scientists. Everyone seems to agree that for the Everglades to recover, "sound science" must be its salvation, but there are tensions over money and methods. The plan's legislation required an independent scientific panel, but the Corps and the district are trying to promote a panel led by the Corps and the district.

"There's a lot of talk about sound science, but it doesn't seem to affect the high-level decisionmaking," said Charles Groat, director of the U.S. Geological Survey.

The first major test of the plan should come soon, when Bush's administration unveils the regulations mandated by the plan to "ensure restoration success."

Environmental groups have threatened to withdraw their support for the plan unless its rules include strong requirements for ecological action and goals for ecological progress, as well as a leadership role for Interior, which has jurisdiction over Everglades National Park.

But the first draft of the rules had no goals and limited Interior's role to consultation. A new version of the rules circulating inside the administration would establish the plan's original model—without the "vast improvements" for the park—as the "expected performance level."

"If we can't fix this plan, it might not just doom the Everglades," Pimm said. "It might doom our chances of ever getting money to do restoration again."

The Everglades plan, after all, is already the model for a $20 billion plan to replumb California rivers and deltas, and a $15 billion effort to restore Louisiana coastal wetlands. It is being watched worldwide. Rice, the former Corps colonel, used to think it would blaze an environmental trail. Now he doesn't know what to think.

"If we can't solve these problems here, with all this science and all this money, how are we going to solve them in the developing world?" he asks. "I know it can be done. Why aren't we doing it?"

[From the Washington Post, July 24, 2002]

EVERGLADES PROJECT REVAMPED; NEW RULES WOULD GIVE INTERIOR GREATER ROLE IN RESTORATION

(By Michael Grunwald, Washington Post Staff Writer)

The Bush Administration yesterday strengthened its proposed rules for the $7.8 billion replumbing of the Florida Everglades, saying the move will help make sure the largest project to restore an ecosystem in American history achieves its goal.

Environmental activists had lambasted a December draft of the project's "programmatic regulations" as a recipe for ecological failure. They were not satisfied with yesterday's draft, but even the most skeptical among them called it an improvement.

Lobbyists for other Florida interest groups—as well as Governor Jeb Bush (R)—also seemed pleased with the new rules, which will be subject to 2 months of public comment. "We've spent months sifting through the comments and concerns, and we've tried to craft something that's going to be accepted across the board," said Stuart Appelbaum, the Army Corps of Engineers planner who is leading the Everglades restoration effort.

The Corps and its State partners in the South Florida Water Management District will still lead the Everglades restoration effort, but the Bush Administration's proposal will bolster the role of the Department of Interior, a key demand of environmentalists.

The new draft will also require the setting of measurable environmental goals by December 2003, and will redefine "restoration" to include better water quality and a revived ecosystem as well as restored water flows.

"The first draft was not good at all," said Terrence "Rock" Salt, a former Corps colonel who joined the Interior Department during the Clinton Administration and is now an Everglades adviser to Interior Secretary Gale A. Norton. "But I'd take this in a heartbeat."

When Congress authorized the Everglades restoration plan in 2000, it specified that reviving the River of Grass should be the "overarching purpose," but that the plan should also provide for other "water-related needs" in South Florida, especially water supply and flood control.

In a recent Washington Post series of articles on the project, many government officials and environmentalists expressed concern that the ecosystem was being left behind. Many pointed to the original draft regulations—which included virtually no environmental assurances—as evidence of a local water supply and flood control boondoggle masquerading as a national rescue mission for alligators, panthers, otters and wading birds.

The new draft, said April Gromnicki, Everglades policy director for Audubon of Florida, is "much better." Then again, she said, "It couldn't have gotten any worse."

Gromnicki and other activists were pleased that Interior, which oversees Everglades National Park and 10 other South Florida parks and refuges, was given a coequal role in developing the plan's performance goals, and a stronger role overall.

But they were not pleased that Interior still has a subordinate role on the project's science team, and that those goals will not be enforceable by law. They were also concerned over language suggesting the Corps would try to replicate water flows from its original plan when subsequent modeling found that a different approach could bring "vast improvements" for the environment.

"I'd say we re about halfway there," Gromnicki said.

The Federal and Florida governments are splitting the cost of Everglades restoration, and even with the two Bush brothers at the top, the politics can be complicated.

The Federal interest in the project is fairly straightforward: restoring Everglades National Park and the rest of "America's Everglades," as the project's supporters like to call it. But the State interest is more complex. The plan is supposed to supply enough water for agricultural and urban users to continue South Florida's fast population growth, and Jeb Bush's administration has fought to make sure the project does not neglect his constituents.

So the White House, which coordinated the new draft through the Office of Management and Budget and the Council on Environmental Quality, faced a difficult task. It did not want environmentalists—who were so angry about the initial draft that Appelbaum joked about joining the Witness Protection Program—to withdraw support for the restoration. But neither did it want to alienate sugar growers, home builders or water drinkers during an election year for the president's brother.

It may have succeeded.

Robert Dawson, a lobbyist for Florida's agriculture industry, said that while his clients may object to the enhanced role for Interior, "things are moving forward well." Kathy Copeland, the water district's Federal liaison, said State officials were pleased as well.

"We re very happy," Copeland said. "We think the Army and OMB did a great job."

Even Bradford Sewell, a Natural Resources Defense Council attorney who has been one of the plan's harshest critics, called the new draft "a clear improvement." But he also said there were still "fundamental flaws." The ultimate question, he said, is whether these rules will ensure the restoration of the world's most famous wetland.

"The bottom line is, this isn't going to do the job," Sewell said.

[From the Washington Post, June 25, 2002]

WHEN IN DOUBT, BLAME BIG SUGAR; ONCE THE EVERGLADES CHIEF ECOLOGICAL VILLAIN, INDUSTRY HAS PLENTY OF COMPANY

(By Michael Grunwald, Washington Post Staff Writer)

CLEWISTON, FL: First Carl Hiaasen skewered greedy sugar barons in such novels as "Strip Tease." Then Marge led a campaign against the villainous Mother-Loving Sugar Corp. on "The Simpsons." But now Big Sugar is in really big trouble on the pop culture front. On a recent episode of "The West Wing," President Bartlett's political aides floated a $7.8 billion plan to save the Everglades. And if that sounds vaguely familiar, there's a twist: The money would come from "the same place the pollution does—the sugar industry!"

Big Sugar—like Big Tobacco and Big Oil—has a lousy image. It didn't get that image entirely by accident. But environmentalists have exploited the common caricature of Big Sugar—diabolical tycoons who buy politicians and ravage the Everglades to fatten their wallets—to distort an important debate over the sugar industry's future in South Florida.

Even Dexter Lehtinen, who sued Big Sugar over Everglades pollution in 1988 when he was U.S. attorney in Miami, says the situation is much more complex than it looks on TV. "The constant focus on sugar is a self-serving delusion," said Lehtinen, who is now the Miccosukee Indian tribe's attorney. "People want to say: We re good guys, Big Sugar is the bad guy. It's not that simple." In the real world, sugar fields do pollute the Everglades, but they re not the sole source or even the main source of the ecosystem's decline. In fact, the sugar industry has dramatically reduced its impact on the Glades, and although Lehtinen's landmark lawsuit forced the industry's hand, sugar-cane farming is one of the least damaging possible uses

of its land. Big Sugar has become a scapegoat for the problems of the River of Grass—not a sympathetic scapegoat, perhaps, but a scapegoat nonetheless.

"We don't have horns and a tail," said Robert Coker, a vice president for U.S. Sugar Corp. here in America's Sweetest Town. "There's this evil myth of Big Sugar. We want people to know the facts."

Some of the facts resemble the caricature.

There are 450,000 acres of sugar fields in the Everglades Agricultural Area below Lake Okeechobee, blocking the natural water flow of the Everglades. There is a Federal program that props up domestic sugar prices, costing American consumers $800 million to $1.9 billion a year, according to the General Accounting Office. The Federal Government buys back sugar the industry can't sell, costing taxpayers hundreds of millions of dollars more. The industry also uses hundreds of billions of gallons of South Florida's water but pays minimal water taxes.

These and other perks are the direct result of Big Sugar's extraordinary political clout, most famously illustrated in the Starr Report when President Bill Clinton interrupted his breakup with Monica Lewinsky to take a 22-minute phone call from Alfonso Fanjul Jr., chief executive of Florida Crystals Corp.

The industry donates millions of dollars to State and Federal politicians, and almost invariably gets its way in public policy disputes. "I saw firsthand how Big Sugar bought the Florida Legislature," said Barry Silver, a former Democratic assemblyman from Boca Raton.

The industry gets its way in water disputes, too. During the drought of 2000, it persuaded the South Florida Water Management District to revise its guidelines to siphon water from an already parched Lake Okeechobee for irrigation.

To environmental groups like Save Our Everglades, the biggest problem with Big Sugar is the phosphorous it pumps south to the River of Grass and backpumps north to Lake Okeechobee. The Everglades is a phosphorous-intolerant ecosystem, and phosphorous-rich sugar runoff has transformed some of its sawgrass plains into dense clumps of cattails. That's why Lehtinen filed his lawsuit.

But the suit led to the Everglades Forever Act, which required the State to build the world's largest artificial marshes to filter nutrients out of runoff entering the Everglades, and the sugar industry to reduce its annual phosphorous output 25 percent. Over the last 6 years, Big Sugar has far exceeded those mandates, reducing its output 56 percent by retaining more water on its land, cleaning its ditches more often and using less fertilizer.

Last year, sugar runoff averaged 64 parts per billion (ppb) of phosphorous, and dipped below 30 ppb after leaving the marshes. That's still higher than the almost imperceptible 10 ppb the Everglades needs to recover, but it isn't the green slime or oozing sewage that most people think of when they hear "pollution." Miami's tap water registers more than 400 ppb.

"We weren't winning environmental medals for a long time. No one was," said U.S. Sugar executive Malcolm "Bubba" Wade, who served on the commission that developed the nonfiction $7.8 billion Comprehensive Everglades Restoration Plan. "But you can't make us the villain anymore."

Many environmentalists contend that while Big Sugar may be doing its part, it's not paying its share; it's paying only one-third of the $800 million marsh project. In 1996, the industry spent $30 million to fight off a penny-a-pound sugar tax, but voters approved a "Polluter Pays" constitutional amendment declaring farmers "primarily responsible" for cleanup costs. However, the Legislature never translated the amendment into law, and the State Supreme Court recently upheld the status quo.

"Innocent taxpayers are paying to clean up Big Sugar's mess," said Save Our Everglades President Mary Barley.

But it's not just Big Sugar's mess. The State has urged—but not forced—cattle ranchers above Lake Okeechobee to reduce runoff to 1,200 ppb of phosphorous, but only half their pastures meet the target. Runoff from one ranch recently tallied 9,000 ppb. Yet no one complains about Big Cattle. Environmentalists howl when sugar farms backpump excess water to the lake, but sugar runoff is often the cleanest water entering the lake that doesn't come straight from the sky.

No one complains about Big People, either. But runoff from development is far dirtier than runoff from sugar fields—and millions of people now live in the original Everglades.

"I tell people: Look in the mirror. You re the problem," said State Senator Lee Constantine, a Republican who works in real estate. "No one ever listens."

Environmentalists and sugar barons do agree on one thing: The worst thing that could happen to the Everglades would be the suburbanization of the sugar fields. Route 27 into Clewiston is now a four-lane highway, and sugar executives have warned that if their land can't grow sugar, it will grow golf courses and condos. It's only a half-hour drive from Fort Lauderdale or West Palm Beach.

"It's a very realistic threat to South Florida," Wade said.

So there are decisions to be made. Vice President Al Gore once pledged to take at least 100,000 acres of sugar fields out of production, and many Florida activists want to buy out all sugar farms in the State.

They say buying sugar land serves a quadruple purpose: more water storage and a more natural flow, less water demand and less water pollution. Nathaniel Reed, a former Nixon administration official who is a key environmental leader here, used his keynote speech at this year's Everglades Coalition meeting to denounce the industry for everything from low pay to cavities.

"The insatiable demands of the sugar barons can't be met without sacrificing Everglades restoration," Reed said.

For now, though, the Everglades restoration plan will take only 60,000 acres of sugar fields out of production. The industry has invested heavily in mills and refineries, and it wants to grow as much sugar as possible. Former Interior secretary Bruce Babbitt, who was pilloried by environmentalists for cutting deals with the industry, says policymakers must negotiate with sugar executives in good faith. Calling them names and twisting facts, he said, will not help the Everglades.

"I think, inevitably, more sugar land is going to have to go," Babbitt said. "But that's not a statement that anyone is evil."

Senator JEFFORDS. Senator Graham, I welcome you. Of course, this is an important hearing for you. I want to thank you for inviting me down to the Everglades. In fact, you did such a wonderful job, you even arranged for Vermont weather when I was down. At 40 degrees, it didn't seem as attractive as I thought it would be. But, thank you. Please proceed.

OPENING STATEMENT OF HON. BOB GRAHAM, U.S. SENATOR FROM THE STATE OF FLORIDA

Senator GRAHAM. Thank you very much, Mr. Chairman. We always try to be as hospitable as possible in Florida. I want to thank you and Senator Smith for holding this oversight hearing on the implementation of the Comprehensive Everglades Restoration plan.

I want to particularly thank Senator Smith for the leadership that he has given to Everglades restoration over a number of years. His interest and dedication to restoring this natural treasure were instrumental in Congress' authorization of the restoration plan in 2000.

I hope that Senator Jeffords, Senator Inhofe and Senator Voinovich as well as Senator Smith will accept our invitation to visit the Everglades again and personally see what is happening there.

Over the years I have been asked by many people, "What is so special about the Everglades?"

First I will tell that, as I have just extended this invitation, they should come and visit in order to fully experience the Everglades. If that happens, I will share with them some of my memories as a young boy living on the edge of the Everglades.

We have surrounding us today pictures from one of America's great outdoor landscape photographs, Clyde Boucher. Clyde, for many years, has been photographing the Everglades. He purposely photographs in black and white in order to capture the drama of the Everglades system.

I want to thank him for sharing some of his photographs which help answer the question of why are the Everglades so special.

Senator Inhofe has raised the question about the fact that there will be a significant degree of experimentation as we proceed with the restoration of the Everglades. In fact, there is a special process

laid out by which projects will be tested before they are implemented on a full-scale basis.

The reason for that is that unlike many other environmental systems where there is a large body of previous evidence of what techniques will be effective, the Everglades deserve the overused word "unique." There is no other Everglades anywhere.

So by definition when you are making decisions as to what steps will be most efficacious in restoring the Everglades, there is a degree of experimentation. I am confident that the process that has been developed for the experimentation, that it gives us the best experimentation of finding methods that are both effective and cost-effective in order to carry out their intended purpose.

The path to the extinction of the Everglades accelerated in 1948 with the authorization by Congress of the Central and Southern Florida Flood Control Project. This project unleashed a chain of events which culminated with the Everglades parks, including the Everglades National Park, the Big Cypress National Fresh Water Preserve ending up on the list of the ten most endangered parks in the country, a list annually developed by the National Parks and Conservation Association.

The passage of the Water Resources Act of 2000 was a closing of the chapter in this history of natural resources in America. We have now turned the page to a new chapter of restoration of America's Everglades.

The passage of the Comprehensive Everglades Restoration Plan and the authorization of the initial phases of the plan in the Water Resource Development Act of 2000 are the beginnings of this next chapter.

There are several key components to this chapter. They include the Water Resource Development Act authorization of ten critical projects for Everglades restoration, programmatic authority and four pilot projects. These components are significant for the following reasons:

Together they embrace a true Federal–State partnership in this restoration project by evenly splitting the cost of construction as well as operation and maintenance, 50–50 between the Federal Government and the State of Florida.

Second, they assure the result of our efforts in restoration by providing assurances, assurances that the water generated by the plan will in fact be delivered to the natural system.

Third, they use a new paradigm for the Army Corps of Engineers, one that involves public participation and independent review. They acknowledge the technical uncertainties with our body of knowledge about the Everglades and accommodate this information into project execution by using pilot projects, adaptive management, oversight and scientific review.

Today, we are focusing on the implementation of the Water Resource Development Act 2000 authorizations. In part we have asked our witnesses to provide a state of the environment for the Everglades report and their views on the execution of the plan. We also ask for their views on the programmatic regulations which have been released for public comment.

This last item is critical. The programmatic regulations are one of the cogs in the assurances wheel of the Water Resource Develop-

ment Act of 2000. The regulations are to be issued with the concurrence of the Department of Interior and the Governor of the State of Florida, a first in Federal statute.

The statute balances both the restoration and the primacy of the State water law. My concerns with the initial draft of the programmatic regulations centered on issues of whether there should be interim goals, the role of the Department of Interior and restoration assurances regarding water supply to the natural system.

I have some remaining concerns on each of these elements of the regulation and I will raise them during our question and answer period. I am also interested in hearing from each of our witnesses on the topic of the programmatic regulations.

Of particular importance in the programmatic regulation will be the process created for developing project implementation reports. These are the engineering documents for each project in the plan. These reports require the State to issue a water reservation to protect water intended for the natural system from the consumptive use permitting process.

The Federal Government is prohibited from beginning construction from any individual project until the water reservation process has been satisfactorily completed. If this set of checks and balances is followed completely in the programmatic regulation, the water developed by the restoration plan will be made available for the natural system.

This committee has both the duty and the desire to see that this is successfully accomplished. Because of this commitment, we will ask difficult questions, demand progress, and we will see this project through to completion.

Undoubtedly there will be challenges as we work through the detailed project execution. But we will work together to resolve those changes. We will find our commonalities and we will move this restoration project forward.

Mr. Chairman, I appreciate your holding this oversight hearing today. I look forward to hearing from the witnesses. I am pleased that we are joined by my good friend and colleague, Senator Bill Nelson, and we look forward to working with each of you to an understanding and the execution of our role in the most significant environmental restoration project that the world has ever undertaken.

Thank you, Mr. Chairman.

Senator JEFFORDS. Thank you.

Senator VOINOVICH.

OPENING STATEMENT OF HON. GEORGE V. VOINOVICH, U.S. SENATOR FROM THE STATE OF OHIO

Senator VOINOVICH. Thank you, Mr. Chairman and thank you for holding this hearing today on the implementation of the Comprehensive Everglades Restoration Plan.

As the former chairman of the Transportation and Infrastructure Subcommittee, I am proud to be the sponsor of the Water Resource Development Act of 2000 which approved this ambitious plan to restore one of our nation's great national treasures.

Mr. Chairman, I have not only invested a lot of time on the Everglades restoration, I've spent a lot of time in the Everglades as well

as Governor, I spent a day observing the Everglades from Hovercraft, on foot and on a helicopter.

It was brought to my attention the environmental impacted parts of the Everglades courtesy of the Florida Fish and Wildfire Conservation Commission.

In addition, my wife, Janet, and I have made many visits to Florida's Loxahatchee National Wildfire Refuge and the Everglades National Park. I have done a lot of fishing in Florida Bay and in the Everglades. So I am very familiar with the Everglades and expect to be down there. I may take up your education in January. In fact, I have told my staff I want to stop over and spend some time there.

In January of 2000 I had the opportunity to participate in an EPW Committee field hearing in Naples on the Everglades. Of course, when I was there we had a chance to visit the Everglades and again visit the Loxahatchee Wildfire Refuge. Without a doubt, the centerpiece of Water Resource Development Act 2000 is the Comprehensive Everglades Restoration Plan.

Two years ago we worked hard to ensure that the Everglades title to the bill addressed the concern of all parties. Working on WRDA 2000 has been one of the highlights of my career in the Senate. The Everglades plan is not only the largest restoration project that the Corps has undertaken, as Senator Graham has said, it is the largest water quantity restoration project in the world.

We have an enormous challenge ahead of us and we have to make sure that we do it right.

My role in putting together the Everglades title was to ensure that we move the plan forward using the same criteria that apply to all projects in the WRDA bill.

Originally, as you recall, the administration's Everglades proposal deviated substantially from Corps of Engineers and Environment and Public Works Committee policies for other water resource projects, particularly regarding the specificity required for project reauthorization.

In addition to the lack of specificity in the Everglades plan, I was also concerned about the cost of Everglades restoration relative to the cost of all Army Corps of Engineers programs nationwide.

The Everglades plan requires construction appropriations of $200 million during the peak years of construction, which is 12 percent of the total budget appropriation for all of the Corps of Engineers construction projects. It could be more than that.

In March of 2000, I asked the General Accounting Office to review the big picture of Everglades restoration and water quality issues to help answer questions about how much it would cost. In its report which was the subject of a Transportation and Infrastructure Subcommittee hearing in September of 2000, the GAO lists several uncertainties in the plan that would likely lead to additional water quality projects and increase the total cost of the plan over the Corps estimate of $7.8 billion.

It was clear from the report that there were too many unknowns and uncertainties in the plan to estimate what the final price tag would be. Senator Inhofe, I certainly hope that it is not as much as you think it is going to be.

As we all know, the Corps faces a $44 billion backlog and it has insufficient construction funds. Everybody ought to understand that. Only about $1.7 billion per year. In addition, since we have improved the Everglades plan our nation's priorities have changed significantly. One of the things that has changed is that we are going to borrow $340 billion this year to keep the government going. It looks like next year it could go up as high as $370 billion.

So if anybody here thinks that we are flush with money, they are mistaken. We have a tough row to hoe in terms of setting our priorities for this nation and we have some hard decisions that need to be made.

As the Everglades plan is implemented, we will, as I say, have to prioritize Corps of Engineers projects and weed out projects that are no longer justifiable. That means we are going to have to get rid of some projects around here and step on some of our colleagues' toes, but it is about time we got on with it, Mr. Chairman. You know, we need to do that.

Our most important accomplishment in WRDA 2000 was the requirement to apply the same level of congressional oversight to Everglades projects that apply to all other Corps projects. Before we instituted the new requirement, ten projects had been proposed for authorization at a cost of $1.1 billion, without customary feasibility report and without individual project justification.

Under WRDA 2000 the Secretary of the Army must submit a project implementation report for each individual project and no appropriations may be made to construct any projects until they are approved by both the Senate Committee on Environment and Public Works and the House Committee on Transportation and Infrastructure.

In addition, we reduced the level of programmatic authority for restoration projects that can be accomplished without congressional review. The levels we set are applicable to other parts of the Corps program.

We also eliminated the provision that would have allowed reimbursement to the State of Florida for the Federal share of work accomplished by the State. However, the State retains the ability to receive credit, which is I think significant, for work in kind for up to 50 percent of the work, but only proportionate to appropriated Federal expenditures. In other words, they cannot move ahead of Federal appropriations.

Finally, I appreciate the fact that the Bush Administration is upholding the Secretary of the Air Force's decision to block the development of a commercial airport at the site of the former Homestead Air Force Base, which is located within only a few miles of Everglades National Park, Biscayne National Park, and the National Marine Sanctuary.

It would have been irresponsible for the Federal Government to approve an investment of billions of dollars to restore the South Florida ecosystem, while at the same time approving a reuse plan for Homestead Air Force Base which is incompatible with restoration objectives.

WRDA contained a sense of the Congress provision expressing these concerns and, by golly, I'm pleased that the Administration is doing the right thing in terms of what they are doing there.

When I take my grandchildren to visit the Everglades in the next couple of years and we look up at the sky, we won't see commercial aircraft disturbing the air space over the park or polluting the air.

Today's hearing is the first oversight hearing on the implementation of the restoration plan. I am sure we are going to be having a lot more of them. I understand there has been a lot of debate about the Corps' proposed programmatic regulations for implementing the plan to ensure the goals and purposes of the plan are achieved.

The primary and over-reaching purpose of the plan is to restore the South Florida ecosystem. That is why Congress is committed to paying 50 percent of the costs and we want to make sure that we make a sound investment.

I look forward to today's witnesses, hearing from them about the progress that we have made during the last 2 years. I understand it has been significant. I am interested in hearing about what we have learned in terms of science and technology improvements, potential environmental benefits and cost estimates.

I am glad the Department of Interior is here and will testify about the efforts to address another threat to the Everglades, invasive, exotic species which are a real threat to the Everglades.

I understand that too well, coming from Lake Erie where invasive exotic species, the Zebra Mussel, Asian Carp and Sea Lamprey are threatening our great lake.

Thank you, Mr. Chairman.

Senator JEFFORDS. Thank you, Senator.

Senator Chafee?

Senator CHAFEE. Thank you, Mr. Chairman for holding this hearing. I certainly think it is appropriate that we have a hearing, considering the enormous amount of money we are investing in this worthwhile project and also it is so important to restore the health of a 17,000 square mile ecosystem. So I support this hearing and look forward to the testimony.

Senator JEFFORDS. Thank you.

Now I am pleased to welcome our colleague, Bill Nelson of Florida, who will be making a statement for the committee. If you would like to join us at the dais afterward, please be welcome to come up and help share your understandings with us.

Go ahead, Bill.

STATEMENT OF HON. BILL NELSON, A UNITED STATES SENATOR FROM THE STATE OF FLORIDA

Senator NELSON. Thank you, Mr. Chairman. I want to thank you for your leadership and the Senator from New Hampshire, Senator Smith, has been so important as a leader in helping Senator Graham recognize and do something about the preservation of this unique natural and international resource that we have.

I am delighted to join my colleague from Florida to underscore the importance of the Everglades. Whereas Bob has brought in these beautiful photographs of the natural beauty of the Everglades that you would experience, I wanted to take you out into space and show you what it looks like as I looked at it from the window of a spacecraft.

Mr. Chairman, the Everglades today is about a third of the size that Mother Nature had intended it to be because the waters supplying the Everglades actually start this far up, right near Orlando, in a place called Shingle Creek, flowing south into the Kissimmee River. The Kissimmee River flowing into Lake Okeechobee and then the waters from Lake Okeechobee flowing in a massive sheet flow as they flow south and southwest and empty into Florida Bay and in the area over on the southwest coast called the Ten Thousand Islands, a place of unique beauty with no beaches, but rather a shore of mangroves, and you can imagine the rich, ecological territory of the mangroves and the Gulf of Mexico coming together where so many of the species come in to hatch and to multiply.

What happened over the years was that folks started coming to Florida. Henry Flagler, in the 1890's, brought his railroad south and the old Crackers, which are the old natives, used to say that during the summer we lived on fish and alligators and during the winter we lived off of the tourists.

That has replicated itself over the years with an extraordinary explosion of population that occurred after World War II, when so many of the veterans had come to Florida. There were so many airfields that were built up and down the coast of Florida, the training occurred. So in the economic revival that occurred after the war, lo and behold, a lot of folks started coming.

So what Mother Nature was suddenly confronted with is not a land of extraordinary beauty because it was uninhabited as it had been over the years, but now suddenly confronted with a population of six and a half million people today in that south Florida region that have to get water from some place.

At the same time, in the early part of the last century, there were a series of mega-hurricanes which caused tremendous floods and as a result, there was one in the 1920's where some 2,000 people were drowned in the Lake Okeechobee region. So as Florida was beginning to be developed and populated in the southern part the idea of flood control came in and the idea was that when the rains came, get the water out.

So a series of dykes and huge drainage ditches were constructed which then the idea was when the water came, dump it to tidewater. Thus, for a half a century the Army Corps of Engineers, in a system that started way up there in central Florida, coming down through the Kissimmee River chain, straightening out the Kissimmee River so that it became a ditch instead of the meandering stream that Mother Nature had intended it to do, and by the way, let me say about my colleague, when he was Governor he started the process that would revive the Kissimmee River instead of being a ditch, a straight ditch, so that it could return to its natural meandering state with all of the ecological advantages that that would occur.

Governor Graham offered leadership that is unparalleled and today that river is being restored as much as possible into its natural state.

Then another phenomenon occurred because just south of this huge body of water there is some of the most fertile soil in the world. It became very apparent that this was exceptional soil for

the growth of agricultural products. So over the course of that half century you had the development of six and a half million people on the southeastern and the southwestern coast, all demanding water, a major agricultural area basically to the south of Lake Okeechobee where the sheet flow used to occur further south and then each of those with their demands for water while at the same time the water was being dyked and drained out to the salt water of the Atlantic or to the Gulf.

That is what this project is all about. The Everglades is a third of the size that it used to be. Trying to accommodate the six and a half million people that have to have water, trying to accommodate the legitimate agricultural interests, and at the same time preserve the Everglades and restore it as much as possible to the way that Mother Nature had intended it as you would see from the window of a spacecraft.

Mr. Chairman, that is why Senator Graham and I are so vigorous in support of this project. There are innumerable groups that you will hear from today that support this project, not the least of which is the Army Corps of Engineers, the Department of Interior, the State of Florida, the Miccosukee and Seminole Tribes, the Everglades Coalition. If you will listen to their comments, continue to give us the support that you have given us and help us preserve this wonderful natural resource that is such a resource for Planet Earth.

Thank you.

Senator JEFFORDS. Thank you, Senator, for an excellent statement and the historical information that I appreciate and of which I was unaware.

Will the next panel please come forward and be seated?

Thank you for your appearance today. We deeply appreciate your being here.

I will have to be leaving shortly, but I want to thank all the witnesses that are going to appear, that have appeared for this very important project. Yesterday, I introduced our counter project with Senator Clinton up in the Lake Champlain area and to make sure that we have a program and system as you have developed, Bob.

Please proceed, Mr. Brownlee.

STATEMENT OF HON. R.L. BROWNLEE, ASSISTANT SECRETARY OF THE ARMY FOR CIVIL WORKS, U.S. DEPARTMENT OF THE ARMY

Mr. BROWNLEE. Mr. Chairman and members of the committee, I am Les Brownlee, Under Secretary of the Army and Acting Assistant Secretary of the Army for Civil Works.

I have a statement which, with your permission, I will submit for the record and summarize it for the committee.

It is my pleasure to be here today along with my Federal agency partners from the Department of Interior and the U.S. Environmental Protection Agency to speak on the state of the Everglades and the plan to restore this national treasure unique in all the world.

I would like to thank the committee for providing the necessary leadership and vision in helping to make this plan a reality.

Over the past year I have learned a great deal about the Everglades, the factors that make it special, its importance to the world's ecology and the many challenges facing all those concerned with its restoration.

I have enjoyed the opportunity of touring South Florida and meeting with the agencies and stakeholders that are meeting these challenges.

People have been discussing the need to save the Everglades for many years. Now, after a great deal of debate and consensus building, the Army, through its Corps of Engineers, has been given the task of working with other Federal agencies, Native American tribes, the State of Florida, local governments and many other interests as we move from discussion to implementation of a bold innovative restoration plan.

The Everglades Restoration Task Force has proven indispensable in coordinating the development and implementation of that plan. The counselor to the Secretary of Interior, Ann Klee, seated to my left, serves as the chair of this important task force. I would like to recognize her in front of this committee for her very able service as the chair of that task force.

As Governor Jeb Bush recently said in a Washington Post editorial, "While it would be hubris to suggest the Comprehensive Everglades Restoration Plan is perfect, I believe its goals can be achieved and are worth the effort to achieve them."

I share the Governor's view and I will continue to work with the Congress, the State of Florida and all the stakeholders during the implementation phase to improve the plan and turn goals into realities.

I am impressed by the breadth of knowledge held by so many concerned parties, the thoughts they have to share and their unwavering commitment to the Everglades restoration effort are invaluable.

As Governor Bush noted, there is a "remarkable coalition brought together to restore the River of Grass."

There is a strong sense of accomplishment at having delivered the Comprehensive Everglades Restoration Plan to Congress and a strong commitment to ensuring that the plan is implemented successfully as authorized and intended by the Congress.

Through this effort and with the cooperation of all concerned, the Everglades will be restored for future generations.

Since becoming the Acting Assistant Secretary of the Army of Civil Works last March I have participated in the Everglades Restoration Task Force and have frequently met with the Corps of Engineers to learn more about the restoration effort.

I can assure you that I have found the Corps staff to be extraordinarily capable and dedicated to helping restore the south Florida ecosystem.

As specified by Congress, the overarching goal of the Comprehensive Everglades Restoration Plan is the restoration, preservation and protection of the south Florida ecosystem, while providing for other water-related needs of the region. The commitment to achieve restoration was reflected in the agreement signed last January by the President and the Governor of Florida that assures that water

made available by this plan and necessary for restoration will be reserved for the environment.

This initiative has been developed through consensus. Agreement about how the restoration will proceed is a result of contributions of many at the Federal, tribal, State and local level who participated in a well-structured, open and inclusive process. This is the most ambitious restoration initiative ever undertaken. Accomplishing this goal will take time, and we must be patient.

South Florida has been severely affected by human activities for over 100 years. Restoration will not happen overnight. The commitment must be for the long term. We all know that the plan does not now contain all the details that will be required for implementation; nor does the plan answer each and every question raised. However, we believe that the plan establishes a clear and positive framework that can guide our efforts to restore the Everglades and the south Florida ecosystem.

We will make modifications as needed to the plan as more information becomes available. Each project will be made better by our ability to monitor, assess and adapt and we are fully committed to the concept of adaptive management.

The Army intends to fulfill the promise, the theme of the 17th Annual Everglades Coalition Conference held in January 2002, which you, Mr. Chairman, and Senator Graham attended. This is a daunting task, however, it is one to which the Army is fully committed.

The Corps of Engineers, in close coordination with my office, will lead this important initiative for the administration. Since the passage of WRDA 2000 the Corps has made significant progress. On August 2, 2002, the Army published in the Federal Register the proposed programmatic regulations that will guide the development of the plan over the next several decades.

Formal public comment on these proposed regulations ends on October 1, 2002, after which the Corps will evaluate the comments and finalize the rule. The Corps has not been working alone on drafting these programmatic regulations. There have been a series of meetings and workshops with Federal and State agencies, Native America tribes and many other stakeholders and all have helped.

To address the scientific needs of the plan, the Corps and its primary cost-sharing partner, the South Florida Water Management District, have established six special multi-agency teams to refine performance measures, develop performance monitoring plans and assess the contributions of each project to the total restoration goals.

The Corps has been working closely with the Department of Interior to better integrate the expertise of the U.S. Fish and Wildlife Service and the Everglades National Park into plan implementation and evaluation.

They have also engaged the services of the National Academy of Sciences to review ongoing activities related to the aquifer storage and recovery features in the Florida Keys.

The Army will continue to work closely with the Congress, especially this committee, to ensure successful completion of this project and restoration of the Everglades.

Mr. Chairman, thank you for the opportunity to testify on this important endeavor and I will be happy to answer any questions the committee may have.

Senator JEFFORDS. Well, thank you very much for an excellent statement. We will reserve the questions until all the witnesses have testified.

Mr. GIBSON.

STATEMENT OF TOM GIBSON, ASSOCIATE ADMINISTRATOR FOR THE OFFICE OF POLICY AND REINVENTION, U.S. ENVIRONMENTAL PROTECTION AGENCY

Mr. GIBSON. Good morning, Mr. Chairman, members of the committee. I am Tom Gibson, Associate Administrator for Policy, Economics and Innovation at EPA. I am also EPA's representative on the South Florida Ecosystem Restoration Task Force.

I am pleased to be here on Governor Whitman's behalf this morning to discuss the progress restoring the Everglades. I would like to start by recognizing the members of the committee, the committee's leadership on this. It is good to be working with Senator Mack and Senator Voinovich again. I worked with them on the bill when I was here.

I also really want to recognize my former boss, Senator Smith, who really had such a key role in getting this bill through. He gave me the opportunity to work on this. It was the highlight of my public service and I thank him for it. It was a privilege. I wish he was here today.

EPA is a strong supporter and active participant in making CERP work. Our goal is to maximize the environmental benefits of all 68 strategic components in the plan. EPA provides technical, financial, legal and regulatory assistance in south Florida. We also contribute to restoration efforts through on-going responsibilities under the Clean Water Act, the Safe Drinking Water Act and other Federal laws.

I would like to use my time to highlight some of EPA's ongoing activities in support of CERP implementation. EPA had a major role in the development of CERP and we continue to play a role in its implementation.

One of our first responsibilities was to provide input on the programmatic regulations which, as Mr. Brownlee noted, are currently undergoing public comment. These program regulations will in fact ensure that CERP components and CERP projects address water quality as required by WRDA 2000.

The regulations recognize EPA's role by making the agency a partner on the key CERP implementation teams such as the recovery team as well as the project delivery teams. EPA is also heavily involved in the CERP pilot projects and the initial list of CERP authorized project components.

We are assisting in the development of reclaimed water reuse criteria for several large wastewater treatment plants in Dade and Palm Beach Counties and in the review of individual projects under the National Environmental Policy Act.

In addition, EPA is working with the State on the evaluation and permitting of the ASR wells. These wells provide underground capacity for water storage and can help replace the natural capacity

that has been lost in the Everglades during the years of development and draining and ditching.

Restoring at least a portion of this storage capacity is essential to accommodating the region's water needs and the plan's success. To this end CERP calls for the use of more than 300 ASR wells. However, there are some issues to work through first and the ASR pilot projects will provide us with the answers we need to the technical and regulatory questions that we need to answer before a full-scale ASR implementation.

Another priority is reducing phosphorus levels which can overwhelm aquatic ecosystems. The State must propose a numeric phosphorus criteria by the end of 2003. The proposed criteria then must be submitted to EPA for review and approval. In order for EPA to grant approval we must find the proposed criterion will provide adequate protection for Everglades waters.

The Florida Department of Environmental Protection has initiated the rulemaking process and proposed a new criterion of ten parts per billion of phosphorous to their Environmental Regulatory Commission as required by State law before it is submitted to EPA. We anticipate this process will extent to 2003.

In southwest Florida, one of the fastest growing regions in the country, loss of wetlands is an issue that can impact the Everglades ecosystem. EPA has been working with the Corps of Engineers on the development of special permitting review criteria to be used specifically in the southwest Florida areas that will help both protect the wetlands, protect the receiving waters and give people certainty throughout the permitting process in southwest Florida.

Another issue that we are working on is mercury contamination. We are finding that the highest mercury contamination levels in the Everglades occur in the remote portions of the Everglades and that the major sources of contamination are rainfall and atmospheric dry deposition.

The estimated contributions from local versus global and regional mercury sources vary widely. To more accurately quantify these contributions and to better understand the ecological implementations of mercury contamination, EPA is participating in a multi-year Federal, State, private monitoring and research study.

From 1989 through 1999 our partners contributed about $30 million to this study and additional research is still underway. EPA is also actively involved in research that aims to restore Florida Bay. Over the past decade, numerous biological, chemical and physical changes have occurred in the bay.

In 2001, a Florida Bay and Florida Keys Feasibility study team was organized in support of CERP. Its purpose is to determine the modifications that are needed to restore water quality and ecological conditions of the bay while maintaining or improving these consequence throughout the Florida Keys.

The Florida Keys National Marine Sanctuary and Protection Act of 1990 requires EPA and NOAA to collaborate on a water quality protection program for the area, which includes the United States only living barrier reef.

EPA and the State are now working to implement that plan and most of the monitoring, research, data management and edu-

cational initiatives are being funded by EPA. Through 2002, EPA has contributed more than $10 million to this initiative.

Finally, EPA recently designated all State borders within the boundaries of the Florida Keys National Marine Sanctuary as a no-discharge zone. This rule prohibits the discharge of sewerage, whether treated or not, from all vessels into the State waters of the sanctuary.

EPA will continue to provide funding and other resources to support implementation of the Water Quality Protection Plan for the Keys and the bay, including the on-going comprehensive monitoring and special studies projects.

In closing, EPA continues to fill a variety of roles to advance the cause of Everglades restoration and protection. Believing that we are poised for significant progress, we are committed to working with our many partners that share the common vision of a healthy, thriving ecosystem.

It is our hope that by working together we will see visible results in the near term and our progress will lead other regions and governments to undertake ecologically significant restorations of their own.

I thank the committee. I ask that my full statement be placed in the record and I am ready to answer any questions you have.

Senator GRAHAM. [assuming the chair] Thank you, Mr. Gibson. Senator Jeffords had to leave for another commitment and has asked me to chair the meeting in his absence.

Senator GRAHAM. Ms. Klee?

STATEMENT OF ANN KLEE, COUNSELOR TO THE SECRETARY OF THE INTERIOR AND CHAIR, SOUTH FLORIDA ECOSYSTEM RESTORATION TASK FORCE

Ms. KLEE. Good morning, Mr. Chairman and members of the committee. My name is Ann Klee. I serve as Counselor to the Secretary of the Interior, Gale Norton. I am also the chair of the South Florida Ecosystem Restoration Task Force, which is an inter-governmental entity that was established by Congress in the Water Resource Development Act of 1996 to coordinate the restoration of the south Florida ecosystem.

I am pleased to testify before the committee this morning and would like to recognize the committee's leadership and particularly the leadership of Senator Bob Smith to authorize the Comprehensive Everglades Restoration Plan in WRDA 2000.

Were it not for Senator Smith's leadership on this issue and the efforts of Senator Graham, we would not be here today heralding the first successful steps to restore this unique ecosystem.

The Department of Interior is committed to Everglades restoration. It remains one of our highest priorities. Our land management agencies, the Fish and Wildlife Service and the National Parks Service, manage 50 percent of the remaining Everglades. As such, they remain one of the primary beneficiaries of the restoration plan. The U.S. Geological Survey also provides important scientific expertise to support this effort.

At the beginning of this year the United States and the State of Florida executed a binding and enforceable agreement to ensure

that water captured by implementation of the CERP would be reserved by the State from consumptive use.

This agreement, signed by President Bush and Governor Jeb Bush, represents a significant and lasting step toward achieving the restoration goals and objectives of the CERP to restore natural flows for the environment as promised during this committee's deliberation over the comprehensive plan.

In addition, as you have heard from Mr. Brownlee, the programmatic regulations are well on their way toward completion. Key provisions of the draft regulations ensure a strong role for the Department of Interior and the restoration process involving the Department early in the project planning process and assigning shared responsibility for the development of interim goals.

We believe that the proposed rule does indeed define a collaborative partnership between the Federal, State and local agencies as envisioned in this committee's report.

In addition to efforts to implement WRDA 2000, the Department is actively implementing other actions to preserve and restore the Everglades ecosystem and recover endangered species. Let me highlight a few of the measures that we have taken in this past year. We have completed all land acquisition for the East Everglades expansion. We have reached an agreement in principle to acquire the mineral rights under the Big Cypress National Preserve, which will ensure long-term conservation of the western Everglades.

We have renewed a 50-year lease with the State of Florida for the Loxahatchee National Wildfire Refuge and dedicated an additional $1 million to accelerate the eradication of invasive exotics at the refuge.

We have entered into a Safe Harbor Agreement to enhance habitat for the Schaus swallowtail butterfly and we have designated a research natural area in Dry Tortugas National Park.

Equally important is our financial partnership with the South Florida Water Management District to acquire lands for Everglades restoration purposes. Land is the single biggest physical constraint to implementation of the CERP. Last year, the Department of Interior provided $12 million for key land acquisition projects.

Later this month, I expect Secretary Norton to approve an additional $15 million grant to the District for the purchase of high priority projects.

Finally, speaking as the chair of the South Florida Ecosystem Restoration Task Force, I would like to briefly describe how the Task Force is contributing to this restoration effort.

Most recently, the Task Force published its revised strategy for restoration of the South Florida ecosystem and biennial report to Congress. I am pleased to provide today copies of this document to the committee. The document updates information submitted by the task force in July of 2000 and describes the restoration and coordination efforts of the task force member entities.

During the last year, the Task Force provided a constructive forum to discuss many of the issues that are critical to Everglades restoration, including the development of the Corps' programmatic regulations, water quality issues, and sound science.

The Task Force provides an effective forum for candid discussions of differing views. It is my hope and the hope of the Secretary that the Task Force will continue to seek the views of all interested stakeholders on Everglades restoration and facilitate collaborative decisionmaking.

In closing, Mr. Chairman, I would like to respond briefly to the skeptics who question whether Everglades restoration can be achieved. We believe that it can and we believe that we are well positioned to succeed.

First of all, we have a high degree of collaboration among the State of Florida, the Federal Government and concerned citizens. We have venues including the Task Force and the South Florida Water Management District's Water Resources Advisory Committee to share ideas and to develop consensus-based restoration policies and resolve problems before they create insurmountable roadblocks to progress.

Second, we have developed the important legal assurances, including the binding assurances agreement and the programmatic regulations to guide our efforts to achieve Everglades restoration goals.

Third, we have made significant progress toward implementing specific project features. By acquiring the necessary lands for restoration, the State is undertaking efforts to improve water quality and we are protecting and restoring habitat for endangered species.

In the last decade alone, together with the State, we have made significant progress on the road to a renewed Everglades, indicating that we have the tools to achieve restoration success. We need to encourage and continue the dialog among all affected parties and the entities that wish to restore the Everglades. Working together we can and will achieve our Everglades restoration goals.

Mr. Chairman, that concludes my statement. Thank you for the opportunity to address the committee. I will be happy to answer any questions.

Senator GRAHAM. Thank you, Ms. Klee, Mr. Brownlee and Mr. Gibson. We have a vote underway with approximately 5 minutes left. So I am going to recess temporarily. We will try to reconvene in approximately 10 minutes.

[Recess.]

Senator GRAHAM. We will call the meeting to order. I would like to ask two questions to each of the members of our panel. First, what, in your estimation, will happen to the Everglades if no action is taken, if we were to rescind the restoration effort and let events take their course? What kind of Everglades are we likely to be experiencing 20 years from now?

Mr. BROWNLEE. I believe we can expect to see the health of the ecosystem in that area continue to decline. I think there would continue to be a decline in the population of the wading birds. The estuaries would continue to suffer. There would continue to be water problems and probably some water shortages would start to appear.

That would be my assessment, sir.

Ms. KLEE. Senator Graham, I agree with what Mr. Brownlee has said. I think what we would see over the next 20 years and beyond is the continued slow death of the Everglades.

Mr. GIBSON. I agree with what my colleagues said. Up north would see a monoculture of cattails and water quality problems throughout the glades and spread of invasives. It would not be the glades we know.

Senator GRAHAM. The second question is: What actions would you recommend that Congress needs to take in the near or the distant future to move this project of restoration forward?

Mr. BROWNLEE. Sir, I think the continuing support of committees like this is critical. The continued support to the program itself through the necessary authorization and appropriations for projects is vital to the health of it. Just to support the senior on this committee publicly, I think is very critical to the continuation of this program.

Senator GRAHAM. Ms. Klee.

Ms. KLEE. I would add to that, Senator, that the continued emphasis by this committee and others that this is a long-term project. It took us 50 years to see the effects and longer that we see today. It is going to take time to achieve full restoration and we need the patience and continued support of the Congress over the long haul.

Mr. GIBSON. Again, I agree and maybe a special focus from our perspective on some of the pilot projects and keeping the funding for those moving along so we can answer questions on wastewater reuse and on ASR, some of the technical questions that may or may not lead to permitting issues for the agency.

Senator GRAHAM. Mr. Brownlee, in your testimony you commented about the fact that there were areas of uncertainty in the plan, largely a function of the uniqueness of the project that you were undertaking. You mentioned several of the strategies that were being used including pilot projects to test out various technologies.

Could you indicate how that process is proceeding and what you anticipate to be the commencement and termination date of these projects that are currently in a pilot phase? When will you b at a point to determine whether to move to actually large scale implementation?

Mr. BROWNLEE. Sir, if it is OK with you I will provide the dates and all for the record, if that is OK. The pilot project is one part one way in which the Corps will work with others to prove the science required for these different areas.

We will also use independent scientific research and we will use adaptive management on these projects. As far as specifically how we do them, it varies with the project, but we will endeavor through these kinds of strategies to monitor these, to verify these technologies as we move ahead to be sure they work. Then we will go back and examine how they are working after we put them in. That is generally the way we plan to do it sir.

Senator GRAHAM. If you could supplement the record with a written report on those that are currently in some stage of review and when that review might be finished and assuming that the result is positive, how you will propose to move forward on that.

Mr. BROWNLEE. Sir, I might just mention one because the District Engineer down there is very proud of it. It is the Indian River Lagoon report which will be forwarded to this committee for au-

thorization. The significance of this is not only that it provides a way to reserve water when there is plenty of water and then release it when it is needed, but it was the result of a collaboration of a number of diverse interests that were able to be brought together in a very good way and come up with this report. So that will be coming up to the committee so that the committee can authorize it and we can proceed with it.

Senator GRAHAM. Good.

Mr. BROWNLEE. It is an irony of history that we hope to get that project authorized in the current WRDA bill so it would be effective for fiscal year 2003. The year 2003 is the 100th anniversary of the first National Wildlife Refuse being established. That was established in the Indian River Lagoon, Pelican Island.

So it would be very fitting if we could celebrate the 100th anniversary of that historic environmental event with clear evidence that we are committed to maintaining the quality of that same environment.

Senator GRAHAM. I know that the study is complete and hopefully it will be forwarded to you soon, sir.

Mr. BROWNLEE. You are probably learning more Florida history today than——

Senator GRAHAM. I was unfamiliar with some of that, sir, but it is nice to hear it.

Ms. Klee, there have been some concerns raised, including at this hearing today, about the issue of cost and how to give some assurance that we are going to keep this project within the original cost estimates.

Is that a subject that your task force is reviewing and if so, what steps are you going to take to monitor and hopefully avoid cost overruns?

Ms. KLEE. Senator, that is not an issue that the Task Force has addressed specifically at this point, although we are monitoring closely progress in terms of achieving the goals of the plan so that there is an oversight mechanism and accountability. But certainly that could be something that the Task Force could consider over time.

Senator GRAHAM. One of the provisions that Senator Voinovich was particularly interested in including was the standard Corps policy relative to cost overruns and that is if any component of the project gets to be more than 20 percent of its original estimate, then it has to come back to Congress for specific reauthorization.

I would hope that between the Corps and your task force you would be monitoring, hopefully to avoid, but if in fact that occurs, to do so.

Mr. Gibson, do you have any comments about what the role of EPA will be in the cost aspects of this project?

Mr. GIBSON. EPA's role will come on down the line. EPA is a permitting agency. We are providing technical assistance on issues like the ASR technology. If we can inject the so-called "raw water," surface water and shallow aquifer water directly into the underground strata without treatment, there could be considerable cost savings because I believe $500 million or so is budgeted for water treatment on ASR technology.

If a lot of treatment is necessary before we can inject that water, there might be some cost issues associated with that. That is why we are doing the pilot projects now, to build that base of knowledge, so we will know if we are going to have significant treatment needs for either wastewater or for ASR. Those answers will come in the coming years.

Mr. BROWNLEE. Senator Graham, I might add, sir, that the Corps is very sensitive to stay within the authorization levels set by the Congress. In fact, a little other bit of history, we look back and since 1986 of about 600 projects, the Corps has had to come back for additional authorization about 56 times of that. So it is a little less, it looks like, than 10 percent.

So we will be very sensitive to that. I anticipate that there will be cases when we will have to come back. We will, as usual, try to avoid those.

Senator GRAHAM. Are there any aspects of this project which, to date; have raised concerns about cost overruns?

Mr. BROWNLEE. Sir, I wouldn't identify one now. There are some, of course, that have been delayed recently, as you are well aware and any time we have delays in projects they are subject to overrun.

Senator GRAHAM. If you could give us for the record an indication of where those concerns that relate to delays in projects or for any other reason that you think should be on a monitor list for purposes of cost.

Senator GRAHAM. I mentioned in my opening statement that I had some concerns about the initiative draft of the programmatic regulations. Are these related to whether there should be interim goals or milestones along the route from where we are to our ultimate destination?

Second, what will be the role of the Department of Interior in the evaluation of this project as it goes forward and the restoration assurances regarding water supply which will be available for the natural system?

That last item is particularly important because the timing of the project, and this is a function of the engineering and ecology, is such that it will be toward the mid and later point of the process that the major water demands for the natural system are going to be met.

The concern is that if the water has been already allocated to other uses before you get to that point, there won't be an adequate amount for the natural system. So that was one of the reasons that this complex process was inserted into the legislation which Mr. Gibson had so much to do with its actually drafting.

I wonder if you could comment on those three issues of interim goals, Department of Interior and restoration assurances for the natural system.

Maybe Mr. Brownlee, then Ms. Klee and then Mr. Gibson.

Mr. BROWNLEE. Yes, the programmatic regulations do provide for the development of interim goals. Of course, as you know right now, the programmatic regulations are out for public comment. I expect that we will get some comments in that regard so there is a way to wrap those into the programmatic goals. I expect that we will do that.

The Department of Interior is very much involved in this and has been. I think it has been a very inclusive process from our point of view. I know that there are several points in the process where the Department of Interior's concurrence is required for us to move forward on some of these intermediate steps.

So the perception of the Corps is that it is very inclusive and they are very much involved and they are a very important partner on this and we rely on them greatly. I hope that is their perception also.

The committee mentioned in its legislation that they expected about an 80–20 breakdown of the water, 80 to the restoration and 20 for other purposes. I can only tell you that the programmatic regulations reflect and everything I have heard from the Corps indicates that the Army is committed to providing the amount of water required for restoration. We realize that that is the overarching goal. The Corps is headed that way. Whether or not it will be slightly above or slightly below 80 percent, I wouldn't state categorically.

But I would state very clearly that the Corps is committed to providing the amount of water required for restoration.

Senator GRAHAM. There was a rationale behind the 80–20 numbers that were inserted in the original legislation. I think it is important that the Corps be sensitive to that and if there is reason that 80–20 should not be, for planning purposes, a goal of water allocation, I would like to get a report back from the Corps as to why they think that those numbers are not appropriate.

Mr. BROWNLEE. This morning I would tell you, sir, they seem to be very appropriate. I am not suggesting in any way that they are not. I am only suggesting that I don't know if we will hit right on 80, but as a planning goal, I think they are perfectly appropriate.

Senator GRAHAM. Thank you.

Ms. Klee.

Ms. KLEE. Senator, we worked very closely with the Corps in developing the process for how interim goals would be addressed in the programmatic regulations and we are supportive of that approach.

What the programmatic regulations envision is that the Department of Interior and the State will actually jointly establish those interim goals with the Corps of Engineers. Because they are not included in this document, but rather will be developed over the next year, that will enable our scientists to take advantage of the latest and best available science.

Another additional change that was made that we feel is very positive is a very clear expression that the interim goals will not only be based on hydrologic indicators, but also ecological responses. Therefore, they will be an accurate and meaningful way for us to evaluate whether or not the restoration effort is achieving the restoration and ecosystem benefits that we anticipate.

So we are supportive of how the programmatic regulations address that issue.

With respect to the role of Interior, we also worked very closely with Corps to ensure that we would have the ability to ensure accountability for the restoration of natural resources in south Flor-

ida. We are a key player on RECOVER. In fact, we are a co-chair of four of the sub-teams and we are on the leadership team as well.

We have developed a very good collaborative relationship with the State, the District and the Corps, and feel that we will be able to play a very meaningful role there. Again, as Mr. Brownlee mentioned, we also have a concurrence role on the six guidance documents that will be developed to establish the more detailed framework for implementation of the CERP.

So, again we think on that issue that we will continue to play a very important role in implementing CERP down the road.

Mr. GIBSON. Again, I concur with my colleagues. I think the Army Corps did a very good job on the programmatics of incorporating interim goals and making sure the two principal trustees, the State of Florida and the Department of Interior have the same role in the development of the interim goals as they do on the programmatic themselves. It is all tied back together.

It is important that the programmatics are issued on time and the programmatics will be issued on time and also to give ourselves the time to develop the right interim goals. So I think the Corps has done a very good job there.

EPA's particular interest is water quality, not our only interest, but a large interest is in water quality. Again, the programmatics answer the mail on water quality. They put them where they belong as part of the project implementation reports, its requirement that the water quality issues be addressed in the PIR right up front.

As Ms. Klee mentioned, for the Interior Department, EPA is also a member of really important teams that are going to help develop the interim goals and monitor project progress. So we are strong supporters of the programmatics the Army Corps has developed. We think they are on the right track.

Senator GRAHAM. We are going to have to move on to the next panel. I want to express my appreciation for your very helpful contribution to the status of the project report today. Some of my colleagues, as well as myself, might wish to submit questions to you subsequently. I would hope that you would be able to respond to those should they been submitted.

Thank you very much for your contribution today.

Senator GRAHAM. Would the third panel please come forward? On our third panel, Chairman Billy Cypress of the Miccosukee Tribe of Indians was unavoidably unable to attend today. He will be represented by Mr. Dexter Lehtinen who is the General Counsel for the Miccosukee Indian Tribe. Mr. Lehtinen is here.

I will introduce the members of this panel and then call on them in the order in which they are introduced for their opening statement. First, Mr. David Struhs who is the Secretary of the Florida Department of Environmental Protection. Welcome, David.

Mr. Dexter Lehtinen representatives the Miccosukee Tribe of Indians. Thank you, Dexter.

Patricia A. Power, the Seminole Tribe of Florida. Thank you, Ms. Power.

Mr. Roman Gastesi who is the Water Resource Manager for Miami–Dade County. I understood there was a possibility that

Mayor Penelas might be with us today. If so, I wanted to recognize him.

Mr. GASTESI. Sir, he couldn't make it. He is very busy down in Miami right now.

Senator GRAHAM. We have a few other issues going on in Dade County.

Mr. GASTESI. Please don't ask me about those things.

Senator GRAHAM. I would not ask you. The Everglades is a relatively simple project compared to that.

Mr. Struhs?

STATEMENT OF DAVID STRUHS, SECRETARY, FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION

Mr. STRUHS. Thank you so much, Senator. It is a true honor to be here before you and representing our Governor Jeb Bush and the State of Florida, your full and equal partner in this endeavor.

I am delighted to be joined this morning by the chairman of the South Florida Water Management District, Ms. Trudi Williams who is right behind me here. Trudi and I come bearing news, we think actually some pretty amazing news.

Here we are only 18 months into a 30-year program and we have already acquired 75 percent of the land needed to build the ten authorized projects. Eighteen months into a 30-year project and we have secured a proven funding plan to pay our half of the multibillion dollar bill for the first decade of the program.

As has been mentioned earlier, we have already signed the legally binding agreement that requires Florida to reserve water for the environment before Federal dollars are released.

Just recently we have finally put in place and adopted the dispute resolution plan required in WRDA 2000 to make sure that problems are resolved quickly so this great progress is not interrupted.

The invitation you sent clearly said focus not just on this great progress, but also to focus on issues of process. I think that is very appropriate. There is, in fact, nothing conventional about the Everglades and that is certainly true when it comes to the process.

In Florida we are learning a whole new way of doing business, trying to figure out how we are going to better fit into established Federal procedures and at the same time the Federal agencies have been very cooperative working with us to figure out how they are going to be able to integrate themselves into our processes, recognizing that neither one of us can move forward without the other. That is a fascinating process for a student of government.

At this point the process that we have engaged in is having the Federal Government, the Federal agencies and the State of Florida developing the customs, the relationships and writing the rules that will make sure that what we describe as our full and equal partnership will in fact be practical and sustainable.

We are asking questions like how will the Corps of Engineers actually know when Florida legally reserves water for the environment? How will the Federal resource agencies at the Department of Interior actually be consulted to make sure that we are getting the ecological restoration we all want? And how do parties get involved in making those adaptive management decisions?

We all recognize that in the real world, and happily so, the most common answer to those questions is by picking up the phone or talking to each other because as partners in business do together, they make decisions by talking with one another. In fact, our goal is really nothing more or nothing less than just that.

As we set about writing rules, though, to prescribe that kind of behavior, I think we need to be mindful of two things. That is, and I think we are and the Corps certainly has exhibited this, you typically write rules not for the usual scenario, the common scenario where everybody agrees, but you write it for those exceptional situations where in fact there is a difference of opinion.

It is a daunting task because we all recognize it, in fact the thorniest problems of the future are the ones that we can't predict today. That is one of the reasons we are pleased that that dispute resolution agreement is now in place.

Second, while we are consumed right at the moment with this issue of integrating our laws and policies and decisionmaking processes, we can't let that distract us from the fact that never before have so many diverse interests across governments, across agencies been so committed to a common environmental goal.

We really give the Congress, particularly this committee, Senator Graham, the credit for accomplishing that. The Water Resource Development Act of 2000 clearly, clearly lays out the expectations that agencies must collaborate in decisionmaking.

The committee and the Senate and the House together also recognize in WRDA 2000 that ultimately, if you are going to have accountability that the ultimate decisionmaking authority needs to rest with a single agent, a single voice, one for the United States and one for the State of Florida.

We recognize, given some recent experiences that you are all familiar with that to do otherwise can actually put restoration at risk.

As it relates to the procedural regulations as proposed, it is clear that the Corps of Engineers has in a number of instances gone a little bit beyond what WRDA 2000 anticipated. For example, requiring the concurrence of two different Federal agencies on six different guidance memorandum, memorializing the predominant role of the Federal resource agencies over other interests in the RECOVER program and establishing things like the pre–CERP water baseline and actually getting that put into the programmatic regs.

Those things are slightly beyond what I think WRDA anticipated and yet we think that they were done for the right reasons and the State of Florida can in fact support the rule as it is currently proposed.

We would urge, however, that the Corps make no additional changes that might move the procedural regulations further away from what we think was the carefully balanced and well-considered WRDA 2000 statute.

In fact, when President Clinton signed that bill less than 2 years ago, all of us were there to cheer. I think in part what we are seeing now some almost 2 years later is a little bit of buyer's remorse. It is different interests looking backwards and suggesting, well, if only we could tweak the law or perhaps through regulation advance ideas that didn't quite make it into statute.

We would try to resist that because it could in fact lead to the unraveling of this very broad and diverse coalition of interests that made CERP possible to begin with.

I think it is important to remember that this is not the old-fashioned zero sum game of the world where we have winners and losers, that this restoration plan is different, it is holistic, provides water for both nature and people and it does so without artificially subsidizing water supplies.

The buzz words, "sustainable development" have been ill-defined for these last 10 years. This in fact may be the defining project as to what sustainable development really is all about. In fact, if you were to design a project exclusively for water supply in South Florida, it would look an awful lot like CERP.

If you were to design a project only for environmental restoration in South Florida, it would look an awful lot like CERP. In fact, it is in fact the same program. The very water that will re-hydrate the Everglades also replenish the well fields.

Most important, I think to this committee, this plan is built on an enforceable legal foundation. I know the way we like to think about it is while only half of the original Everglades ecosystem remains, the amount of rain that falls on South Florida is essentially unchanged. If you were to push all of that water into only half of what is left of the Everglades, you would actually drown it.

The restoration plan in CERP recognizes this. The water that is currently flushed out to sea via canals will be recaptured. It will be reserved to ensure the right quantity, timing and distribution to the ecosystem. But if you were to force all of the water into the Everglades it would clearly be too much of a good thing.

Finally, and the last point I would like to make as it relates to subsidizing water supplies, that is a charge against CERP that is wrong at several levels. We must remember, of course, that the Federal Government was in fact our full and equal partner generations ago when we began draining and destroying the Everglades. The fact that the Federal Government today is still a full and equal partner in fixing the problem in no way represents a Federal subsidy for water supply. It is just fixing a problem.

Second, Florida's plan for funding our half of the project, and we are proud of the way we have done it with smart money management and without raising taxes. But nonetheless, it is based on a proven funding plan that allows growth, actually allows growth to pay for the environmental restoration, not the other way around.

Finally, the restoration plan is all about capturing water that today is artificially lost to the sea and putting it back into the Everglades ecosystem. The plan clearly does not subsidize the infrastructure costs, the pumps, the pipes, the treatment facilities that make up the water supply service. Those costs appropriately will be and should be borne by the water consumer.

Finally, the Comprehensive Everglades Restoration Plan that was passed out of this committee is in fact the defining environmental legacy of our generation and we recognize that. As your partner, please understand Florida's commitment to assuring that the plan in fact remains comprehensive, that it remains about restoration, we think we have that common goal.

Thank you very much. I look forward to your questions.

Senator GRAHAM. Thank you, David.
Mr. Lehtinen?

STATEMENT OF DEXTER LEHTINEN, ESQUIRE, GENERAL COUNSEL, MICCOSUKEE TRIBE, MIAMI, FLORIDA

Mr. LEHTINEN. Thank you, Mr. Chairman.

Senator and committee members, Miccosukee Tribe members—who are the only people to live in the Everglades and have adopted Clean Water Act water quality standards for the Everglades—want to emphasize that Everglades restoration needs to go forward despite what criticisms we have of immediate implementation.

The priority should be on keeping the congressional commitment for restoration. WRDA 2000 was a quality, positive act, but the tribe does have problems with implementation since that time. Consider, for example, that in the last year alone on four different occasions in four different cases Federal courts have found government action in the Everglades to be unlawful. For example, in February 2002, a Federal court found that the Corps of Engineers had acted arbitrarily and capriciously on this interim operational plan for the Cape Sable Seaside Sparrow on some provide years.

We think inherent in the future the Cape Sable Seaside Sparrow issues are the same problems that were found then. Also, in just this month the Federal court found, the Court of Appeals, that the Southern Everglades Restoration Alliance, which is a methodology of Federal and State agencies meeting to reach agreement on some Everglades issues was an illegal approach and in violation of the Federal Advisory Committee Act.

This is relevant to the future because some of those decisions are still having reverberations now, but particularly recover in the programmatic regulations, we think, is subject to the same problem of unlawful delegation and improper policymaking that the Court of Appeals found this month.

In July 2002 a Federal District Court found that the Corps of Engineers was not following the law with respect to implementation of the Mod Water Deliveries Act. In February 2002, the Court of Appeals upheld a District Court finding that the State of Florida was illegally polluting the Everglades under Clean Water Act. That is the S–9 structure case, a Clean Water Act case.

Now, one of those, of course, the Senate has taken action to "correct" that, but the tribe believes that action the Senate took last week to authorize the deviation from the existing modified water delivery law by the Corps simply sends the Corps the message. Whatever the merits, it sends the Corps the message that when you disregard the law for year after year after year there will be no consequence. Generally there is no consequence to any court finding government agency action to be illegal.

Of particular importance is this interim operational plan in which we find agencies no longer committed to getting the water right. CERP hypothesizes that if you get water quality and water quantity right that you will restore the Everglades, getting the water right.

Instead, and our charts are attached to the written testimony, which I guess should now be submitted in my name, show that as we all know the central and south Florida plan had north of

Tamiami Trail increased water levels beyond natural level. That was a bad thing.

South of Tamiami Trail, because of the blockage of the road, water levels in the western Everglades were below the natural levels. Our goal is to get them back to the natural levels. But future plans tomorrow, the Federal Government intends to move water levels north of Tamiami Trail even higher further away from natural levels than C&SF.

South of the trail, even lower than the C&SF project had pushed them, even further away from the natural system model. This is, of course, so far away from our stated goals that the Fish and Wildlife Service has degenerated to saying that the natural system model on which the entire CERP plan is based can't be relied on when they don't like it. It can be relied on for most of the Everglades, but where their action is found to be moving away from restoration, then they say, well, let's disregard natural system model then.

The problem the public will have with this is how can we ever control agencies if they are able to say, well, our goal with respect to a particular sub-species or our less than restoration goal, whether mandated by some law, the ESA, Endangered Species Act or not, but that their goal for some reason takes them away from natural levels, then the public and the tribe can have no confidence in those natural levels.

One other thing, Judge Hubler, in a Federal case in Florida, not one of those I have listed so far, is holding hearings next week on the problems that may exist with respect to whether the State can actually reach its long-term deadlines of 2006 with respect to water quality. Those are considered to be pre–CERP goals that are assumed to be in place under CERP.

In conclusion then, the tribe feels that we need to have tough love in the Everglades. We need to be committed to the right water level and the right quality and other biological conditions in the Everglades will follow from water level, hydroperiod restoration and water quality restoration.

If we deviate from hydroperiod and water quality for short term sub-goals, then we will never get back to a hydroperiod in water quality. If somebody likes the unnatural conditions because the unnatural conditions are better for some species or some bird than natural, when you restore natural conditions, something that likes the unnatural conditions better will have to have some adjustments.

So the tribe urges us to go to natural levels and natural quality and stick with those even if along the way there are a few short-term so-called negative consequences on some biological indicators.

Thank you.

Senator GRAHAM. Thank you very much.

Ms. Power?

STATEMENT OF PATRICIA A. POWER, SEMINOLE TRIBE OF FLORIDA

Ms. POWER. Good morning, Senator Graham, Senator Voinovich. It is an honor to be here this morning to talk with you about Everglades restoration on behalf of the Seminole Tribe of Florida.

We applaud the committee for bringing together a representative group of stakeholders to update you on CERP implementation. A consensus-based, balanced approach to CERP implementation will create the best prospect for successful restoration of the natural system while maintaining stability in flood control and water supply for south Florida.

At the critical project groundbreaking ceremony on the Big Cypress Reservation this past January ribal leaders expressed their concerns about the current condition of the land and the water on the reservations, especially as compared to what they recalled from childhood. They spoke of the cypress and saw grass, rains and fires and wide open skies.

They also spoke of the hardships caused by flooding and unreliable water supply. While acknowledging the tradeoffs, they cautioned against losing any more of their environmental culture and applauded restoration activities. Without CERP, as modified through the adaptive management process over the years, the tribe believes that the ecosystem will not be able to support either the natural or the built system.

The tribe views the natural and built systems as intricately linked. As CERP projects are constructed and become operational the pressure from the built system on the natural system will be reduced.

The tribe's greatest concern about CERP implementation is that it is done with balance. Lack of balance is the cause of the problems that CERP is directed to correct. The C&SF Project so efficiently met its goals of flood protection and water supply that it created an environmental crisis.

As damage to the natural environment became evident, all entities began to recognize the interdependence of the natural system and the built environment. CERP acknowledges that while restoration of the environment is paramount, the other related water needs of the region as addressed by the C&SF project must be provided for as well.

The success of CERP implementation to date results from the emphasis on obtaining input from a wide array of stakeholders and recognizing the importance of addressing natural and human water needs in a balanced way.

Keeping all stakeholders committed to CERP will require careful project sequencing to guarantee that the benefits of the projects are equitably distributed over time and space, while ensuring that measurable benefits are produced in a reasonable time period.

Careful scientific analysis completed through adaptive assessment will need to support well-informed policy decisions to accomplish productive adaptive management, all of which requires active participation by a broad cross-section of stakeholders.

Modeling efforts as the basis for both prospective planning and retrospective monitoring and analysis must reflect that all components of the ecosystem, the natural system and the built environment are interdependent.

The pace of both the Federal and State funding along with the tribe's funding on the Big Cypress Critical Project, the execution of the historic President–Governor agreement guaranteeing benefits to the natural system and the proposed programmatic regulations

all indicate good process toward the end goals of CERP, in the tribe's opinion.

The tribe notes the Corps' exemplary outreach efforts while developing the programmatic regulations. The Corps, along with the Task Force and the Department of Interior, worked very hard to ensure that the tribe had ample notice and opportunity to review, discuss and comment on the regulations.

The tribe believes that it is critically important to clearly define policy versus technical decisions and to clearly assign responsibility and accountability for each.

It is crucial also that the policy level consensus building be conducted in public with input from the public. For example, the project delivery teams, with the assistance of RECOVER, will formulate project alternatives to be selected for the PIR. The tribe believes that selecting the final alternative is a policy level decision. Therefore, the tribe recommends that the Task Force review the alternatives and make a recommendation to the project's managers.

The tribe further believes that the regulations must address the issue of source switching as mandated by WRDA 2000. This requirement is unique to CERP and there is no historic counterpart in Florida law to guide how this process will occur. As a result, this issue has the potential to become a roadblock to CERP implementation until clear guiding principles for developing how and when the source switching will take place are established.

While it may be too early in CERP implementation to define this process, at a minimum the regulations need to provide a framework for determining what constitutes an existing legal source. The tribe is working on language to be submitted to the Corps on this issue.

Finally, the tribe supports the Corps setting interim goals in the regulation for restoration benefits and targets for other water-related goals. We urge that these measures, while analyzed separately, be done with similar procedures and weight. This is crucial if we are to maintain the balance that is so important to a successful CERP implementation.

Thank you for listening to the concerns of the Seminole Tribe of Florida. I would be happy to answer any questions.

Senator GRAHAM. Thank you, Ms. Power.

Mr. Gastesi?

STATEMENT OF ROMAN GASTESI, FEDERAL COORDINATOR, MIAMI–DADE COUNTY, OFFICE OF THE COUNTY MANAGER, MIAMI, FLORIDA

Mr. GASTESI. Mr. Chair, member of the committee, thank you for the opportunity to comment on the CERP, especially, Senator Graham, for your diligence and passionate work on the Everglades has helped make the CERP a reality.

Miami–Dade County would like to also recognize the efforts of this committee and of the South Florida Ecosystem Restoration Task Force for its coordination of the facilitation role.

My name is Roman Gastesi and I am the Water Resources Manager for Miami–Dade County and also a member of the South Florida Ecosystem Restoration Task Force, as a working group member.

Miami–Dade County is strongly committed to the CERP, so committed that Mayor Alex Penelas and County Manager Steve Shiver established the Office of Water Management in the County Manager's Office to ensure that the county's active participation and dedication of resources to the plan's implementation.

The county recognizes that preserving the delicate balance between our environment, the urban areas and the agriculture is critical to all of south Florida. The long-term success of CERP relies on all interested parties working together within a comprehensive and inclusive process.

The region consists of 16 counties, 150 municipalities, two Indian tribes, a multitude of State and Federal agencies, public and private utilities and agricultural and environmental interests.

The county acknowledges the need to work together, coordinate efforts and come to a reasonable compromise to ensure that this vitally important project becomes a reality. Our policy body, the Board of Country Commissioners, has consistently expressed its commitment to the Everglades. For example, on November 20, 2001, the Commissioners approved a resolution recognizing that protecting and restoring, and I will quote, "The valuable, unique, irreplaceable resources of the Everglades" is in the best interests of the county and reaffirmed Miami–Dade Country's commitment to work in partnership with the Federal Government, the State of Florida and all other public and private interests.

The county supports the fundamental concept of adaptive management which has been adopted for the implementation of this plan as part of an effort to achieve a balance of benefits as restoration progresses. Finding this balance while implementing the plan is the biggest challenge.

Some of the restoration efforts, including increased canal and groundwater levels have the potential to negatively impact flood protection. Conversely, some flood mitigation projects, including lowering canal and groundwater levels, have the potential to negatively impact the health of our natural systems.

Using the adaptive management approach will allow for continuous refinements as the CERP progresses. We are very encouraged by the progress made in recent years and have submitted written comments. I won't list them all, just in the interest of time.

But we are especially encouraged by the work of the Army Corps of Engineers in providing early outlines and initial draft of the programmatic regs to ensure stakeholder participation. As this comment period for the proposed regulations draws to a close, the Corps continues to provide presentations on the subject at numerous meetings. In fact, they were in Miami this past Tuesday.

While we continue to evaluate the proposed rule, the effort to address stakeholder concerns is obvious. We really appreciate that.

Miami–Dade County is currently embarking on a landmark watershed plan that will utilize innovative land use tools in the final, undeveloped frontier of South Miami–Dade County, to ensure successful implementation of water management operations and capital improvements to be carried out through CERP.

In closing, although some of the critics may focus on uncertainties and delays, we do not believe these are reasons to abandon our commitment to preserving and restoring this national treasure. We

must not succumb to the will of the nay-sayers. Nobody said it was going to be easy.

Instead of dwelling on problems, we must maintain patience and courage to work through the challenges and come up with solutions. The consequences of not moving forward are great. We simply must continue to work together and move forward. The health of the natural system is directly linked to the health of the people and the ecosystem of Florida and the Nation.

Thank you.

Senator GRAHAM. Thank you very much, sir.

We will have a 5-minute questioning period.

Mr. Struhs, I am concerned about the process which will be used or could be used to modify a water reservation after it has become part of a congressional authorization.

Could you describe the circumstances under which you would anticipate that such a modification would be required?

Mr. STRUHS. I can. I can imagine a situation in which a component of CERP, a particular project in CERP is constructed and as the water needs are identified in the PIR, the State would then reserve the water at the required amount that would then be mutually agreed upon through the PCA process. The project would be built and indeed the water would be delivered as designed to the natural system.

I could imagine a situation then where some years later, as other project components were to come on line, you would find other and better sources of water to meet a particular environmental, ecological need. As the new sources of water became available in the future, you would specifically want to back out of some of the water that was first reserved in the earlier completed project. That would be one scenario in which the adjustment of reservations could be an important part of actually achieving our restoration objectives.

I think some of the concerns that surround this issue, though, frankly, are not related to the example that I just gave but are really more a fear of what happens if a future generation were to walk away from the ultimate restoration objectives of what you have all put into Federal law.

We share that concern, but we are confident. We are confident that the way the law is constructed both at the State and Federal level, as well as the programmatic regulations as proposed before you today, actually put in plenty of safeguards to make sure that the reservations would never be changed in the future to the point where they would undermine or dilute the objectives of CERP.

The programmatic regs as proposed allow changes to water reservations as identified in the PIRs only if mutually agreed upon by both the State and Federal Government. Obviously, the reservation process is one that is governed by State law, but as you know, having been Governor of our State, there are multiple points of entry for public review and challenge within the Florida law context.

Above and beyond that, Congress obviously has multiple means of ensuring that the reservations are both adequate and that they are lasting for perpetuity. Clearly, the ability of the Congress to affect this through future authorizations and project components and future appropriations is very meaningful.

The other thing I would point out is that the commitment to the 50–50 cost share on operation and maintenance is an ongoing future appropriations process by which the Federal Government and the Congress in particular, would have a specific controlling link, as well as other legislative direction that you can routinely provide the Corps through the normal budget process.

The upfront agreement signed by the President and Governor is a lasting, enforceable agreement in Federal court. I guess that is the final and ultimate backstop, that if anybody in the future were to suggest that some alternation to a reservation well into the future diluted or minimized the project's authorized purpose, ultimately that could be pursued in Federal court.

So I think for those who are concerned about the worst case analysis, I think the fears are a little bit overwrought. I think the more practical effects are the ones that I described earlier, which is minor adjustments to reservations to make sure that in fact the system is being optimized to best achieve our restoration goals.

Senator GRAHAM. Thank you, David.

I only have a few seconds left, so I am going to ask my final question to Mr. Gastesi.

What role do you see the county playing in implementing the 6–D alternative which Mr. Lehtinen referred to in his comments for the eight and a half square mile area?

Mr. GASTESI. Sir, recently we passed a resolution, frankly, putting $2 million on the table for the willing seller program, trying to get folks in the mitigation area. That is the area between the two levies that want to be bought out, to have some money on the table.

The idea was to put $2 million and the district would also match that for an additional $2 million and then the Federal Government was going to match the $4 for a total of $8 million. We found some dollars for that purpose.

Senator GRAHAM. My 5 minutes is up.

Senator Voinovich?

Senator VOINOVICH. Thank you, Mr. Chairman.

Mr. Struhs, welcome.

Mr. STRUHS. Thank you, Senator.

Senator VOINOVICH. Your testimony states that the relationship between the Federal Government and Florida is very important. What challenges have arisen in Florida's efforts to ensure that type of collaboration? I am really interested in, are there some areas, do you think, where that relationship can be improved?

Mr. STRUHS. Yes, sir. I have to tell you that the relationships that already existed and have only grown and expanded these last 18 months have continued to delight all of us. We have had extraordinary collaborative partnerships with all the Federal agencies and really don't have a single complaint.

To the extent I would express some reservation looking forward, it would be that we not become so focused on anticipating every potential problem that might ever arise in the future over the next 30 years, that we get so tied up writing detailed proscriptive, very specific rules, that that process in and of itself could become the distraction from what we all agree in the end we need to accomplish. I think that is just going to require leadership from the top

and obvious leadership from this committee. Our guidance to ourselves to make sure we stay on the right track is to always go back to the landmark legislation that you all were so instrumental in passing and ultimately was enacted by President Clinton.

I think as long as we return to those instructions we will do well.

Senator VOINOVICH. Do you think that the regulations they proposed are a little too proscriptive and might lead to what you are talking about?

Mr. STRUHS. The State of Florida is happy and supportive of the procedural regulations as currently proposed by the Army Corps of Engineers. We identified not in the testimony some examples where I think they perhaps went a bit further in being more inclusive and more expansive than might have been originally anticipated in WRDA. But again, we think they did that for all the right reasons and the intentions were good.

The fact of the matter is that on the ground, at the working level, it is working well. So we are comfortable with the approach they have taken. We just urge that no sort of additional excursions be built into the regs that might move us far afield from what we think was a very well-balanced, well-written piece of legislation.

Senator VOINOVICH. You are talking about the fact that you acquired 75 percent of the land. Has the Federal participation in that been what it should be?

Mr. STRUHS. Yes, sir.

Senator VOINOVICH. I know that somebody mentioned another $15 million that has been earmarked is going to be that will help you get the rest of that land.

Mr. STRUHS. Yes, sir. We are very pleased with the way that partnership is working. Obviously, as is typically the case with this type of project, the upfront burden of the land acquisition for the footprints that are required for a project generally rest with the local sponsor. And in fact that is the case in Florida.

But the assistance and support we have gotten from all the Federal agencies has been just exceptional. I would just clarify for the record, Senator, that the 75 percent acquisition achievement is for the ten projects that have been authorized.

Senator VOINOVICH. The last one is that I would like to know about efforts that you are making to make sure that there is no further degradation of the Everglades, that you have a plan in place to make sure that the problem as you are restoring it there are other areas that seem to be, you know, deteriorating. Does the State have a plan on that?

Mr. STRUHS. Deterioration in the——

Senator VOINOVICH. Just to make sure that in terms of land use planning that you are not—in terms of development—that you are trying to make sure that there isn't any further encroachment on the area.

Mr. STRUHS. We are. Obviously, the earlier question, I think, gets to the heart of it, which is recognizing that we need to move quickly to acquire the lands that are going to be necessary for this project. The development pressures in some areas are intense. Getting there first where the land is still affordable at a reasonable price and locking it up for the long-term restoration plan is in fact our goal.

The other thing I would point out, Senator, is that in terms of the issue of degradation one of the things that is not necessarily a part of this discussion here, but I think is very important and related, is the issue of water quality.

What we have done is gone to extraordinary efforts to make sure that our regulatory responsibilities under the Clean Water Act and the ancillary State water quality laws is being integrated and incorporated into the construction and land buying process as well so that we don't just have a construction project and a land acquisition project and a water quality project operating on separate paths, but in fact that they are integrated and move forward together. I think that has been an important part of our success.

Senator GRAHAM. Thank you, Senator. As I indicated to the previous panel, there may be questions from our colleagues or Senator Voinovich or I wish to submit. If we do so, I would appreciate your response.

Thank you very much for your contribution to our hearing.

Would the final panel please come forward? The next panel will be Ms. Mary Ann Gosa, the Assistant Director of Government Affairs for the Florida Farm Bureau and Ms. Shannon Estenoz, the Director of the World Wildlife Fund.

In the order on the introduction, Ms. Gosa?

STATEMENT OF MARY ANN GOSA, ASSISTANT DIRECTOR OF GOVERNMENT AFFAIRS, FLORIDA FARM BUREAU, GAINESVILLE, FLORIDA

Ms. GOSA. Good morning.

Senator GRAHAM. Good morning.

Ms. GOSA. I am Mary Ann Gosa. I am with Florida Farm Bureau. We are a general farm organization and we represent all commodities throughout the State. We have 146,000 member-families and on their behalf I really appreciate the opportunity to come and talk with you today.

Let me start by saying that the progress and the success of the CERP, Comprehensive Everglades Restoration Plan, is essential, not only to the Everglades, but also to our millions of residents and, of course, agriculture. For our farmers, it is their land, it is their water and their financial resources that are at stake.

Without the additional water provided by CERP projects, the future of our ecosystems, water for domestic purposes and agriculture's ability to survive is uncertain at best. We have been involved in these issues since the development of this plan began. We have found the Corps' public process to be open and accessible and provided an opportunity for all who are interested to provide input.

As a result, we feel that WRDA 2000 is sound, it is implementable, and we continue to support it now just as strongly as we did in 2000.

However, our support of this legislation is accompanied by a few concerns with its implementation. In the interest of time I am only going to touch on a few of these. My written statement includes others.

A fundamental requirement in the CERP authorization is that the planning of future components is to addressed ecological and economic water uses in the region in a balanced way. For the plan

to continue to maintain the broad political support, this principle must be honored throughout implementation.

Now, one of the major milestones in the implementation of CERP will be the publication of programmatic regulations. Congress clearly and explicitly limited programmatic regulations to process matters. The Corps of Engineers has followed Congress's intent.

The most important process, in our view, is the one that will guide plan formulation for CERP components. Success of CERP depends on a systematic planning process that will ensure the components are cost effective and produce benefits as they are completed.

Also, the matter of how interim goals should be addressed has been a contentious one. We believe that interim goals should flow from the plan formulation process. We are concerned that any process that attempts to establish these interim goals in advance of the feasibility studies may drive development of project components that are not cost effective.

The proposed programmatic regulations outline a process for establishing targets for evaluating progress toward achieving other water-related needs. Such targets are important to ensure that the balanced purposes of this plan are met and to assure full accountability during implementation.

We also commend the Corps for responding to our concerns in that area.

Now, I want to make one final comment and this is with regard to the role of the Department of Interior. The agriculture community support the CERP as a project to be implemented under the Civil Works Program under the Department of the Army.

Authority and responsibility must rest with the Secretary of the Army and their local partner, the South Florida Water Management District. Any diffusion of that responsibility weakens accountability and creates a potential for indecision and delay.

In summary, Title VI of WRDA 2000 is well-constructed legislation. It provides a framework for the responsible implementation of the Comprehensive Everglades Restoration Plan. The agencies should continue to proceed with the WRDA 2000 charter.

We pledge our continued support and willingness to work with all the stakeholders to ensure that all of south Florida's water needs are met in a timely and cost effective manner.

Thank you. I will be glad to answer questions at the appropriate time.

Senator GRAHAM. Thank you.

Ms. Estenoz?

STATEMENT OF SHANNON ESTENOZ, DIRECTOR, WORLD WILDLIFE FUND

Ms. ESTENOZ. Good morning. Mr. Chairman, Senator Voinovich, my name is Shannon Estenoz and I am the Director of World Wildlife Fund's Everglades Program. I am also the National Co-chair of the Everglades Coalition.

I want to thank the committee for the opportunity to address you today. I am pleased and proud to say that I do so on behalf of a unified Everglades conservation community. I want to thank the committee for its keen interest in this ecosystem and its restoration.

In particular, I want to thank Senator Bob Graham for his leadership, Senator Bob Smith for the extraordinary leadership he has shown in moving this forward. Thank you to Senator Voinovich for his leadership as subcommittee chairman.

I would be remiss if I didn't recognize the extraordinary work of the staff, the EPW staff in moving this project forward and to thank them for it.

Mr. Chairman, the environmental community is unified in its support of a CERP implementation process that is consistent with the spirit and letter of WRDA 2000. the uncertainties associated with CERP that we have heard so much about in recent months and to which Senator Inhofe referred are not new. They are not new concerns. They are the same uncertainties that faced us in 1999 and in 2000. they are the same ones that we are convinced can be overcome as implementation moves forward.

Uncertainties need not prevent us from acting to save the Everglades. We believed that in 1999 and we believe it today. Restoring the Everglades with CERP doesn't take miracles. It takes leadership and it takes clarity of purpose. Fortunately, this committee provided that leadership and clarity when it crafted WRDA 2000.

WRDA 2000 provides the implementing agencies the tools necessary to overcome uncertainty and restore the Everglades. It is now up to the agencies to implement those tools accordingly.

The assurances provisions of WRDA 2000 are intended to ensure that the goals and purposes of the plan are achieved. The cornerstone of those assurances is the programmatic regulations. Now the programmatic regulations are intended to bridge the gap between congressional intent and the day-to-day detailed implementation of CERP.

But they are so much more than implementing regulations because they have the singular role to ensure that the Federal interest in this project is protected, protected in the face of conflicting priorities, scientific uncertainty and the need to continuously improve the plan.

Now, unfortunately, the draft programmatic regulations don't succeed in this most fundamental respect. We believe they need to be substantially improved if they are to truly ensure that restoration benefits will be achieved. Now, we have identified four principles that must be reflected in the programmatic regs but aren't currently adequately reflected in the draft.

First, the programmatic regulations don't implement the most fundamental requirement of WRDA 2000 to which Senator Voinovich referred in his opening remarks and that is that the overarching purpose of CERP is restoration. For example, the draft regulations introduce a new concept of water supply targets, but they don't prioritize between them and interim restoration goals in cases where those two come into conflict.

Now, regulatory silence on this fundamental issue will leave CERP exposed to shifting priorities, shifting expectations in much the same way that the Modified Water Deliveries Project and the C–111 Projects are exposed today.

Second, the draft regulations don't establish interim goals. Now, they do establish a process for developing interim goals, but these

will reside in an outside inter-agency agreement and not in the regulations themselves.

We believe that the standard by which these regulations should be judged is whether or not they ensure the protection of the natural system and that the goals and objectives of the plan will be reached. That is the standard we should judge them by. We shouldn't subject these regulations to an arbitrary rhetorical argument about substance or process. We should judge them by the standard that is in the law itself.

We believe that these regulations can't ensure the protection of the natural system unless they contain interim goals.

The draft regulation is not at all clear that the Corps is still committed to the 80 percent commitment of new water to the natural system. That broad planning goal needs to be restored to the regulations.

Additionally, the Corps has tied the initiative set of interim goals to the 1999 modeling performance which we all know needs to be improved for the central and southern Everglades. In fact, the Corps demonstrated as far back as May in 1999 that that can be improved and at least that level of improvement should be reflected in the initial set of goals.

Third, WRDA 2000 created a new role for the Department of Interior, a new concurrence role over the contents of the programmatic regulations. Yet the draft regulations only require the Corps and the district to give good faith consideration to this concurrence and allow the Corps and the district to act despite nonconcurrence.

We see this approach as not much more than the consulting role that Interior already has. Then in addition, the draft regulations elevate the role of the local sponsor to a role of leadership over issues that the statute clearly gives sole authority to the Secretary of the Army.

Fourth and finally, the statute calls for the establishment of a science review panel and it requires that that panel submit a biennial report to the Congress. The deadline for the first report is approaching us, December 2002, and the panel hasn't been established yet.

Furthermore, the programmatic regs need to specify how should the agencies in RECOVER interact with this panel. It standard give the panel a role in scientific dispute resolution and adaptive management.

Mr. Chairman, the environmental committee is anxious, anxious to witness on-the-ground results in Everglades restoration. We look forward to seeing important projects like water preserve areas, Southern Golden Gate Estates, and in particular, the Indian River Lagoon feasibility study move forward at the earliest opportunity. We look forward to supporting an implementation process that gives assurances that restoration benefits will be achieved. We are concerns because the drafting process for the regulations hasn't gotten us there yet. It hasn't provided those assurances.

We ask that this committee be engaged so that the Federal interest in this project will be protected.

Thank you so much for this opportunity to present the Coalition, the Foundation and the Trust's views on these important issues. Thank you.

Senator GRAHAM. Thank you.

Each of you commented on the role of the Department of Interior from somewhat different perspectives. Ms. Klee, in response to a question I asked her, outlined what her senses was of the role of the Department of Interior.

I wonder if you could comment as to whether you are satisfied, dissatisfied and would have recommendations for changes in Ms. Klee's description of the current role of the Department of Interior?

Ms. Gosa?

Ms. GOSA. Before I could answer that, can you just remind me what Ms. Klee's recommendations were?

Senator GRAHAM. Well, I think she said, among other things, that the department had a position on most of the committees under her task force which had key decisionmaking and was a partner in what I believe she described as the management committee. What had at one point been requested, which was that the Corps have a more decisive role in specific decisionmaking on individual projects, the department does not have.

She expressed satisfaction with the role that they currently occupy. Maybe you might want to reserve an answer to this question until you can see the transcript of what she said and then respond in writing.

Ms. GOSA. That would be good, Senator, because I am not comfortable in responding to Ms. Klee's recommendations.

The one thing I do want to say is that as far as Interior's role, we think when you are driving a plan as complicated as this you really need to make the decisions. The decisionmaking, if you cloud it up with too many bosses, then you have potential for delay and indecision.

I think the State needs a head and the Federal Government needs a head. They have the court. They have the district and I think any time we add additional people into that final decisionmaking, then, you know, like I said before, we could cause more problems and delay.

Senator GRAHAM. Ms. Estenoz, we will supply you as well with a transcript of what Ms. Klee said. If you would like to supplement whatever you are about to say with the written comments, we will appreciate it.

Ms. ESTENOZ. I certainly would. I appreciate that opportunity, Senator Graham. I think our response would be that we supported WRDA 2000 and we supported the roles that were constructed for the agencies in WRDA 2000, and in fact when this bill moved from the Senate to the House, the House further clarified that role by specifically restricting concurrence for Interior to a very specific set of types of issues that they could have concurrence over, in making it very clear that the Corps is ultimately accountable for carrying out the implementation of specific projects and that Interior clearly does not have concurrence over those kinds of project-specific issues.

The programmatic regs, you know, both the devil and the promise are in the details. In our view the programmatic regs don't ade-

quately reflect the structure that was actually established in the statute.

I will just conclude by saying that if the Corps and the Water Management District can disregard the concurrence of Interior over even the set of issues that the statute clearly gives concurrence authority over, if it can just give that concurrence good faith consideration and then discard it, we don't believe that that is true to the structure that the statute establishes.

Senator GRAHAM. Both of you represent organizations of citizens who have interest in the Everglades. What is your evaluation of the degree to which you have been able to access the process? How open has it been to hear from you? How responsive to your concerns has the process, and that process includes all the agencies of government from the State of Florida to the Corps to the South Florida Water Management District to the Department of Interior which has some role in this?

Ms. Estenoz and then Ms. Gosa.

Ms. ESTENOZ. Yes, Mr. Chairman. The process has been, I think, extremely accessible. I certainly feel in some ways that I see these folks sitting behind me more often than I see my husband and my son. We spend a lot of time together. The Corps has always had a very open door process as far as we are concerned.

The challenge for all of us, not just government, but NGO's and other stakeholders, is to reach out to those members of our communities that aren't professionals and don't work on this 100 percent of the time and find a way to describe these very complex issues to those folks.

That shouldn't be the sole responsibility of government in my view. My organization needs to find a way to communicate with our members and Ms. Gosa's organization needs to find a way to communicate effectively with hers. We are committed to helping government do that.

Ms. GOSA. I would have to agree with Ms. Estenoz. I think this process has been very open. We have had a lot of access. We have had a lot of input. We have seen results in many cases.

Not that I have been involved in a lot of these process, but, you know, on the Corps level and so forth, but the use of the Web sites and you know, being able to pull up information instead of waiting on the snail mail and, you know, there have just been a lot of innovative things that have been added to this process that have been very helpful and helped us in being able to participate in the process and provide our views and concerns.

Senator GRAHAM. I would like to take this opportunity, through the two of you, to compliment the large number of non-governmental organizations such as the two that you represent which have been so constructive in developing this legislation, seeing it through the enactment and now your continued interest as it moves into implementation.

The chances of achieving our goal are very much enhanced by the level of involvement that you have demonstrated. To Ms. Estenoz, you may have heard earlier that I extended an invitation to everybody, including everybody who is here, to participate in next winter's Everglades Conference. I know you will be chairing

that conference. I hope I didn't overstep my boundaries, but I think the conference has served as an important opportunity.

In fact, Senator Voinovich attended the conference. As he indicated, it was held in Naples. It has been a good opportunity for people who are interested in the Everglades from a variety of perspectives to share their views and become better informed and motivated to take necessary action. So I hope you won't mind if you have a few more guests this year.

Ms. ESTENOZ. Senator Graham, we would be absolutely delighted to host every single member of this committee at the 18th annual conference in January. Senator Voinovich, you can bring Ohio weather if you like. We actually appreciate it by that time in January.

Senator VOINOVICH. When is it in January?

Ms. ESTENOZ. It is the week of January 9th. It is Thursday, Friday and Saturday. We would be delighted to have you.

Senator VOINOVICH. Where is it being held?

Ms. ESTENOZ. It is in Del Ray Beach. It is on the ocean. We can arrange an ocean-front room, sir, if you like.

Senator VOINOVICH. Del Ray is where we spent our honeymoon 40 years ago.

Senator GRAHAM. I think Ms. Voinovich ought to come, too.

Ms. ESTENOZ. Yes. We know that the Everglades is its own best advocate. So we would be delighted to have folks come. Thank you.

Senator GRAHAM. Before I have to leave, I want to also thank the South Florida Water Management District which has been the active host of a number of Members of Congress and has helped to supplement the Everglades conference with a very educational tour of the Everglades. I hope that we can call on you again for the same help this year.

I am afraid I am going to have to leave for a noon meeting. Senator Voinovich, it is your time to question and I will ask if you would take the gavel and return to the leadership that he provided so effectively in this effort and then conclude the meeting with his questions.

Thank you very much and thank you to all who participated.

Senator VOINOVICH. [assuming the chair] Ms. Estenoz, as you know, we all work together very much on trying to make sure that the use of the Homestead Air Force Base will be consistent with the restoration of the Everglades.

Could you bring me up to date on where you think that situation is? I know that the Secretary of the Army—we listened to the language that we had in the bill and they made some decisions. But where is that right now and do you anticipate that what will be done with that will be consistent with the restoration?

Ms. ESTENOZ. Senator Voinovich, I may have to submit the answer to that question in writing. I am not as familiar with where we are in the process. I do know that there is a redevelopment plan out there. I am not quite sure where it is in the approval process.

I think that Miami–Dade County and folks who are working on the redevelopment of Homestead Air Force Base are, I think, really committed to trying to come up with a redevelopment plan that is consistent with what we are trying to do in the Everglades and Biscayne National Park.

I would say also that the county is just beginning to launch into a pretty massive watershed planning effort for the South Dade watershed. That effort is intended to look at the next 20 years. Part of the direction for developing that watershed plan is to support economic development that is consistent with the restoration of natural resources in the national parks. So we are optimistic at this point. Thank you.

Senator VOINOVICH. In your testimony you say "It is critically important that individual CERP projects be implemented expeditiously due to the encroaching urban development, escalation costs of delay and impending estuarian collapse."

When I asked the question to Mr. Struhs about trying to make sure that we don't have further encroachment, the answer was basically we have to buy more land. The question I have is, now you say that Dade County is doing this water management. Is there any effort at all by the surrounding communities, the counties, to try and put in place limitations that would preclude it from being used for things that are inconsistent with this restoration?

Ms. ESTENOZ. Senator Voinovich, I think you have identified, you have put your finger on an issue where I think we have really got to turn our attention, and we haven't. That is linking up land use decisions, future land use decisions with water management planning and ecosystem restoration.

I think everyone in Florida understands that it is necessary to do that, but it is how do we create those links that has been a challenge. We would argue that we have one of the most progressive land use statutes in the country. Yet it doesn't always get enforced. In fact, most of the time it isn't enforced in the way it needs to be.

So we really look to the State of Florida to exercise its very important and critical oversight role over land use decisions. In the State of Florida it is not just up to local governments. The State of Florida has oversight over land use.

Since they also have a 50–50 partnership in this project, those two interests should overlap. We would like to see stricter enforcement by the State of Florida of its growth management act in south Florida.

That doesn't discount the need for land acquisition. I mean Secretary Struhs is absolutely right and we say that in our testimony, that we have to move forward and we have to move forward quickly. But you can't buy all the land in south Florida that is not developed. You can't do it.

We have a Growth Management Act to protect those lands and we need to enforce it.

Senator VOINOVICH. Well, Mr. Struhs is still here. I would like to know what laws are in place and what is the State doing to try and encourage land use planning and the proper use of that and what other things are in place, perhaps, on the county level that address themselves to this land use issue.

Again, I am glad the regs are talking about the use of the water and that the water is going to be used to restore the water in the Everglades. From a very provincial point of view, I don't want to spend Federal money to take care of the water supply needs of a growing and expanding Florida. We want to take this water and use it to restore the Everglades.

Ms. Gosa, you represent, you say, all the commodity groups in Florida?

Ms. GOSA. No, sir. I represent the Florida Farm Bureau. All commodities are members. We are not specific.

Senator VOINOVICH. You have all of it, the sheep, the cows, all the rest of them, the dairy? They all belong to the Farm Bureau?

Ms. GOSA. Yes, if they grow it in Florida, they are members of us.

Senator VOINOVICH. One of the concerns that I heard expressed in the last couple of years was the concern of the agriculture economy, from members of it, as to whether or not this is inconsistent with what they think is in the best interest of their selfish interest of their farms and their agriculture business.

At this stage of the game, do you feel comfortable? You mentioned something in your testimony. Are we harmonizing what they are doing in the Everglades along with—do you feel as threatened as you did maybe 2 years ago or 3 years ago, let's put it that way.

Ms. GOSA. I can easily say we are much more comfortable than we were 2 years ago. There was just a lot more uncertainty. I think that we have a balanced plan here. It really looks into other water-related needs. It is written into the law. It is written into programmatic regulations. So I can confidently say we are pretty comfortable.

I don't think that restoration and a viable agriculture community are diametrically opposed. I think we can go hand in hand.

Senator VOINOVICH. Well, that is encouraging to me because I know that there was some real concern about that at the time. You state in your testimony that the programmatic regulations set unrealistic deadlines. That is an interesting criticism of the regs.

While a project of this scope requires time to ensure that it will be beneficial to people and organizations, they apply pressure to progress. They want to see something get done.

In your opinion, how do you balance the uncertainty with goals and expectations for results? What is your suggestion on how that gets done?

Ms. GOSA. Well, basically, what we are really thinking there is deadlines and timelines are critical. They are important. We like to see them, also. Our concern is we knew this was big when we started, but I don't think anyone had any idea just how big.

I think as the different agencies have gotten into this the learning curve has been a lot larger than we thought. So basically, what we are saying is, when you have a 6-month deadline, you have a number of deadlines coming up that may or may not be attainable. We don't want the public to be looking at this plan as a failure because we have missed a few deadlines.

It might have just been a little more ambitious because we didn't realize just how much was going to be entailed to get where we need to be to set those deadlines.

Senator VOINOVICH. That is the point you are making, that you don't mind setting deadlines, but you are concerned that if they are ironclad and you need a couple more weeks or a couple more months to do it right, you would rather do it right rather than do it halfway where it wouldn't be as good as it should be. Is that the point you are making?

Ms. GOSA. We want to do it right and we don't want the public to get a misconception that this is a dismal failure just because maybe we set our deadlines just a little too ambitiously.

Senator VOINOVICH. Ms. Estenoz, you talked about the interim goals and making sure that we are moving along in the right direction so we don't get off track. Do you think through the regulations you are going to be able to get this coming together of this overall vision so that we don't go off on one project and in the process of doing that we end up doing harm to the overall effort?

Ms. ESTENOZ. In the current draft, Senator Voinovich, we would like to see some improvements in that regard in the current draft. First of all, the current draft doesn't contemplate that when the interim goals are developed that they will be folded into the regs.

We feel very strongly that the interim goals need to be part of the regulatory structure. I know that that may come across to some folks as draconian. You know, we don't want to lock ourselves into goals that we might not be able to meet.

Senator VOINOVICH. Why don't you do me a favor? Why don't you explain to me, give me an example of what you are talking about, OK?

Ms. ESTENOZ. OK. For example, if we develop some hydrologic targets, by the year 2010 we want to reach some hydrologic targets in the central Everglades and let's say those are expressed as frequency and duration of hydroperiod. That is an interim goal. We are in the process of developing those. I think that the regulations target that those goals will be completed by June of 2003, I believe. So we are close.

Once those goals are completed and we are comfortable with them, we would like to see them become planning goals as part of the regulatory structure. In other words, we don't want them to reside in an outside agreement between agencies that can be sort of changed willy nilly. I am overstating slightly to make a point.

We think that once you have decided where you are going you have to commit yourself. We have to get there. You shouldn't be able to change goals easily. You should be able to be flexible certainly. We think that it is completely possible to put planning goals inside of a regulatory structure and maybe flexibly enforced.

I think an important point to remember is that State law contains at least one numeric planning goal for water supply planning and that one numeric planning goal has driven water supply planning since 1997. It even helped to shape the CERP. The reason it drove water supply planning, it has driven water supply planning for this long, is because it is in the statute. It is in the law. Agencies tend to do what is in the law first, particularly in times of fiscal stress or political tension. They do what is in the law first. They do what is in inter-agency agreements second.

So we feel really strong. We want to get the interim goals right. We don't want to run headlong and accept a bunch of goals that we are not comfortable with. But once we have got them right, they should be folded into the regulation structure, in our view.

Senator VOINOVICH. Thank you.

I want to thank all of you for coming here today. My presence here should indicate to you that I have an ongoing interest in this restoration. I have frankly considered it, thus far in my career in

the Senate one of the most important things that I have done with my time.

Because I put so much into it, now it is like having a baby and I am going to pay attention to how the baby comes along.

I would like to let everyone know here that if you have some concerns that come along as we move through this, that I would be honored if you would personally contact my office and let me know of your concerns.

I am going to be very interested. We are going to stay in touch with you on your concerns about the regulations. We will watch that very, very carefully.

Thank you very, very much for being here today.

The meeting is adjourned.

[Whereupon, at 12:20 p.m., the committee was adjourned, to reconvene at the call of the chair.]

[Additional statements submitted for the record follow:]

STATEMENT OF HON. LES BROWNLEE, NDER SECRETARY OF THE ARMY AND ACTING ASSISTANT SECRETARY OF THE ARMY FOR CIVIL WORKS, DEPARTMENT OF THE ARMY

Mr. Chairman, members of the committee, I am Les Brownlee, Under Secretary of the Army and Acting Assistant Secretary of the Army for Civil Works. I am pleased to be here today and to have the opportunity to speak to you concerning one of the most innovative, challenging, and significant environmental restoration projects ever undertaken. With the passage of the Water Resources Development Act of 2000, Congress authorized the comprehensive restoration of America's Everglades. The Administration views this effort as vitally important and places a high priority on its implementation. We are working cooperatively together with the Department of the Interior, our colleagues from other Federal agencies, and with our non-Federal partners to ensure success.

Background

The history of water in South Florida is long and complex. The wetlands ecosystem is one of the most unique and important in the world; however, after years of being impacted by human activity it desperately needs our help. Just over fifty years ago, Congress authorized the Central and Southern Florida Project. It was prompted by and set out to protect against the devastation and loss of life caused by the horrific storms and frequent flooding which at times afflict this area of our country. In carrying out the purposes of that legislation, there was an unintended and harmful impact on the natural ecosystem. The Army Corps of Engineers was directed by Congress in 1996 to develop a plan to restore the natural system while maintaining the flood protection and water supply to the human population. That plan was submitted to Congress in 1999.

As you know, the Comprehensive Everglades Restoration Plan (CERP) was approved by Congress in the Water Resources Development Act of 2000 (WRDA 2000) as a "conceptual framework" to guide the efforts of the Army Corps of Engineers and its partners. It is a technically sound plan developed by scores of the Nation's best Everglades scientists and engineers, with the goal of "getting the water right". The CERP, which will be implemented over the next 30 years, will:

- Improve the health of over 2.4 million acres of the South Florida ecosystem, including the Everglades National Park;
- Improve the health of Lake Okeechobee;
- Virtually eliminate damaging freshwater releases to the estuaries;
- Improve water deliveries to Florida and Biscayne Bays;
- Enhance water supply and maintain flood protection; and
- Protect water quality.

The CERP is the largest environmental restoration program ever undertaken, certainly in the United States and most likely in the world. It is a complex plan of interrelated projects capturing and delivering fresh water to the natural system. As a result of previously authorized projects focusing mainly on flood control, this water is currently being shunted quickly and deliberately to the sea without being used. Once captured, the majority of this unused water will be redirected and allowed to flow more naturally through the historic watershed which created the vast and amazingly vital natural ecosystem known as the Everglades. The remainder of this

"new" water may be used to benefit the human population of South Florida, enhancing water supplies for cities and farmers and alleviating pressure on the natural system.

Improving the quantity, quality, timing, and distribution of water in South Florida, while maintaining the current water supplies and level of flood protection, is a staggering task. The Department of the Army through the Army Corps of Engineers is working diligently to maintain the cooperation and consensus that will be necessary to implement this program.

Implementation

Toward that end, WRDA 2000, not only adopted the CERP as the framework for implementing restoration, it added several provisions to guide the conduct of the program. As required by statute, the President and the Governor of Florida signed an agreement to ensure that the State would not allow consumptive use of water made available by projects under the Plan until such time as requirements for the sufficient reservations of water for the restoration of the natural system were codified under State law. In addition, I have recently signed with the Governor, a Dispute Resolution Agreement as required by statute, which will be used to resolve any disputes which may arise with the State over implementation of the Plan.

While we do have a signed Dispute Resolution Agreement, I am happy to report that our working relationship with the State of Florida is very strong and cooperative. This relationship along with our other partners such as the Seminole and Miccosukee Tribes and the Department of the Interior, U.S. Environmental Protection Agency, and other agencies will be essential to the success of the program. Discussions with these stakeholders and several other groups were extremely important in the recent proposal of the Programmatic Regulations which are required under the statute.

The Programmatic Regulations establish processes and procedures that will guide the Army Corps of Engineers and its partners in the implementation of CERP. The Administration is committed to finalizing these regulations as soon as possible after the close of the public comment period on the proposal. The current draft of these regulations is the result of exhaustive discussions with the many concerned parties interested in the CERP program. We believe that we have struck a balance between the interests and have created a process which will allow the Corps to move forward and adapt to challenges as they arise. These regulations are currently in the public comment period, which will end October 1st of this year. One Public Meeting was held this week in Florida on September 10th and a second will convene September 19th. We will further refine the regulations based on the comments received and finalize the language for codification.

In creating the requirement for these regulations, Congress recognized the need for flexibility in implementing such a complex program, which relies on scientific and engineering expertise that is still evolving. Environmental restoration is a relatively new concept and the Army does not pretend to have all the answers. Through "the principles of adaptive management" and by seeking input from many sources, the Army Corps will constantly evaluate, refine, and adjust the Plan to meet its goals.

Addressing Uncertainty

In order to achieve the objectives of the Plan, several innovative techniques will be required to capture the water currently being diverted directly to the sea. This is not a simple process of dumping water into the natural system. It must be delivered at the correct times and in the correct amounts and be of acceptable quality in order to support the natural functions of the ecosystem. This means large capacities of water will have to be stored until the proper time for delivery. Storage of water is no easy feat given the porous geology of South Florida. There are several pilot projects which will test new technologies aimed at achieving this requirement.

As information is developed regarding these innovative technologies and assessments are made of the projects as they come on line, refinements will be made to the program. Assisting the Corps with these assessments will be the Restoration Coordination and Verification or RECOVER Team. This is an interagency team in which the Department of the Interior, State of Florida, and Tribes are full members. This group will provide input for adaptive management of the Plan and assist in the development of the "interim goals" under the Programmatic Regulations. These interim goals will be used to assess progress of the restoration efforts.

The science to be used in both establishing and assessing restoration of the natural system is also cutting edge. The Corps has engaged the services of the National Academy of Sciences (NAS) to review ongoing activities related to the aquifer storage and recovery (ASR) features. The NAS Committee on Restoration of the Greater

Everglades Ecosystem (CROGEE) recently initiated a technical review of the draft project management plan for the Aquifer Storage and Recovery Regional Study prepared by the Army Corps of Engineers and the South Florida Water Management District. The CROGEE is evaluating the project management plan with respect to the adequacy of the proposed scientific methods to address key issues raised in the CROGEE's February 2001 ASR report and other issues previously raised by issue teams and the South Florida Ecosystem Restoration Task Force Working Group.

Initial Projects

Although we are at the very beginning of this long journey, I thought that at this point it might be useful to give you just a brief status on the initial ten projects which have already been authorized by the Water Resources Development Act (WRDA) 2000 legislation.

C–44 Basin Storage Reservoir [δ601(b)(2)(c)(i)]—This project has been combined with the C–23, C–24, and C–25 component along with additional features detailed in the Indian River Lagoon—South Feasibility Study. The Division Engineers Notice will be signed in September 2002. It is expected that the features contained in the Indian River Lagoon—South Feasibility report will be ready for authorization as part of the next WRDA.

Everglades Agricultural Area Storage Reservoirs—Phase 1 [δ601(b)(2)(c)(ii)]—This project is scheduled to have a Division Engineers Notice in January 2004.

Site 1 Impoundment [δ601(b)(2)(c)(iii)]—This project is being pursued under the name Hillsboro Site 1 Impoundment project and is scheduled to have a Division Engineers Notice in February 2004.

Water Conservation Area 3A/3B Levee Seepage Management [δ601(b)(2)(c)(iv)]—This project has been combined with the C–11 Impoundment and Stormwater Treatment Area and C–9 Impoundment and Stormwater Treatment Area components and being pursued under the project name of "Broward County WPA." The Division Engineers Notice is scheduled for February 2004.

C–11 Impoundment and Stormwater Treatment Area [δ601(b)(2)(c)(v)]—This project has been combined with the Water Conservation Area 3A/3B Levee Seepage Management and C–9 Impoundment and Stormwater Treatment Area components and being pursued under the project name of "Broward County WPA." The Division Engineers Notice is scheduled for February 2004.

C–9 Impoundment and Stormwater Treatment Area [δ601(b)(2)(c)(vi)]—This project has been combined with the Water Conservation Area 3A/3B Levee Seepage Management and C–11 Impoundment and Stormwater Treatment Area components and being pursued under the project name of "Broward County WPA." The Division Engineers Notice is scheduled for February 2004.

Taylor Creek/Nubbin Slough Storage and Treatment Area [δ601(b)(2)(c)(vii)]—This project has been combined with the North of Lake Okeechobee Storage Reservoir, Lake Okeechobee Watershed Water Quality Treatment Facilities, Lake Okeechobee Tributary Sediment Dredging components and being pursued under the project name of "Lake Okeechobee Watershed." The Division Engineers Notice for this project is scheduled for May 2006.

Raise and Bridge East Portion of Tamiami Trail and Fill Miami Canal Within Water Conservation Area 3 [δ601(b)(2)(c)(viii)]—This project has been combined with the Eastern Tamiami Trail, Canal & Levee Modification in WCA 3, and North New River Improvements components and being pursued under the project name of "WCA 3 Decomp and Sheetflow Enhancement—Part 1." The Division Engineers Notice is scheduled for January 2006.

North New River Improvements [δ601(b)(2)(c)(ix)]—This project has been combined with the Eastern Tamiami Trail, Canal & Levee Modification in WCA 3, and North New River Improvements components and being pursued under the project name of "WCA 3 Decomp and Sheetflow Enhancement—Part 1." The Division Engineers Notice is scheduled for January 2006.

C–111 Spreader Canal [δ601(b)(2)(c)(x)]—This project is scheduled to have a Division Engineers Notice in December 2005.

As you can see we have only just begun this process. We are already learning important lessons about the complex interdependence of the individual projects which make up this plan. Perhaps the most significant first step toward actual implementation of the CERP is a project which was authorized outside of the CERP legislation. Congress authorized the Modified Water Deliveries (MWD) to Everglades National Park in 1989 as part of the Everglades National Park Protection and Expansion Act. WRDA 2000 actually requires that the Modified Water Deliveries provisions be implemented prior to the implementation of several CERP projects. As a result of litigation stemming from specific provisions in the authorizing legislation, the completion of MWD is currently on hold.

Conclusion

It is important to recognize that there are many questions associated with the CERP program. New technologies, engineering, and science are being explored. The interests and concerns of the stakeholders involved are as diverse as the population of South Florida itself. Maintaining and restoring one of the most diverse and thriving ecosystems in the world is a daunting challenge in and of itself, but when that ecosystem must reside next door to a diverse and thriving human population the complexity of the challenge is compounded exponentially.

The Army and this Administration are committed to working within this diverse culture and to saving one of America's most precious natural wonders. Despite all the questions that can be raised concerning this effort, we remain committed to moving forward. To wait will only exacerbate the degradation of the Everglades and make its restoration more difficult to achieve. The work that has been completed thus far is a solid foundation for proceeding. The flexibility, which is built into the CERP, allows us to meet the challenges presented by these questions and to answer them. The coalition supporting this effort is capable, resourceful, and committed. With a commitment to the long journey ahead and a recognition of the resources that will be required, we will be successful.

Mr. Chairman, that concludes my statement. Again, I appreciate the opportunity to testify today before the committee. I would be pleased to answer any questions you or other members of the committee may have.

RESPONSES OF R.L. BROWNLEE TO ADDITIONAL QUESTIONS FROM SENATOR GRAHAM

Question 1. Can you describe what will happen to the Everglades if no action is taken on the CERP?

Response. One could expect to see the health of the ecosystem continue under great stress. The micro-and macrobiological health of the Everglades would continue to decline, estuaries would continue to suffer, water quality problems would continue, and repetitive water shortages and salt water intrusion would become more frequent.

Question 2. What actions does Congress need to take in the near and distant future to move the CERP forward?

Response. Continued support of the Congress through appropriations and authorizations are key to keeping the Comprehensive Everglades Restoration Plan (CERP) on track.

Question 3. Can you describe the implementation schedule for the pilot projects—specifically, the anticipated start and end date and the start date of the actual project features that will use the results of the pilots.

Response. Yes, sir, that information is provided in the attached table.

PILOT PROJECT SCHEDULES

Pilot projects are considered complete when fully constructed and a Technical Data Report is completed. All dates shown are estimated, except as noted.

Project	Schedule	
	Initiate	Complete
Lake Okeechobee ASR Pilot	August 2000 *	November 2009
Construction Physically Complete		November 2006
Full Project: Lake Okeechobee ASR	November 2009.	
Hillsboro ASR Pilot	August 2000 *	April 2009
Construction Physically Complete:		June 2006
Full Project: Hillsboro ASR (Phase 2)	May 2009.	
Caloosahatchee River (C–43) ASR Pilot	March 2001 *	August 2008
Construction Physically Complete:		February 2006
Full Project: Caloosahatchee River ASR (Part 2)	August 2008.	
Lake Belt In-Ground Reservoir Technology Pilot	February 2001 *	September 2011
Construction Physically Complete:		April 2009
Full Projects (2): Central Lake Belt Storage Area	March 2011.	
North Lake Belt Storage Area	March 2011.	
L–31 North Seepage Management Pilot	January 2001 *	June 2006
Construction Physically Complete:		October 2004

Project	Schedule	
	Initiate	Complete
Full Project: L–31 North Seepage Management	September 2008.	
Wastewater Reuse Technology Pilot	April 2001 *	November 2013
Construction Physically Complete:		February 2009
Full Projects (2): West Miami-Dade Reuse.		
South Miami-Dade Reuse.		

(* actual date)

Question 4. What types of information will be gathered through these pilots?

Response. The pilot projects will reduce technical uncertainties related to some of the CERP components by gathering and defining the physical, chemical and biological characteristics in affected areas. This information will be used to further clarify component storage efficiencies, construction technologies, project location, and the impacts of the proposed projects on local resources and will assist us in optimizing the design of components prior to their full-scale development.

Question 5. Is WRDA 2000 the only time adaptive management has been authorized as a stand-alone line item in a Corps program?

Response. Yes. The $100 million adaptive assessment and monitoring program authorized in the Water Resources Development Act (WRDA) of 2000 is the first stand-alone authorization of its kind in a Corps program.

Question 6. Can you describe your vision of how the adaptive management authorization will be executed?

Response. The adaptive management program is described in the proposed programmatic regulations and consists of two elements, monitoring and assessment activities and management actions. The interagency Restoration Coordination and Verification (RECOVER) team will oversee the monitoring and assessment activities. These activities consist of implementation of a system-wide monitoring plan and the preparation of periodic assessment reports that document system responses and analyses to determine if measured responses are undesirable or fall short of achieving expected performance. Following review by the independent scientific review panel, the assessment reports will provide the basis for the implementing agencies, in consultation with others, to determine if management actions such as operational changes, sequencing and scheduling changes, or Plan changes are necessary to meet the goals and purposes of the Plan. Should changes to the Plan be necessary, a Comprehensive Plan Modification Report will be prepared and submitted to Congress.

Question 7. Can you describe the current implementation schedule, focusing specifically on the project sequencing as it relates to the environmental benefit produced?

Response. The current sequence and schedule was based on maximizing restoration benefits at the earliest possible date. The initial authorization package included in WRDA focused largely on those projects that could be implemented quickly based upon known technology and which would provide substantial environmental benefits. Remaining projects were sequenced based upon the physical and technical requirements for those projects. Specifically, the physical requirements are those associated with the sequencing of projects needed to support movement of new water. The technical requirements are those uncertainties related to projects such as aquifer storage and recovery and wastewater reuse. They were scheduled to follow the pilot projects. The proposed programmatic regulations envision that the sequence and schedule will be reviewed annually to incorporate new information. We have already begun to analyze the sequence and schedule to incorporate new information, including the requirements of WRDA 2000. We remain committed to implementing CERP in a manner that maximizes restoration benefits at the earliest possible time.

Question 8. Does the CERP provide water supply benefits under the guise of environmental restoration?

Response. No. The approved Plan provides that most of the water generated will be used for restoration. Projections of future water demands without the Plan indicate serious levels of water supply cutbacks. Under the Plan, new storage facilities will be built throughout the region to ensure a more reliable water source. As are result, the frequency of water restrictions for agricultural and urban users will be significantly reduced. The ability to sustain the region's natural resources, economy,

and quality of life depends, to a greater extent, on the success of the efforts to enhance, protect and better manage the region's water resources.

Question 9. When do you anticipate that the first PIRs for the first 10 projects will come to Congress for authorization by resolution?

Response. I will provide that information on the status of the initial ten components authorized in the Water Resources Development Act of 2000.

Schedules are currently being reviewed to account for additional requirements set forth in WRDA 2000 and the draft programmatic regulations, which may require some adjustment to the manner in which we design and construct these initial projects. Specifically, certain components and/or projects may have to be combined which could result in a change in the scheduled completion of the PIR for these projects, as compared to the original project schedules reported in Chapter 10 of the Restudy Report. We are still evaluating the best way to proceed, so the information provided reflects the best information currently available.

[Information provided below:]

C–44 Basin Storage Reservoir—The C–44 Basin Storage Reservoir project has been merged into the Indian River Lagoon South Feasibility Study, along with the C–23, C–24, and C–25 CERP components, and additional features needed to restore the Indian River Lagoon region of the ecosystem. The Division Engineers Notice on that study was signed in September 2002 and the report is currently undergoing Washington level policy review. The Chief of Engineers Report, including a recommendation for C–44 project modifications, is scheduled for submission to the Congress in early 2003. The study contains the additional plan formulation required by WRDA 2000 for Project Implementation Reports, however, information on project assurances, savings clause, and the analyses to determine water needed for the environment are not available at this time pending completion of the Programmatic Regulations. The Project Implementation Report is scheduled to be submission to the Congress in the third quarter of 2004.

Everglades Agricultural Area Storage Reservoirs—Phase 1—The Project Implementation Report for this project will be submitted to the Congress in the third quarter of fiscal year 2005.

Site 1 Impoundment—The Project Implementation Report is scheduled for submission to the Congress in the third quarter of fiscal year 2005.

Water Conservation Area 3A/3B Levee Seepage Management—The Project Implementation Report is scheduled for submission to the Congress in the third quarter of fiscal year 2005.

C–11 Impoundment and Stormwater Treatment Area—The Project Implementation Report is scheduled for submission to the Congress in the third quarter of fiscal year 2005.

C–9 Impoundment and Stormwater Treatment Area—The Project Implementation Report is scheduled for submission to the Congress in the third quarter of fiscal year 2005.

Taylor Creek/Nubbin Slough Storage and Treatment Area—The Project Implementation Report is scheduled for submission to the Congress in the third quarter of fiscal year 2006.

Raise and Bridge East Portion of Tamiami Trail and Fill Miami Canal Within Water Conservation Area 3—The Project Implementation Report is scheduled for submission to the Congress in the third quarter of fiscal year 2006.

North New River Improvements—The Project Implementation Report is scheduled for submission to the Congress in the third quarter of fiscal year 2006.

C–111 Spreader Canal—This Project Implementation report is scheduled for submission to the Congress in the third quarter of fiscal year 2006.

Question 10. Will those documents be consistent with the programmatic regulations?

Response. Yes. All documents will be consistent with the programmatic regulations,

Question 11. Can you provide a list of the reviews/oversight reports that have been conducted by outside agencies?

Response. Yes, sir. These reviews / reports are as follows:

The National Academies of Sciences—National Research Council's Committee on Restoration of the Greater Everglades Ecosystem (CROGEE) has a number of activities completed or underway for the South Florida Ecosystem Restoration Task Force. These activities are listed below:

A report entitled, "Aquifer Storage and Recovery in the Comprehensive Everglades Restoration Plan". This report was issued in February 2001.

A report entitled, " Florida Bay Research Programs and Their Relation to the Comprehensive Everglades Restoration Plan". This report was issued in August 2002.

A report entitled, "Regional Issues in Aquifer Storage and Recovery for Everglades Restoration: A Review of the ASR Regional Study Project Management Plan of the Comprehensive Everglades Restoration Plan". This report was issued in October 2002.

Report on adaptive assessment and monitoring (ecological indicators). This report is being peer reviewed and should be issued in early 2003.

Report on storage options and the CERP in the event that ASR is not feasible at the scale foreseen in the CERP. The draft report is scheduled early 2003.

Report on "Science and the Greater Everglades Ecosystem Restoration: An Assessment of the Critical Ecosystem Studies Initiative" by the National Research Council, Water and Science and Technology Board. This report was released on 18 December 2002.

The General Accounting Office (GAO) has undertaken several audits of the entire South Florida restoration effort. These efforts are listed below.

An Overall Strategic Plan and a decision-Making Process Are Needed to Keep the Effort on Track. This report was completed in April 1999.

A Land Acquisition Plan Would Help Identify Lands That Need to Be Acquired. This report was completed in April 2000.

Additional Water Quality Projects May Be Needed and Could Increase Costs. This report was completed in September 2000.

Substantial Progress Made in Developing a Strategic plan, but Actions Still Needed. This report was completed in March 2001.

Audit underway on "Science Supporting the Restoration of the South Florida Ecosystem." The final report is scheduled for completion in February 2003.

The Army Audit Agency (AAA) has recently undertaken two audits which are expected to be completed in February 2003. These audits are as follows:

Project Cost Sharing by the South Florida Water Management District

Permitting Processes in South Florida

Question 12. How can you ensure that this project does not have excessive cost overruns?

Response. Each project authorized by Congress will be subject to a maximum project cost as prescribed by Section 902 of the WRDA 86. In addition, during all phases of the project's implementation, proposed changes to the project will be subject to a change control process as prescribed by the Corps business process. This change control process will be managed via the Design Coordination Team that has been established with each project sponsor and through the Corps Project Review Board. All changes will be reported to the Corps higher authority through the established Vertical Team which includes representatives from the Division, Headquarters, and the Office of the Assistant Secretary of the Army for Civil Works.

Question 13. There are multiple requirements in the law related to outreach and assistance. Specifically, the Corps was required to allow opportunities for small business concerns owned and controlled by socially and economically disadvantaged individuals to participate in the project in accordance with the Small Business Act (15 U.S.C. 644(g)). In addition, the Corps was to ensure that impacts on socially and economically disadvantaged individuals, including individuals with limited English proficiency, and communities are considered during implementation of the Plan, and that such individuals have opportunities to review and comment on its implementation. In addition, the Secretary was also to ensure that these individuals were provided with public outreach and educational opportunities. Can you describe how the Corps has complied with these three elements of the WRDA 2002 authorization? Are South Florida businesses being targeted under the small business requirements?

Response. The Corps of Engineers has worked diligently, in cooperation with the South Florida Water Management District and other project sponsors, to identify and assist small and small disadvantaged businesses to participate in the implementation of the Plan. The Corps' Jacksonville District has established and filled a new Assistant Deputy for Small Business position at its new Restoration Program Office, located in West Palm Beach, Florida. This person works to conduct business outreach activities such as small business trade fairs and conferences, technical assistance workshops, minority business networking/mentoring sessions, and identify existing Small Business 8(a) certified firms qualified to participate in the Everglades restoration program, as well as firms that are not currently certified, but which may be good candidates for certification.

The Corps' public outreach program includes a number of activities that target minority communities. Jacksonville District has established an Outreach Team that

includes individuals located in both Jacksonville and in south Florida. The Outreach Team works at both the program and project levels to inform and engage minority communities. Activities conducted for the purpose of reaching out to minority communities include placing ads and articles in widely circulated newspapers, and producing and distributing newsletters, written in both English and Spanish. Other materials, including those translated into Creole, have been produced or are currently in production.

In addition, the Outreach Team has participated in numerous African and Haitian community events, bringing information about the Comprehensive Everglades Restoration Program directly to the community. Another activity that takes the Corps to the communities is a new initiative called "Community Dialogues." Through this program, the Corps will work with Small Business 8(a) certified firms to identify a network of community leaders who will assist the Corps in taking the Everglades restoration message to all people from all cultural backgrounds.

Question 14. Within 180 days of passage of WRDA 2000, there was a requirement for the Secretary to submit to Congress a report on the Biscayne Aquifer Storage and Recovery project in Miami-Dade County and whether or not it has a substantial benefit to the South Florida ecosystem. Where is this report? Can you summarize its findings? Do you plan to submit it to Congress in accordance with the statute?

Response. The Jacksonville District completed this report in May 2002. The report determined that there is not enough information to determine whether the proposed project will provide substantial benefit to the South Florida ecosystem. The Corps' recommendation is that further study be initiated. The report is currently under review within the Administration.

Question 15. Has the dispute resolution document been signed?

Response. Yes. The Dispute Resolution Agreement between the South Florida Water Management District, the Governor of Florida and the Department of the Army was executed on September 9, 2002.

Question 16. The programmatic regulations describe in some detail the process that you used to consult with other governmental entities, interested parties, and the general public in developing those regulations. Can you describe both the informal and the formal consultation process that you used?

Response. Yes, I can. The Corps used an extensive process to consult with other governmental entities, interested parties, and the general public in developing the proposed regulations. Briefings on the programmatic regulations were provided to the Governing Board of the South Florida Water Management District and its Water Resources Advisory Commission, as well as the South Florida Ecosystem Restoration Task Force and its Working Group. In addition, programmatic regulations web pages were developed and posted on the Comprehensive Everglades Restoration Plan web site. The Corps held an opening round of meetings with agencies, interest groups, and the public in May and June 2001 to discuss the process that would be used to develop the programmatic regulations and to solicit comments on the major issues and concerns that should be addressed in developing the regulations. Following this initial round of meetings, they developed a draft outline of the programmatic regulations and then held a second round of meetings in September and October 2001 with agencies, interest groups, and the public to solicit comments on the draft outline. After the second round of meetings, the Corps developed an initial draft of the programmatic regulations that was distributed to the public on December 28, 2001 and allowed for informal public comment until February 15, 2002. During the comment period, the Corps held meetings with agencies, tribes, and interest groups, to discuss the initial draft. They also received written comments on the initial draft that was posted on the programmatic regulations web site. During this time, the Water Resources Advisory Commission formed a subcommittee on the programmatic regulations that met several times to discuss issues concerning the initial draft and potential solutions to these issues. The South Florida Ecosystem Restoration Task Force also met several times after the release of the initial draft to discuss the programmatic regulations. Based upon public comment and the comments of the Task Force and the Water Resources Advisory Commission, further revisions were made to the initial draft and the draft rule was formally published in the Federal Register on August 29 beginning a 60-day public comment period. During this period, numerous informal meetings were held with stakeholders to understand their concerns and two formal public meetings were held to enable the public to comment on the proposed regulations. Since October 1, when the public comment period closed, the Corps has posted all of the comments received to the programmatic regulations web site.

Question 17. In the Senate Committee's report on WRDA 2000, we explicitly mentioned that we expected the water produced by the Plan to be divided between the

natural system and the human environment with an 80—20 split. The report language clearly indicated that this did not necessarily mean that the water from every project would be divided this way or that at all given moments in Plan execution the water would be divided this way. Instead, it meant that in the aggregate, the water would be divided 80–20. The programmatic regulations appear to take a huge step away from this requirement. Can you describe how this section of the programmatic regulations is consistent with the intent of WRDA 2000?

Response. The Army is committed to providing the water that is needed for restoration of the natural system. It is my belief that the proposed regulations are fully consistent with the intent of the Senate authorizing Committee.

During the Restudy, the Corps estimated that approximately 80 percent of the new water generated by the Plan would go to the natural system. The report of the Senate Committee recognized that the Plan contained a general outline of the quantities of water to be produced and communicated its intent that "the water necessary for restoration, currently estimated at 80 percent of the water generated by the Plan, will be reserved or allocated for the benefit of the natural system."

Although those percentages were appropriate as an initial estimate for the purpose of evaluating the Plan, the proposed regulations anticipate that each Project Implementation Report will evaluate and identify the water to be reserved for the natural system and that which could be made available for other water-related needs of the region, and that the Plan itself will be continually evaluated through adaptive management. As I stated earlier, the adaptive management process will include monitoring of project implementation and an independent scientific review of the associated reports. This may result in further recommendations for adjustment of water reservations to ensure that the system receives neither too little nor too much water to sustain a healthy, viable environment. Accordingly, the water actually allocated to meet the needs of the natural system and the water available for other human uses may be greater or less than the initial Plan estimate. Therefore, the proposed regulations do not contemplate that water will be strictly allocated on an 80–20 basis, either system-wide or on a project-by-project basis. I want to emphasize again, though, that the Army is committed to providing the water that is needed for restoration.

Question 19. During the hearing, we discussed the 80–20 split of water. Here is this portion of the transcript. In this exchange, I believe we agreed to use 80–20 as a planning goal for restoration. I would like to see the report I mentioned during my statements below, and I would also like to see the draft language revising the programmatic regulations to reflect this change.

[Insert from the hearing transcript of September 13, 2002]

Senator Graham. I mentioned in my opening statement that I had some concerns about the initiative draft of the programmatic regulations. Are these related to whether there should be interim goals or milestones along the route from where we are to our ultimate destination?

Second, what will be the role of the Department of Interior in the evaluation of this project as it goes forward and the restoration assurances regarding water supply which will be available for the natural system?

That last item is particularly important because the timing of the project, and this is a function of the engineering and ecology, is such that it will be toward the mid and later point of the process that the major water demands for the natural system are going to be met.

The concern is that if the water has been already allocated to other uses before you get to that point, there won't be an adequate amount for the natural system. So that was one of the reasons that this complex process was inserted into the legislation which Mr. Gibson had so much to do with its actually drafting.

I wonder if you could comment on those three issues of interim goals, Department of Interior and restoration assurances for the natural system.

Maybe Mr. Brownlee, then Ms. Klee and then Mr. Gibson.

Mr. Brownlee. Yes, the programmatic regulations do provide for the development of interim goals. Of course, as you know right now, the programmatic regulations are out for public comment. I expect that we will get some comments in that regard so there is a way to wrap those into the programmatic goals. I expect that we will do that.

The Department of Interior is very much involved in this and has been. I think it has been a very inclusive process from our point of view. I know that there are several points in the process where the Department of Interior's concurrence is required for us to move forward on some of these intermediate steps.

So the perception of the Corps is that it is very inclusive and they are very much involved and they are a very important partner on this and we rely on them greatly. I hope that is their perception also.

The committee mentioned in its legislation that they expected about an 80–20 breakdown of the water, 80 to the restoration and 20 for other purposes. I can only tell you that the programmatic regulations reflect and everything I have heard from the Corps indicates that the Army is committed to providing the amount of water required for restoration. We realize that that is the overarching goal. The Corps is headed that way. Whether or not it will be slightly above or slightly below 80 percent, I wouldn't state categorically.

But I would state very clearly that the Corps is committed to providing the amount of water required for restoration.

Senator Graham. There was a rationale behind the 80–20 numbers that were inserted in the original legislation. I think it is important that the Corps be sensitive to that and if there is reason that 80–20 should not be, for planning purposes, a goal of water allocation, I would like to get a report back from the Corps as to why they think that those numbers are not appropriate.

Mr. Brownlee. This morning I would tell you, sir, they seem to be very appropriate. I am not suggesting in any way that they are not. I am only suggesting that I don't know if we will hit right on 80, but as a planning goal, I think they are perfectly appropriate.

Senator Graham. Thank you.

Response. As I stated at the hearing, I see no reason at this time to suggest that the Corps' initial estimate of 80/20 be abandoned as a planning goal. However, it should be emphasized that this was only an estimate made during the Restudy at a time when it was recognized that more science would be needed to confirm the needs of the system. The Army recognizes that restoration is the overarching goal of CERP and is committed to providing the amount of water required to accomplish that goal.

Question 20. Why are the performance targets for "other water-related needs" of the region included in the programmatic regulations.

Response. Since the Plan provides other water-related needs of the region in addition to the restoration, preservation, and protection of the South Florida ecosystem, the draft regulations also measure progress toward providing these other water-related needs of the region.

Question 21. What is the statutory basis for this provision?

Response. WRDA 2000 states that the overarching objective of the Plan is the restoration, preservation, and protection of the natural system, while providing for other water related needs of the region.

Question 22. Why is the timetable for the other water related needs of the region accelerated when compared with that for the natural system interim goals—those that measure the overarching purpose of the Plan?

Response. The timetable in the draft regulations for establishing targets for evaluating progress on achieving the other water-related needs of the region is the same as the timetable for establishing interim goals.

Question 23. What will happen if there is a conflict between the two sets of goals? How will these conflicts be resolved to ensure that the natural system remains the top priority?

Response. The draft rule states that the overarching objective of the Plan is the restoration, preservation, and protection of the natural system, while providing for other water related needs of the region. Based upon consideration of public comment received on the draft rule, the Army will make a final decision about how to resolve potential conflicts.

Question 24. How do the programmatic regulations address this potential conflict?

Response. The Corps has received a number of comments on this issue as a result of the public review of the draft rule for the programmatic regulations. They are currently analyzing the public comment that was received on the proposed rule before making a final decision about how to resolve potential conflicts.

Question 25. Interior appears to be specifically excluded from concurring in decisions made by the Corps and the SFWMD as to whether or not water identified in the pre-CERP baseline is available at the time that water allocations are made for future projects. This could have an impact in the future, as water intended for the natural system could be re-allocated based on the fulfillment or lack of fulfillment of the pre-CERP baseline water quantities. Can you describe how this process would work and why Interior is excluded?

Response. The draft regulations include a process for developing the pre-CERP baseline. The pre-CERP baseline will be developed by June 30, 2003 in consultation with the Department of the Interior and other Federal, State, and local agencies and the Miccosukee and Seminole tribes. In addition, the regulations include a provision for the concurrence of the Secretary of the Interior on the pre-CERP baseline. Each Project Implementation Report, which is developed by the Corps of Engineers and the non-Federal sponsor, in consultation with the Department of the Interior and other Federal, State, and local agencies and the Miccosukee and Seminole tribes, will determine whether the pre-CERP baseline quantity of water of comparable quality is still available. However, WRDA prohibits a requirement for concurrence by the Secretary of the Interior on Project Implementation Reports and any other documents related to the development, implementation, and management of individual features of the Plan.

Question 26. The programmatic reg states that changes to a water reservation will require a change to the PCA. The original draft called for a return to Congress for authorization. I am aware of an argument being made that water reservations need to be fluid over time. However, this was not part of the debate in WRDA 2000, and the bill is specifically designed with the understanding that a reservation is a one-time, completed process. Congress authorizes these water projects using a PIR as the project description. That PIR includes a quantification of water to be developed that is then used by the State to issue a water reservation. That reservation is then an element of the contract between the Federal Government and the State for that project. Any change to the water reservation would indicate a change in the amount of water to be developed by the project or to be dedicated to the natural system. At this point, I believe that in most cases, Congress should review this type of change, but I am interested in learning more about why you have taken the approach you take in the draft regulations. Can you explain?

Response. Yes, I can. Reservations will be made based on the water to be reserved for the natural system, as identified in the Project Implementation Report. That identification will be the result of the best modeling and analytical information available at the time the Project Implementation Report is developed. Subsequently, as new information becomes available after construction and operation of the project, and in accordance with the principles of adaptive management, it is possible that the reservation may need to be revised to better meet the goals and purposes of the Plan. If system-wide monitoring reveals undesirable effects, assessment reports, which are subject to independent scientific review, are required to be prepared and will serve as the basis for any proposed changes. While the statute does not provide any requirement that changes in reservations be reviewed by Congress, the draft regulations require the completion of a Comprehensive Plan Modification Report that is transmitted to Congress for approval of major changes to the Plan.

Question 27. Can you describe with one example the movement of a PIR through the development and approval process using the programmatic regulation? At what points would the Department of Interior and other stakeholders are involved?

Response. The Project Implementation Report will be developed by an interagency Project Delivery Team that includes [MEM1]the U.S. Department of the Interior. Prior to initiation of any activities, a Project Management Plan will be prepared by the team in consultation with other agencies, including the Department of the Interior and other stakeholders, and provide opportunities for public review and comment. The Project Management Plan will describe the activities to be conducted in preparing the Project Implementation Report, including outreach activities and required coordination with the Department of the Interior under the Fish and Wildlife Coordination Act. The Project Delivery Team will conduct all the technical activities necessary to prepare the Project Implementation Report. RECOVER, an interagency scientific and technical team that includes the Department of the Interior, will provide an analysis of the performance of alternatives toward achieving the system-wide goals and purposes of alternatives. Project Delivery Team meetings and RECOVER meetings are open to the public. Public information and involvement activities, including participation by socially and economically disadvantaged individuals and individuals of limited English proficiency, will be conducted throughout the development of the Project Implementation Report as described in the Project Management Plan. The Project Implementation Report will contain appropriate NEPA documentation and include the Coordination Act Report prepared by the Fish and Wildlife Service. The Project Implementation Report will include the identification of water to be reserved for the natural system and a draft Operating Manual. The results of the analyses conducted by RECOVER will be included in the Project Implementation Report. The draft Project Implementation Report and NEPA document will be provided to agencies and the public for review and comment. After the final

Project Implementation Report has been completed, a public notice by the Division Engineer will be issued and the Project Implementation Report will be sent to Washington for review and approval. A 30-day State and agency review of the Project Implementation Report, which includes the Department of the Interior, will be conducted as required by law. Except for projects approved under the programmatic authority, the approved Project Implementation Report will be transmitted to the Congress for action.

Question 28. The programmatic regulations call for the release of each guidance memorandum within 6 months. Is it really possible to get these completed in the time period? How are you planning to prioritize their completion?

Response. The proposed regulations require the development of the guidance memoranda within 6 months of the promulgation of the final regulations. The proposed regulations also require that a concurrence process with the Secretary of the Interior and the Governor will begin after the development of the guidance memoranda. We have not prioritized the completion of the six required guidance memoranda at this time; however, preparation of many of these guidance memoranda is already underway. The Corps' goal is to get all of them completed as quickly as possible. Prior to publication of the final rule, we will review the schedule for completion of the guidance memoranda.

Question 29. The regulations also lack amplification of how the Corps will verify that a reservation has been completed—can you describe how this would occur?

Response. The Corps has not developed a specific process yet, but expects to be involved in the reservation process that will be undertaken by the State through its rulemaking process and plans to thoroughly analyze each reservation to determine that it has been made in accordance with the requirements identified in the Project Implementation Report. The Corps, as well as the Department of the Interior, has been involved in the development of a "white paper" by the South Florida Water Management District to address associated issues. This white paper is an initial effort to develop a methodology for identifying the water to be reserved for the natural system and for ensuring consistency between the procedures used in developing the Project Implementation Report, setting the reservation or allocation, and verifying that the reservation or allocation has been made.

Question 30. There is a large section in the programmatic regulations on operating manuals. It calls for the development of a system operating manual and project operating manuals. Interior and other stakeholders have clearly identified consultation roles. There is a provision allowing for adjustments to operating manuals during the year based on departures from expected rainfall or adaptive management without any specified consultation roles. Can you describe under what circumstances you would use this authority to make adjustments? Can you define what you mean by adjustment?

Response. The Corps has not developed specific guidelines for allowing adjustments based on departures from expected rainfall or adaptive management yet. However, in general, the authority would be used to make temporary, short-term operational changes to address problems resulting from excessive or insufficient rainfall that cannot be resolved using existing operating manuals and which often require a rapid response. Problems outside the scope of a temporary, short-term operational change will continue to be addressed under the adaptive assessment process involving preparation of an assessment report, subject to independent scientific review, and re-consultation with others before recommending changes to the current operating plan. In developing the final rule, we will consider providing a consultation role for others when we consider these temporary adjustments to the Operating Manuals.

Question 31. According to the Administration's Climate Action Report 2002,". . . the natural ecosystems of the Arctic, Great Lakes, Great Basin, and Southeast, and the prairie potholes of the Great Plains appear highly vulnerable to the projected changes in climate." In addition, that report says due to a projected rate of sea level rise from 4–35 inches over the next century, with mid-range values more likely, estuaries, wetlands and shorelines along the Atlantic and Gulf coasts are especially vulnerable. What consideration has been given in the development of the long-term plan for restoration of the Everglades to the effects of global warming and sea-level rise?

Response. The Plan included a scenario on the effect of sea level rise on the without project condition. The RECOVER team is responsible for analyzing the potential effects of sea level rise on restoration as part of its adaptive management responsibilities.

Question 32. WRDA 2000 provides for independent scientific review of CERP projects. Currently, the CROGEE functions in this capacity. What is the status of establishing a new panel?

Response. The Department of the Army is consulting with the Department of the Interior, the State of Florida, and the South Florida Ecosystem Restoration Task Force to determine if using the National Academies of Science's CROGEE is the best way to implement the requirements of WRDA 2000 for independent scientific review. The Task Force is currently developing recommendations to the Secretaries of the Army and Interior and the State of Florida and is expected to present these in the near future.

Question 33. Please describe how independent scientific review has impacted/will impact CERP projects.

Response. To date, independent scientific review has been able to make some very positive contributions to CERP implementation. For example, independent scientific review of the CERP aquifer storage and recovery components has led to the development of a study to examine regional impacts resulting from implementation of ASR. This study will supplement the work already proposed under pilot projects and is expected to make significant contributions toward reduction of risks and uncertainties before full-scale implementation of these components.

Question 34. What is the role of peer review in dispute resolution?

Response. Peer review can play a critical role in verification of the science being relied upon during any decisionmaking process.

RESPONSES OF R.L. BROWNLEE TO ADDITIONAL QUESTIONS FROM SENATOR CHAFEE

Question 1. What is the expected finalization date for the Programmatic Regulations?

Response. The Army expects to publish the final rule in the Federal Register in early 2003.

Question 2. How are interim goals provided for in the Programmatic Regulations?

Response. The process established by the draft regulations includes development of technical recommendations for interim goals by the interagency RECOVER team by June 30, 2003. The interim goals will be formally agreed to through an agreement to be executed by the Secretary of the Army, the Secretary of the Interior, and the Governor by December 31, 2003 that incorporates decisions made on the technical recommendations made by RECOVER and public comment on the draft agreement.

Question 3. What types of parameters will be laid out in the interim goals?

Response. The proposed regulations include principles for RECOVER to use in developing the technical recommendations for the interim goals. These principles include using indicators such as hydrologic indicators, improvement in water quality, and ecological responses.

Question 4. How often will the interim goals be revised as new scientific data related to the Everglades system arises?

Response. The proposed regulations specify that the interim goals be reviewed at a minimum of every 5 years, beginning October 1, 2005, to determine if the interim goals should be revised. This 5-year period was chosen to coincide with the periodic reports to Congress required by WRDA 2000. In addition, the Secretary of the Army, the Secretary of the Interior, and the Governor may revise the interim goals whenever appropriate as new information becomes available in accordance with the process described in the regulations.

Question 5. What is the status of the Independent Scientific Review Panel as required under WRDA 2000? Has the establishment of this Panel been addressed in the Programmatic Regulations?

Response. The Department of the Army is consulting with the Department of the Interior, the State of Florida, and the South Florida Ecosystem Restoration Task Force in determining if using the existing Committee on the Restoration of the Greater Everglades Ecosystem, established in 1999 by the National Academy of Science, would be the best way to implement the requirements of WRDA 2000 for independent scientific review or if a new panel should be established. I expect that the recommendations of the Task Force will be forthcoming very soon, which should facilitate establishment of this panel in the near future.

Question 6. Has the establishment of this Panel been addressed in the Programmatic Regulations?

Response. Yes, the draft regulations do provide for the establishment of the independent scientific review panel.

RESPONSES OF R.L. BROWNLEE TO ADDITIONAL QUESTIONS FROM SENATOR INHOFE

Question 1. Could Everglades restoration be accomplished with any of the flood protection alternatives for the 8.5 SMA?

Response. All of the project alternatives examined in the General Reevaluation Report and Final Supplemental Environmental Impact Statement dated July 2000 met the mandatory project requirement of mitigating flood damages from increased flows from the Modified Water Deliveries project. Everglades restoration would be accomplished in varying degrees.

Question 2. What Modified Waters components can go forward without completion of the construction of flood protection for the 8.5 SMA?

Response. None of the remaining components of the Modified Water Deliveries Project can go forward without completion of the Eight-and-One-Half Square Mile Area component.

Question 3. Why are the other components dependent upon completion of the 8.5 SMA project?

Response. All the remaining components of Modified Water Deliveries Project enable additional flows into North East Shark River Slough. Prior to providing additional flows into the Slough, flood mitigation measures must be provided to the Eight-and-One-Half Square Mile Area and acquisition of lands in the Everglades Expansion Area must be completed.

Question 4. Is there any other way in which Everglades restoration is meaningfully dependent on completion of flood protection for the 8.5 SMA?

Response. Yes. WRDA 2000 requires completion of the Modified Water Deliveries Project before appropriations can be made to construct certain CERP components. Planning for some CERP components also requires certainty about which flood mitigation plan for the Eight-and-One-Half Square Mile Area will be in place.

Question 5. What is the timeline for completion of these components?

Response. Until authorities are clarified on the Modified Water Deliveries Project, the timeline for completion of other related components is uncertain.

Question 6. What was the original timeline for completion of Modified Waters? What alternatives for the 8.5 SMA would meet this timeline?

Response. The 1992 General Design Memorandum projected a completion date of June 1997, so none of the Eight-and-One-Half Square Mile Area alternatives considered could meet this timeline.

Question 7. Rank the alternatives in the July 2000 Final Supplement to the Final EIS on the 8.5 SMA ("FEIS") for constructing flood protection for the 8.5 SMA project in terms of time for completion?

Response. Unfortunately, this is not possible at this time since the outstanding authority issues will impact any of the alternatives analyzed and implementation schedules were never developed on alternatives not recommended for implementation. Some of the alternatives were determined to be impossible to implement because of lack of support.

Question 8. How much acquisition of land is still required to implement each of the alternatives?

Response. Eight tracts remain to be acquired to be able to implement Alternative 1 and five hundred thirty tracts remain to be acquired to implement Alternative 6D. Remaining alternatives did not reach the acquisition stage, so information on land requirements is not available for most. However, based upon maps of the entire area, about one thousand five hundred more tracts would need to be acquired to implement Alternative 5.

Question 9. Explain the reasons for differences in time of completion. Assume when ranking these alternatives that Congress authorizes each alternative to commence immediately.

Response. Project completion schedules will vary as a result of several factors, depending on the complexity of the alternative, including the length of time to complete engineering and design, land acquisition, and construction. While authorized to begin immediately, the funding source and amount can also be controlling factors. In this case, authority issues have raised questions about the need for sponsor funding to implement the project and sponsor willingness and ability to fund these potential requirements has not been determined.

Question 10. How many residences, including those that are owner-occupied and those that are occupied by someone other than the owner, would the Corps have to acquire to implement Alternative 6D?

Response. Seventy-seven tracts include residences. Fifty-three of these are owner occupied and twenty-four are tenant occupied. Of the total, we estimate that only 10 residential tracks will have to be acquired by eminent domain.

Question 11. Explain in detail why Alternative 6D relating to the 8.5 SMA project is called the "Buffer Plan" in environmental documents?

Response. Alternative 6D has been referred to as a buffer plan because the levee proposed in the 1992 report has been relocated eastward to higher ground elevations. This location represents the most definable break between short hydroperiod wetlands and traditional upland areas, thus creating a buffer between the wetlands and the majority of the current residents who would be able to remain in the Eight-and-One-Half Square Mile Area.

Question 12. Explain what a "buffer" has to do with modifying water deliveries to Everglades National Park?

Response. When waters are delivered to the park, the plan lessens the frequency of flooding of the residents who would remain and it decreases the effects of the seepage canal on restoration of natural water levels in the Everglades National Park (ENP) by moving the canal further to the east.

Question 13. If Congress does not enact legislation to authorize Alternative 6D or otherwise direct the Corps' resolution of that issue, what courses of action can and will the Corps take to complete Modified Waters?

Response. Without clarification of the Corps authority to proceed, I do not believe it is possible for the Corps to complete the project. We hope to receive this clarification either through congressional action or by pursuit of an appeal of the District judge's ruling.

Question 14. Of the alternatives considered in the FEIS, what is the Corps' second choice after alternative 6D?

Response. At the time the General Reevaluation Report was completed the alternatives were evaluated on functionality and were not ranked in order of priority.

Question 15. What is the Corps' third choice?

Response. The Corps did not choose one.

Question 16. Does the FEIS state that each alternative, including Alternatives 1 and 2(b), meets the ecological goals of the Modified Waters project?

Response. No, the FEIS does not cite that conclusion. Each alternative, including Alternatives 1 and 2(b) would meet some of the ecological goals of the Modified Water Deliveries project. Alternatives 1 and 2B both performed better than the 1995 base condition that all alternatives were measured against. However, the recommended plan provides the greatest degree of environmental benefits for the lowest cost among all the alternatives considered.

Question 17. Is it accurate to say that Alternative 6D will cost about $58,000,000 more than Alternatives 1 or 2(b)?

Response. The difference between Alt 1 and 6D is $57.5 million and between Alt 2(b) and 6D is $54.2 million.

Question 18. Why should the Federal Government force families to leave their homes and have the taxpayers pay for an incomplete flood protection alternative that costs $58 million more than a plan that provides full flood protection, meets the ecological goals of Modified Waters, and forces no one from their homes?

Response. Residents in the 8.5 SMA do not have flood protection now. Those residents living below the 6.5-foot elevation are subject to frequent, often annual flooding. All of the alternatives provide the residents with flood mitigation for the higher flows of water from the MWD project. But, this mitigation will not improve the existing problem areas. The Army does not believe it prudent to spend millions of dollars and yet still leave those residents in a low area that will ultimately cause pressure to reduce water levels when restoration calls for higher levels.

Question 19. If it is not accurate to say that Alternative 6D will cost $58 million more than Alternatives 1, and 2(b), why is that so?

Response. Alternative 6D is estimated to cost $57.5 million more that Alternative 1 and $54.2 million more than Alternative 2(b).

Question 20. What are the cost estimates of these alternatives?

Response. Alternative 1 is estimated to cost $30.5 million, Alternative 2(b) is estimated to cost $33.8 million, and Alternative 6D is estimated to cost $88.1 million.

Question 21. If you estimate the cost for Alternative 6D—which requires substantial property acquisition—is similar to or greater than the costs of the other alter-

natives—which do not—explain why and provide a detailed explanation of the basis for your cost estimates.

Response. The 2000 General Reevaluation Report provides a good summary of the Alternative analysis completed during the study, including a breakdown of project costs. A copy of that summary (Table ES–1) is attached.

Question 22. What has the Department of the Interior ("DOI") told the Corps about whether DOI will release funds for the project if the Corps pursues Alternatives 1 or 2(b)?

Response. To date, the Corps has not received any formal communication from the Department of the Interior on funding Alternative 1, the 1992 plan. However, on December 24, 1998, Richard Ring, then the Superintendent of the Everglades National Park indicated in a letter that he could not recommend funding Alternative 1, and I quote "I cannot recommend that the Department of the Interior furnish the funding for the current mitigation component (the 1992 plan for the 8.5 Square Mile Area) of the Modified Water Deliveries Project," end quote. Funding for Alternative 2(b) has not been discussed.

Question 23. What has the DOI told the Corps about whether DOI will release funds for any alternative other than Alternative 6D?

Response. The Department of the Interior has not contacted the Corps about funding any alternative, except Alternative 6D, which it has supported through recent budget submissions and funding.

Question 24. Is one of the reasons that the Corps selected Alternative 6(d) that the Department of the Interior resisted funding Alternative 1?

Response. The Department of the Interior, along with the South Florida Water Management District, our local sponsor on the project, did not support Alternative 1 and requested that the Corps evaluate a full array of alternatives.

Question 25. What, if any, other obstacles exist to implementation of Alternatives 1 or 2(b)?

Response. Implementation of Alternatives 1 or 2(b) would require clarification of the Corps' authority, completion and approval of a new decision document, a local sponsor, and project funding.

Question 26. What are the hydrological differences between taking no action (no modified water deliveries) on the one hand, and adopting Alternative 1, Alternative 2(b), or Alternative 6D on the other hand. Specifically address for each alternative:

How much more water will there be and where will that water be?

How much of the additional water will be in the Park and how much will be outside of the Park?

What measurable difference will that extra water make for plants, wildlife, and other environmental indicators?

Where exactly will those measurable differences occur?

What is the measurable ecological significance of those differences?

Response. The table provided for the record in response to an earlier question summarizes the effects of each alternative in meeting the objectives of the analysis using various performance measures to evaluate those effects. Effects are not specifically identified as being inside or outside park boundaries. However, just as environmental deterioration outside the park can have a deleterious effect on park resources, the environmental improvements noted will have an impact both inside and outside the park.

Question 27. Would building the levee and seepage canal another mile to the east in the 8.5 SMA change the hydrological results? Would acquiring the entire 8.5 SMA and constructing no flood protection change the hydrological results?

Response. Yes. Each alternative evaluated in the General Reevaluation Report produces different hydrologic results.

Question 28. When the Corps measures the costs and benefits of this project, how does it value hydrological benefits?

Response. Hydrologic benefits are established through a comparison of depth, duration, seasonal variability and hydroperiod for an alternative against the conditions which existed in 1995. The 1995 conditions were the existing conditions resulting from the authorized operating plan in effect at the time the General Reevaluation Report was initiated. These comparisons are presented in detail in the table provided for the record mentioned earlier.

Question 29. How does it measure the costs of removing a person or family from their home?

Response. The cost of acquiring an interest in property is based upon a fair market value analysis of that property, plus any relocation benefits which may be due the property owner.

Question 30. What value does it place on allowing a family to remain in their home protected from flooding?

Response. The costs of providing flood protection for a property are determined through an analysis of the projected construction costs of an alternative and associated real estate interests required to provide a specified level of protection. These costs are then compared to the expected benefits of providing that protection.

Question 31. Did Madeleine Fortin check with the Corps before she bought her home in September 1994? What was she told?

Response. The Corps does not maintain records of inquiries by potential property buyers, so I do not know if she contacted the Corps or not.

Question 32. Was the Mod Waters project to start in 1992 with completion no later than 1997?

Response. The 1992 General Design Memorandum projected a completion date of June 1997.

Question 33. Have many of the families in the 8.5 SMA been flooded in feet of water for months at a time almost every year since 1994?

Response. Homes in this area were built outside the flood protection levee and canals system and are reported to have experienced periodic flooding for many years. However, the depth and duration of those flood events are not well documented.

Question 34. Was the original congressionally approved plan to cost $39 million?

Response. In the 1992 General Design Memorandum, the project cost estimate was $85.6 million.

Question 35. Would the original congressionally approved plan have avoided removing families from their homes when families want to stay in their homes?

Response. Alternative 1 required acquisition of property that included 1 residential tract.

Question 36. Did the South Florida Water Management District at one time try to get the county to cutoff all electricity to the community?

Response. The Corps of Engineers has no record of this action.

Question 37. Were Metro Dade zoning regulations changed in the 1980's to prohibit new construction on parcels smaller than forty acres?

Response. The Corps does not have any record of this either.

Question 38. Are many holdings in the 8.5 SMA less than 5 acres?

Response. The majority of tracts are less than 5 acres. I will provide an estimated breakdown of tract acreage to be acquired for Alternative 6D for the record.

[Information provided below:]

- No. of. Tracts with <5.0 acres of land = 570
- No. of Tracts with 5.0 acres of land = 151
- No. of Tracts with >5.0 acres of land = 49

Question 39. Does the county deny responsibility for the roads in the 8.5 SMA, calling them private roads?

Response. The Corps has no record of the county's position on responsibility for the roads.

Question 40. Does Metro Dade collect property taxes from the 8.5 SMA residents?

Response. The Corps has no knowledge of the county's tax collection records.

Question 41. What services does Metro Dade provide?

Response. The Corps is not familiar with services provided by Miami-Dade County.

Question 42. Has Metro Dade blocked attempts by unincorporated areas to incorporate?

Response. The Corps does not have records on local issues of this type.

Question 43. Have fire trucks been impeded from saving burning home(s) by having to travel a very slow mile through 2 feet of water?

Response. The Corps does not have records on local issues of this type.

Question 44. Have there been more than $1 billion in flood-related losses and 14 deaths from preventable flooding throughout the urban and agricultural areas of the county?

Response. The Corps does not have records on flood damages in this area.

Question 45. Has anyone from the Corps or the Water Management District been disciplined over the flooding?

Response. I am not aware of any records of any disciplinary action concerning flooding in the Eight-and-One-Half Square Mile Area. Homes in the area were built outside the flood protection levee and canal system. The Central and Southern Florida Project is not designed to prevent flooding in the area. If the Corps were to oper-

ate the existing system to prevent flooding to the greatest extent possible, the result would only serve to further exacerbate environmental degradation that Modified Water Deliveries project is supposed to fix.

Question 46. When approached to have the 8.5 SMA's secondary drainage canals connected to the main system, did a SFWMD official state, "I will never give you a permit!"

Response. The Corps has no record of any such discussion.

Question 47. Did SFWMD vote to try to acquire the entire community, though they did not have the power to condemn land?

Response. On December 8, 1998, South Florida Water Management District requested that the Army Corps of Engineers substitute full acquisition of the Eight-and-One-Half Square Mile Area as the locally preferred alternative to the mitigation component of the Modified Water Deliveries project. However, in April 1999, the District's Governing Board departed from their previous position and recommended that the Corps develop a full array of alternatives for providing mitigation without taking a position on a locally preferred option. It is my understanding that South Florida has condemnation authority for some projects, but I am not familiar with the limits to their authority.

Question 48. Was this effort later described as a "miscommunication"?

Response. The Governing Board changed its position, but I am not aware of a representation that the Board felt the December 1998 letter was a miscommunication.

Question 49. Did one property owner write, "I like to inform you that we do like to sell our land that in accordance with the regulations has become good for nothing?"

Response. The Corps does not have this documentation in its Eight-and-One-Half Square Mile Area files.

RESPONSES OF R.L. BROWNLEE TO ADDITIONAL QUESTIONS FROM SENATOR SMITH

Question 1. The law states that the "overarching objective" of the Comprehensive Everglades Restoration Plan is the restoration, preservation, and protection of the South Florida ecosystem.

Response. I agree.

Question 2. Where in the programmatic regulations do you implement the language, clearly stated in the statute, that says restoration is overarching purpose of the Plan?

Response. There are several places in the proposed rule, which was published on August 2, 2002, where we state that the overarching objective of the Plan is the restoration, preservation, and protection of the South Florida ecosystem. Specifically, this language is found in δ385.8(b), δ385.37(c), and δ385.39(a)

Question 3. How do the regulations protect the Federal interest in the project?

Response. The draft regulations provide a number of interlinked processes to ensure that the Federal interest in the Plan is protected. First, each Project Implementation Report will identify the appropriate quantity, timing, and distribution of water dedicated and managed for the natural system and will identify the amount of water to be reserved or allocated for the natural system. Except for projects implemented under the additional program authority of WRDA 2000 which provided for approval by the Secretary of the Army, Project Implementation Reports will be submitted to Congress. The draft regulations provide that a Project Cooperation Agreement include a finding that the reservation or allocation of water for the natural system has been executed under State law and that any revision to the reservation or allocation will require revision to the Project Cooperation Agreement, including a verification that the revised reservation continues to provide the appropriate quantity, timing, and distribution of water dedicated and managed for the natural system. The draft regulations provide that Operating Manuals for the Plan must be consistent with the reservation or allocation of water for the natural system. Finally, the proposed regulations establish a process for developing interim goals and a means by which the restoration success of the Plan may be evaluated through the adaptive management program, including identification of management actions that may be necessary to improve performance in the event that goals are not met or are unlikely to be met.

Question 4. What happens if a project has dueling alternatives, that is, one alternative that provides benefits primarily to the natural system and one that provides benefits primarily to the other water-related needs of the region? What assurances

have you built into the regulations that the natural system takes precedence over the other water-related needs?

Response. Alternatives will be selected for their contribution to the system-wide goals and purposes of the Plan. WRDA 2000 provides clear direction that the overarching objective of the Plan is the restoration, preservation, and protection of the natural system, while providing for other water related needs of the region. The draft programmatic regulations have incorporated this concept, providing that a guidance memorandum will be developed which addresses the identification of appropriate water quantity, timing, distribution and quality needed for the natural system in the Project Implementation Reports. This guidance, which requires concurrence of the Secretary of the Interior and the State, will be provided to all project delivery teams for their use in identifying alternatives to be considered that ensure the overarching objective of the Plan are realized.

Question 5. Can you explain why the independent scientific review panel has not been established at this point, particularly considering the first report is due in December of this year? Can you give us an estimate as to when it will be set up?

Response. The Department of the Army is consulting with the Department of the Interior, the State of Florida, and the South Florida Ecosystem Restoration Task Force in determining if using the existing Committee on the Restoration of the Greater Everglades Ecosystem, established in 1999 by the National Academy of Science, would be the best way to implement the requirements of WRDA 2000 for independent scientific review or if a new panel should be established. I expect that the recommendations of the Task Force will be forthcoming very soon, which should facilitate establishment of this panel in the near future.

Question 6. When and where can we expect to see the first signs of restoration?

Response. We are already seeing the first signs of restoration in the Kissimmee River area, which is the headwaters of the South Florida ecosystem, where approximately 14 miles of river have been restored. Although this project is not a part of CERP, it has provided valuable information for CERP. The results so far dramatically show how hydrologic changes are restoring the Kissimmee River ecosystem.

Question 7. In your view, what is the greatest impediment to restoration at this point in the process? Where lies the greatest opportunity to ensure immediate results?

Response. The greatest challenge I see to expeditious implementation of restoration efforts, from the perspective of congressional support, is timely clarification of authorizations and receipt of appropriations. Continued support of the Congress through timely appropriations and authorizations are key to keeping CERP on track. From the perspective of stakeholder level interests, the high levels of development pressure in many areas in south Florida continue to make it increasingly difficult to assure that land interests ultimately deemed necessary for the project will be available. In addition, I see challenges in maintaining a system-wide perspective by all stakeholders and not getting bogged down in maximizing individual interests at the project or issue level. I believe that successful implementation is dependent upon maintaining the win-win approach that was used during the development of the comprehensive plan.

RESPONSES OF R.L. BROWNLEE TO ADDITIONAL QUESTIONS FROM SENATOR VOINOVICH

Question 1. Over the years, the Corps' backlog of construction projects and maintenance activities throughout the Nation has grown. Furthermore, it is my understanding that the Corps has had to increase spending on security measures following the terrorist attacks. How has the Corps balanced its many priorities and projects, including the demands of the Everglades Restoration Plan, with its inadequate budget and funding levels?

Response. The Corps has been working to prioritize projects and activities within the available Civil Works Program funding for a number of years. These efforts aim at assuring that those projects and maintenance activities that are most critical and meet National priorities receive adequate funding and are implemented in a timely manner. These efforts have included the identification of lower cost alternatives to be undertaken and the development of less expensive methods and tools to address priority needs. Lower priority projects and activities have been delayed or deferred. In addition, the Nation's priorities have changed over time, placing new or different demands on limited Federal funds. Such a change is the need to assure the security of this Nation from the impacts of terrorist attacks. An example of how we are addressing the Nation's priorities within the limited funds that are available now and

in the foreseeable future for projects and activities for which the Corps has been given responsibility is the fiscal year 2003 budget request where we fully funded a number of projects that are clearly identified as meeting the Nation's highest priorities to allow them to move forward on their optimum schedule for implementation. This did result in slowing progress on many other projects that are needed but work continues on those also. We are working with our partners and other entities to identify funding and opportunities to integrate all available resources to address the identified needs.

Question 2. Do you agree with some of the witnesses at the hearing and stakeholders who argue that interim goals should be developed as part of the programmatic regulations?

Response. The Corps received a number of comments on this issue as a result of the public review of the draft rule for the programmatic regulations. Some commenters believe that the interim goals should be incorporated into the regulations while others believe that they should not be included. We are currently analyzing the public comment that was received on the proposed rule before we make a final decision on this issue. Regardless of whether the interim goals are included or not included in the final regulations, the interagency RECOVER team has begun working on developing interim goals.

STATEMENT OF THOMAS GIBSON, ASSOCIATE ADMINISTRATOR FOR POLICY, ECONOMICS, AND INNOVATION, U.S. ENVIRONMENTAL PROTECTION AGENCY

Introduction

Good morning Mr. Chairman and members of the committee. I am Tom Gibson, Associate Administrator for Policy, Economics, and Innovation at the U.S. Environmental Protection Agency. As EPA's representative on the South Florida Ecosystem Restoration Task Force, I am pleased to be here on Administrator Whitman's behalf to discuss progress in restoring one of the nation's greatest and most unique natural resources—the Florida Everglades.

Two years ago, Congress approved a $7.8 billion Comprehensive Everglades Restoration Plan (CERP) and, in doing so, launched what many are calling the largest restoration effort ever undertaken in the world. This ambitious and forward-looking agenda will enable progress toward a more sustainable South Florida and preserve an ecological treasure for generations to come.

EPA is a strong supporter and active participant in making CERP work. Our goal is to maximize the environmental benefits of all 68 strategic components. To that end, we are working with our sister agencies in the Federal Government, along with State and local governments, Indian Tribes, agriculture, and other stakeholders to address water quality, water quantity, and a host of other issues that affect ecological conditions. We offer technical, financial, legal and regulatory assistance to tackle the many challenges that must be overcome if the Everglades are to survive and flourish. We have set up a small office in South Florida that enables us to engage more fully and consistently on issues than could ever be expected from our national and regional locales.

We also contribute to restoration efforts through ongoing responsibilities under the Clean Water Act, the Safe Drinking Water Act and other Federal laws. These ongoing tasks are not specifically referenced in CERP, but are vital to achieving progress in the Everglades and the larger South Florida region.

I'd like to discuss the progress we are making in the Everglades through our work on CERP and our national environmental responsibilities. But first I'd like to provide some background on the ecological conditions that are driving our work and that of so many others.

Conditions in the Everglades

It has been less than 2 years since CERP was approved. During that time we have laid the groundwork for restoration to proceed as envisioned. We are working well together and, no doubt, each agency could point out signs of progress. But the fact is we are still in the very early stages of what will be not just a multi-year, but a multi-decade effort. Indeed, it took more than fifty years to get to where we are today, and it is reasonable to expect that it will take at least a similar timeframe to achieve our restoration goals.

The conditions we observe in the Everglades today can be traced back to the middle of the last century. In 1948, the United States launched the Central and Southern Florida Project to provide water control for an 18,000 square mile area covering 16 counties. The goal was a laudable one—providing flood protection and urban and agricultural water supplies. That project fundamentally transformed South Florida,

and created significant economic opportunities. But the environmental impacts have been significant.

Today there are 6 million people living in the region, and the combined effects of population growth, water diversions and other stressors are severe. Only about half of the original Everglades remain. Water flow has dropped by 70 percent, and approximately 1.7 billion gallons of water are lost to the ocean and gulf daily during the rainy season, degrading the estuaries as it passes through. There are 69 threatened or endangered species and a 90 percent reduction in wading bird populations. Water quality often violates State water quality standards, and one million acres of the ecosystem are under health advisories for mercury. High levels of nutrients are causing changes in the natural vegetation, and 1.5 million acres are infested with invasive exotic plants.

EPA Activities in Support of CERP

EPA had a major role in the development of CERP, and we will continue to play an important role in its implementation. One of our first responsibilities is to provide input on the Federal regulations that will enable implementation to begin. These programmatic regulations, as they are known, will ensure that the CERP goals are achieved. Developed by the U.S. Army Corps of Engineers (the "Corps of Engineers"), in concurrence with the Department of the Interior and the State of Florida, and in consultation with EPA and other Federal agencies, they are to be completed by the end of the year and are currently undergoing public comment.

EPA is also a major partner in the development of performance targets for two-thirds of the 68 individual CERP components. We are assisting in the development of reclaimed water reuse criteria for several large wastewater treatment plants in Dade and Palm Beach Counties and in the review of individual projects under the National Environmental Policy Act.

In addition, EPA is working with the State on the evaluation and permitting of Aquifer Storage and Recovery (ASRs) wells. These wells provide underground capacity for water storage, and can help replace the natural capacity that has been lost in the Everglades through years of draining and ditching. Restoring at least a portion of this storage capacity is essential to accommodating the region's water needs. To this end, CERP calls for use of more than 300 ASR wells.

However, there are some issues we have to work through first. One relates to Federal requirements under the Safe Drinking Water Act. The waters being considered for storage are either surface waters or shallow groundwaters, and they may not meet all of the required drinking water standards. This is problematic because State regulations, consistent with Federal regulations for Underground Injection Control, require standards to be met prior to injection. Given the volumes of water proposed for storage—1.7 billion gallons a day—the treatment potentially required to meet those standards would be fairly expensive.

In light of the potential environmental benefits associated with ASR well storage and the high costs of treating the water prior to injection, EPA agreed to utilize a "risk based" approach to permitting ASR wells in South Florida . Consideration is provided if the contamination in the waters is limited to coliform and similar microorganisms that could be expected to "die off" underground and not pose a risk to human health. EPA will work with the State to demonstrate how this approach meets the "no endangerment" language of the Safe Drinking Water Act and achieves the goal of the ASR storage effort. The Underground Injection Control program in the State, which has been approved by EPA, may have to modify its regulations before this new permitting approach could be used.

The Corps of Engineers and the South Florida Water Management District are co-sponsoring pilot tests of ASR wells with EPA support. These wells are in various stages of development, with some having already been constructed. Our co-sponsors have also launched a regional study to evaluate the potential widespread impacts that a network of ASR wells could have on the region's surface waters, groundwater, and aquifers.

Other Contributions to Everglades Restoration

As a member of the South Florida Ecosystem Restoration Task Force and through the normal course of running its national programs, EPA is working with its sister agencies and other stakeholders on additional issues that will enhance and accelerate restoration.

Phosphorous Reductions

One priority is reducing phosphorous loads which can overload and overwhelm aquatic ecosystems. In compliance with the Florida Everglades Forever Act (the "EFA") and a 1992 Consent Decree between the Federal Government, the South Florida Water Management District and the Florida Department of Environmental

Protection (the "Federal Consent Decree"), the State must propose a numeric phosphorus criterion by the end of 2003. The proposed criterion must be submitted to EPA for review and approval. In order for EPA to grant approval, we must find that the proposed criterion will provide adequate protection for Everglades waters.

The Florida Department of Environmental Protection has initiated their rulemaking process, proposing a new criterion of 10 parts per billion (ppb) to their Environmental Regulation Commission (as required by State law) prior to submitting it to EPA. We anticipate this process will extend into 2003. EPA's Region IV office in Atlanta is actively working with the State to provide support and input regarding Federal Clean Water Act requirements for water quality standards adoption and approval.

In addition, EPA is working with the South Florida Water Management District and the Corps of Engineers as they build and operate approximately 46,000 acres of wetlands, required by the EFA and the Federal Consent Decree, that can be used to reduce phosphorus and other contaminants from urban and agricultural runoff. The phosphorous concentrations from the already completed, but not yet optimized, Stormwater Treatment Areas ("STAs"), are in the 20 to 25 ppb range. EPA is funding research to find ways to lower those concentrations further and to investigate chemical-based treatment technologies.

Under the Clean Water Act, EPA must review all NPDES permits issued by the State of Florida for STAs. While earlier permitting actions have been challenged, EPA, the State and many stakeholders have reached agreement on language that authorizes the discharges through 2006, and since then, challenges have been limited.

Wetlands Protection

Loss of wetlands remains one of the biggest threats to the Everglades. The South Florida region is one of the fastest growing in the country, with numerous large residential and commercial developments in various phases of planning, permitting and construction. Because major portions of the region are composed of wetlands and critical habitats for endangered species, wetlands permitting has been receiving a great deal of attention by the regulatory agencies and other stakeholders.

Under Clean Water Act Section 404, EPA will be reviewing all wetlands permits for Everglades restoration projects as well as for development in the South Florida area. EPA has been working with the Corps of Engineers on the development of special permitting review criteria to be used specifically in the Southwest Florida areas. We have also stationed two members of our South Florida office staff in Ft. Myers to work exclusively on wetlands issues.

Having this presence enables us to actively engage with local organizations that are working on wetlands protection. For example, the Watershed Enhancement and Restoration Coalition is focusing on permitting issues, and was formed as a result of community interest in addressing cumulative impacts of multiple and large wetlands impacts in the region. Our participation is already producing benefits. Lee County has expressed a strong desire to work with EPA to add water quality treatment and compliance monitoring to their current projects and long term master plan.

EPA is also working closely with the newly formed Southwest Florida Watershed Council, a partnership of public organizations and developers united to improve local and regional water quality conditions. The Council is currently focused on developing community support for a storm water utility to reduce the damaging effects of storm water discharges to coastal waters.

Mercury

Another issue that we are working on is mercury contamination. We are finding that the highest mercury concentrations occur in remote portions of the Everglades, and that the major sources of contamination are rainfall and atmospheric dry deposition. The estimated contributions from local versus regional and global atmospheric mercury sources vary widely.

To more accurately quantify these contributions and to better understand the ecological implications of mercury contamination, EPA is participating in a multi-year, Federal-State-private monitoring and research study. From 1989 to 1999, our partners contributed about $30 million. Additional research is still underway. Not only are the results providing insight for addressing mercury contamination in South Florida, the research is providing valuable information that can help with Clean Water Act and Clean Air Act responsibilities nationally.

Florida Bay

EPA is also actively involved in research that aims to restore Florida Bay. About eighty percent of this body of water lies within the Everglades National Park, and

so restoration decisions made on the mainland will affect its condition. Up until the late 1980's, those conditions were very good. Characterized by clear waters and lush seagrass meadows, Florida Bay served as the principal inshore nursery area for Tortugas pink shrimp and provided critical habitat for juvenile spiny lobsters and stone crabs. The Bay also supported an extensive sport fishery and was home to a vast population of wildlife, marine animals, and wading bird populations. But over the past decade, numerous biological, chemical and physical changes have occurred that threaten the resource and its uses.

EPA has been one of many Federal agencies supporting scientific research to advance our understanding of the ecosystem through the Florida Bay Program Management Committee. In 1994, this group developed an Interagency Science Plan that focused research efforts around a set of key issues. In 2001, a Florida Bay and Florida Keys Feasibility Study Team was organized in support of CERP. Its purpose is to determine the modifications that are needed to restore water quality and ecological conditions of the Bay, while maintaining or improving these conditions in the Florida Keys. Our interest is in coordinating scientific efforts in Florida Bay with research and monitoring in the Florida Keys, and in assuring that restoration efforts maintain or improve the Florida Keys ecosystem.

The Florida Keys

EPA's responsibilities in the Florida Keys stem largely from the Florida Keys National Marine Sanctuary and Protection Act of 1990. The law requires EPA and the National Oceanic and Atmospheric Administration to collaborate on a Water Quality Protection Program for the area, which includes the United States' only living barrier reef. As required, EPA and the State are now working to implement that plan, and most of the monitoring, research, data management, and educational initiatives are being funded by EPA.

Through 2002, EPA has contributed more than $10 million to this initiative. Many problems that hinder the Florida Keys are linked to significant wastewater treatment problems, and the price of addressing them may be quite high. Recognizing the severity of this need, we are working with our Federal, State, and local government partners to identify funds and other support that can be used to help Monroe County address its wastewater and stormwater management needs.

Closing

In closing, EPA continues to fill a variety of roles to advance the cause of the Everglades restoration and protection. Believing that we are poised for significant progress, we are committed to working with our many partners that share the common vision of a healthy, thriving ecosystem. It is our hope that by working together we will see visible results in the near term and that our progress will lead other regions and governments to undertake ecologically significant restorations of their own.

STATEMENT OF ANN R. KLEE, COUNSELOR TO THE SECRETARY, DEPARTMENT OF THE INTERIOR

Mr. Chairman, my name is Ann Klee. I am counselor to Secretary of the Interior Gale Norton and advise her on a wide range of natural resources and environmental issues, including the restoration of the Everglades. Additionally, Secretary Norton appointed me to serve as Chair of the South Florida Ecosystem Restoration Task Force, an interagency and intergovernmental entity established by Congress in the Water Resources Development Act of 1996 to coordinate the restoration of the south Florida ecosystem among Federal, State, tribal and local governments and the public.

I am pleased to testify before the committee to discuss the important progress we are making to restore the Everglades. I would like to recognize the committee's leadership in authorizing the Comprehensive Everglades Restoration Plan (CERP or Comprehensive Plan) in the Water Resources Development Act of 2000 (WRDA 2000). Since that time, we have worked diligently to implement the assurances provisions of WRDA 2000 and undertake other important on-the-ground work in Florida to move us closer to our Everglades restoration goals.

I want to underscore the Department of the Interior's (Department) commitment to Everglades restoration. It is one of our highest priorities. The National Park Service, the Fish and Wildlife Service and the United States Geological Survey will continue efforts to preserve and improve natural habitat; protect and recover endangered and threatened species; and obtain the best

available science to inform our decisionmaking. As steward of nearly 50 percent of the remaining Everglades, a successful restoration program is an absolute neces-

sity if future generations of Americans are to experience the wonder of one of the world's greatest natural resources.

The South Florida Ecosystem Restoration Task Force has defined three broad goals for restoration of the Everglades: (1) getting the water right: that is, restoring a more natural water flow to the region while providing adequate water supplies, water quality and flood control; (2) restoring, preserving and protecting natural habitats and species; and (3) fostering compatibility of the built and natural systems. I would like to discuss how Interior's efforts during the last year are contributing to the collective efforts that are necessary to achieve these goals.

Implementing the Comprehensive Everglades Restoration Plan

Since its enactment, we have worked closely with our Federal and State partners to begin implementation of the Comprehensive Plan and complete the assurances requirements of WRDA 2000. As you know, at the beginning of this year, the United States and the State of Florida executed a binding and enforceable agreement to ensure that water captured by implementation of the Comprehensive Plan will be reserved by the State from consumptive use consistent with information developed in the Project Implementation Report, indicating appropriate timing, distribution, and flow requirements sufficient for the restoration of the natural system.

The agreement, signed by President George Bush and Governor Jeb Bush, represents a significant and lasting step toward achieving the goals and objectives of the Comprehensive Plan to supply water for the environment and other uses. The agreement requires the State to reserve water from consumptive use after the Army Corps of Engineers issues "Project Implementation Reports" or "PIRs." These PIRs identify the appropriate quantity, timing and distribution of water, on a project specific basis, that is necessary to restore the natural system. In addition, the State agrees to manage its water resources so that the water produced by implementation of the Comprehensive Plan will be available to restore the natural environment as promised. Finally, the State will monitor and assess the continuing effectiveness of the reservations to achieve the goals and objectives of the Comprehensive Plan. On the Federal side of the agreement, the Federal Government will propose appropriations to implement its share of the Comprehensive Plan; initiate authorized project planning and design; and develop information to support the adaptive assessment and management process. On a parallel track, the Department notes that the South Florida Water Management District (District) is moving quickly to develop the policies and procedures that are necessary at the State level to implement the water reservation and assurances requirements for the Comprehensive Plan. We are encouraged by this progress.

In addition to these important steps, the programmatic regulations are well on their way toward completion with the official public comment period on the proposed draft ending on October 1. We appreciate the Army Corps' efforts to provide for a large amount of public input into the development of the draft regulations through a series of public meetings, including meetings of the Task Force, and the release of an initial draft of the regulations late last year. The Army Corps' process reflects, in our view, a successful effort to achieve the necessary consultation and communication among all the parties that is necessary to achieve the conservation results required by WRDA 2000. As Secretary Norton stated earlier this year, long-term collaboration is the key to the success of our Everglades restoration efforts. The process used to develop the draft programmatic regulations is a good start toward the collaborative effort that will be necessary to implement the Comprehensive Plan's individual project features.

As you know, WRDA 2000 requires the Secretary of the Interior and the Governor of Florida to concur in the issuance of the final programmatic regulations. Generally, we believe the draft regulations now undergoing public review are consistent with WRDA 2000 requirements, which include: (1) providing for the development of projects and project related documents to ensure achievement of the goals and objectives of the Comprehensive Plan; (2) integrating new information into the Comprehensive Plan through principles of adaptive management; and (3) ensuring the protection of the natural system.

Key provisions of the draft programmatic regulations ensure both a strong Departmental voice in the restoration process, as well as the necessary interagency collaboration. Provisions requiring concurrence of the Secretary of the Interior and the Governor include the following six Army Corps guidance memoranda: (1) the format and content of Project Implementation Reports (PIRs); (2) instructions for Project Delivery Team evaluation of PIRs; (3) guidance for system-wide evaluation of PIR alternatives; (4) the content of operating manuals; (5) directions for RECOVER (interagency scientists) assessment activities; and (6) instructions in PIRs to identify the appropriate quantity, timing and distribution of water to be dedicated and man-

aged for the natural system. Additionally, the Department has a strong role supporting interagency science efforts in implementing the Comprehensive Plan. The Department serves as a member of the RECOVER leadership group and co-chair of 4 of the 6 RECOVER sub-teams that have been established to date, and the draft regulations propose that this role continue. Overall, the Department's role reflects the partnership approach of WRDA 2000 and ensures that our technical expertise will be incorporated early in the planning process.

In addition to having a strong role in developing the guidance memoranda, the Department will have a concurring role in developing the pre-CERP base line, which will establish the hydrologic conditions in the South Florida ecosystem that existed on the date of enactment of WRDA 2000. Establishing a pre-CERP baseline will be the basis for calculating future project benefits, thereby ensuring achievement of restoration objectives. The pre-CERP baseline is also integral to implementing WRDA 2000's savings clause requirements, which protect a number of different legal sources of water, including legal sources for Everglades National Park and fish and wildlife.

Lastly, to ensure the protection of the natural system, the Department, the Army Corps, and the State of Florida will jointly establish interim goals. Interim goals are key to monitoring and evaluating restoration success. The draft regulations propose a process where RECOVER (interagency scientists) will develop interim goals as measurable hydrologic targets, anticipated ecological responses and water quality improvements. Next, the draft regulations propose that the Department, the Army, and the State of Florida execute an interim goals agreement to establish an initial suite of interim goals, with public notice and comment, by December 2003. This approach ensures the most recent and best available science will be used to develop the interim goals. We believe it is appropriate for RECOVER to continue its update to the performance measures for Everglades restoration and, in doing so, consider all available information, including updated hydrologic information and models and ecological baseline data.

Overall, the draft programmatic regulations lay a solid regulatory foundation to guide the implementation of the Comprehensive Plan over the next four decades. Further, the draft regulations provide measures of accountability to safeguard the Federal tax-payer's investment in a restored Everglades. The Army Corps has strived to develop regulations that provide agencies with the necessary flexibility to adapt to changing circumstances and principles of adaptive management embraced by the Comprehensive Plan, while at the same time prescribing procedures to ensure consistency of restoration objectives among all the components of the Comprehensive Plan. Together with the binding agreement between the United States and the State of Florida, the programmatic regulations represent a complete package of legal assurances to achieve a restored Everglades. We look forward to continuing our collaboration with the Army Corps through to the final issuance of the regulations.

Efforts to preserve and protect natural habitat

In addition to supporting measures to increase water supplies for the environment, the Department is actively implementing other actions to preserve and protect Everglades habitat.

These include acquiring State and Federal lands for habitat protection and improvement and eradicating invasive exotics. I am pleased to report that we have nearly completed acquiring the lands for the East Everglades expansion area of Everglades National Park, an effort that began over a decade ago. Once that acquisition is fully complete, the park will begin updating its general management plan to ensure the permanent protection and preservation of this important resource.

Earlier this year we announced an agreement in principle to acquire the mineral rights under Big Cypress National Preserve, Florida Panther National Wildlife Refuge, and Ten Thousand Islands National Wildlife Refuge from Collier Resources Company. This action will ensure long term conservation of the western Everglades and safeguard the $8 billion taxpayer investment in the Comprehensive Plan by avoiding the surface disturbance that would accompany oil and gas development. The acres affected by the agreement are home to several endangered and threatened species, including the Florida panther, American crocodile, red-cockaded woodpecker, and manatee. We are presently working out the details of a final acquisition agreement, which we hope to complete very soon.

Equally important to our own efforts is our financial partnership with the South Florida Water Management District (District) to acquire lands for Everglades restoration purposes. Land is the single biggest physical constraint to the implementation of the Comprehensive Plan, as the District must acquire about 110,000 acres over the next 5 years at an estimated cost of $920 million, or $184 million per year.

Since 1996, the Department has contributed approximately $320 million to the District for the purpose of acquiring high priority lands for the Comprehensive Plan, including the Talisman and Berry Groves acquisitions. Later this month, I expect Secretary Norton to approve another $15 million grant to the District for the purchase of high priority projects supporting the Comprehensive Plan, including the Indian River Lagoon and the East Coast Buffer/Water Preserve Areas. The Indian River Lagoon features are intended to reduce the impact of watershed runoff to estuaries by reducing the number and frequency of high volume discharges from Lake Okeechobee through drainage canals and restoring historic flow patterns of the river. Similarly, the East Coast Buffer is important to establishing a lineal transition between Everglades habitats to the west and urban developed areas to the east.

Another significant milestone in our ongoing effort to preserve and protect habitat was the signing of a new license agreement with the District for the A.R.M. Loxahatchee National Wildlife Refuge. The new license agreement, which was completed in July, includes additional commitments to take aggressive action to reduce infestations of Old World climbing fern, melaleuca, and other invasive exotic species. Efforts to eradicate invasive exotics on other Interior-managed lands continue.

Protection and recovery of threatened and endangered species

Over the last decade the Fish and Wildlife Service has been actively cooperating with other Federal, State, tribal and local agencies and expert scientists in ensuring protection for the 69 threatened and endangered species that make the Everglades their home. The Fish and Wildlife Service is employing a landscape-level approach to reverse the decline of threatened and endangered species and implement the steps necessary to conserve both the species and the habitat upon which they depend. This approach is exemplified by a comprehensive recovery initiative, called the Multi-Species Recovery Plan for the Threatened and Endangered Species of South Florida (MSRP).

Implementation of the MSRP emphasizes multi-party cooperation and the use of the best available science; it has already benefited numerous species. For example, in cooperation with the Florida Keys community, the Fish and Wildlife Service established the National Key Deer Wildlife Refuge to protect habitat for the endangered Key deer. Using additional funds supplied by the Department earlier this year, the Service will translocate one deer population from the core area on Big Pine Key to achieve the MSRP goal of three stable populations. If successful, this effort will result in the reclassification of the deer from endangered to threatened. In conjunction with this effort, the Service is cooperating in the preparation of a Habitat Conservation Plan (HCP) for the Key deer which will provide added protection for this species and certainty to the residents of the Florida Keys for building permits, infrastructure improvements and road construction.

In another example, the Service has been working in cooperation with expert scientists to augment the Keys population of the endangered Schaus swallowtail butterfly. This effort includes a captive breeding program, habitat preservation initiative, and the use of Safe Harbor agreements. These agreements are established in cooperation with private land owners to enhance habitat for the species while protecting the private landowners from any increase in regulatory burden from increased numbers of endangered species on their property.

Other threatened and endangered species conservation efforts include development of large-scale HCPs for the conservation of the Florida scrub-jay and three species of sea turtles in cooperation with Indian River and Sarasota counties and a landscape approach to conservation of the endangered Florida panther utilizing a recognized panel of experts. To date, the panel has identified all land in south Florida south of the Caloosahatchee River that is essential for the continued conservation of panthers in this region, as well as a landscape linkage to provide for population expansion. As a result of this effort, the Service is working with the State and private partners to develop conservation incentives for landowners.

Obtaining the best available science to guide management decisions

The Department's bureaus have been long-term partners with other Federal and State agencies, tribes, and local governments in developing water-related, geologic, biologic, land use and mapping studies contributing to the long-term viability and restoration of the Everglades. As the restoration effort proceeds, we have an obligation to ensure that we use the best available science in managing our programs and resources. Fiscal accountability also demands that we focus our science on the questions that need to be answered to achieve Everglades restoration goals. We are taking a number of actions to achieve these results. For example, earlier this year the National Park Service, Fish and Wildlife Service and the U.S. Geological Survey entered into a memorandum of understanding to integrate and facilitate coordination

of agency science programs to obtain the best available research products and monitoring and assessment tools responsive to the needs of our land management agencies. To facilitate implementation and coordination of our science, the U.S. Geological Survey will be leading a multi-agency and tribal Science Coordination Council consisting of senior managers from each relevant bureau within the Department, the State, and the tribes. The council will be responsible for identifying priority science-related management questions and for ensuring science coordination with our multiple greater Everglades restoration partners.

In addition, the U.S. Geological Survey is developing an overall science plan supporting restoration of the greater Everglades ecosystem. The science plan will improve our ability to manage our science program in concert with our Federal and State partners. We expect to have a draft of this science plan available for review very soon.

Most importantly, we are committed to implementing the independent science provisions of WRDA 2000. Discussions are underway at the Federal level and we look forward to working with our State partners and the Task Force to set up the independent science review panel required by WRDA 2000.

Modified Water Deliveries Project

As the committee is aware, WRDA 2000 requires completion of the Modified Water Deliveries project before construction funds are appropriated for certain Comprehensive Plan elements, including the Water Conservation Area 3 Decompartmentalization project. As envisioned by Congress in the 1989 Everglades National Park Protection and Expansion Act, the Modified Water Deliveries Project is crucial to restoring more natural water flows for the 110,000 acres of East Everglades habitat that were added to Everglades National Park, thereby ensuring the ecological integrity and long-term viability of park resources. The completion of the Modified Water Deliveries project is on hold due to litigation. Completion of that project will safeguard the Federal taxpayers' $104 million investment in acquiring the East Everglades, as well as the $160 million expended to date to implement the Modified Water Deliveries project, and is consistent with future actions to be undertaken under the Comprehensive Everglades Restoration Plan.

South Florida Ecosystem Restoration Task Force

Finally, speaking as Chair of the South Florida Ecosystem Restoration Task Force, I would like to briefly describe how the Task Force is contributing to the restoration effort. This month the Task Force will be publishing its revised Strategy for Restoration of the South Florida Ecosystem and Biennial Report to Congress, the second of such reports. I am pleased to provide the committee with pre-publication copies of this document, which updates information submitted by the Task Force in July 2000 and describes the restoration and coordination efforts of the Task Force member entities.

During the last year, the Task Force provided a constructive forum to discuss development of the Army Corps' programmatic regulations. We devoted several Task Force meetings in South Florida and Washington, DC. to key elements of the regulations, including interim goals and the pre-CERP baseline. Future Task Force meetings will focus on the independent scientific review required by WRDA 2000, continued development of our land acquisition strategy, and flooding issues. The Task Force provides an effective forum for candid discussions of differing views. It is my hope that the Task Force will continue to provide a forum for collaborative decisionmaking and public input on Everglades restoration.

In closing, Mr. Chairman, I believe we have an historic opportunity before us to save a national treasure for future generations, while also ensuring south Florida's future viability. Certainly, this is an environmental project of unprecedented scope and scale. Congress itself recognized the uncertainties involved in such an undertaking. The Comprehensive Plan envisions the use of new technologies; equally significantly, it provide for the application of adaptive management to address those uncertainties.

We will face many challenges over the next several decades as we implement the Comprehensive Plan, but we are well positioned to succeed. First, we have a high degree of collaboration among the State of Florida, the Federal Government, and concerned citizens. We have forums, including the Task Force and the South Florida Water Management District's Water Resources Advisory Commission, to share ideas, develop common and consistent restoration policies, and resolve problems before they create insurmountable road blocks to progress. Second, we have developed important legal assurances, including the binding assurances agreement and the programmatic regulations, to guide our efforts to achieve our Everglades restoration goals. Third, the work to implement the specific project features authorized by

WRDA 2000 is underway. We have made progress toward implementing specific project features by forming the project delivery teams and acquiring the necessary lands. Finally, efforts to improve water quality are underway; habitat is being protected and restored; and we are taking action to recover species.

In the last decade alone, the Federal and State governments have made significant progress on the road to a renewed Everglades, indicating that we have the tools to achieve restoration success. We need to encourage and continue the dialog among all the affected parties and entities that wish to restore the Everglades. Working together, we can and will achieve our Everglades restoration goals. As Secretary Norton noted earlier this year, long-term collaboration is the key to our success.

Mr. Chairman, this concludes my statement. Thank you for the opportunity to address the committee on this important effort. I am pleased to answer any questions you or the other members of the committee may have.

RESPONSES OF ANN KLEE TO ADDITIONAL QUESTIONS FROM SENATOR GRAHAM

Question 1. Can you describe what will happen to the Everglades if no action is taken on CERP?

Response. Based on information contained in the Restudy and ongoing scientific assessments in the South Florida, the natural system will continue to decline if no action is taken to implement the Comprehensive Everglades Restoration Plan (CERP or Plan). The degradation of the natural system could contribute to water shortages, causing negative effects throughout the South Florida ecosystem, including coastal and marine areas. Impacts to the natural system, while potentially considerable would be but one result, as local economies may be affected, and it could result in inadequate flood protection.

Specific examples of the impacts to wildlife and park resources if CERP is not implemented include an inability to improve the quantity, timing and distribution of water to Everglades natural areas, many coastal estuaries and other areas such as the Florida Keys National Marine Sanctuary. This will continue present degraded conditions, which continue to result in loss of Everglades and other habitats over wide parts of the ecosystem. Additionally, if no action is taken to restore natural hydroperiods, then our ability to take action to recover the 68 threatened and endangered species that reside in the Everglades will be diminished.

In terms of Everglades National Park alone, increased volumes of flow into the park are expected to reestablish about 75 percent of predrainage volumes of water flows into the park and the downstream estuaries. Anticipated ecological responses to increased duration of hydroperiods into the Shark River Slough Basin should improve the diversity and abundance of fish and macroinvertebrates in the marsh, thereby reestablishing population and distribution patterns of wading birds, freshwater fish and invertebrates and alligators in freshwater wetlands and estuaries. Additionally, increased volumes of water, with appropriate timing and distribution, should also assist in restoring the ridge and slough patterns in the historic Everglades habitat and increase the spatial extent of peat-forming aquatic plant communities in Shark Slough while sustaining the number and diversity of tree islands.

Similarly, by reducing the devastating pulses of water to the coastal estuaries and capturing water that is presently flushed to tide, CERP implementation promises to reestablish seasonal, climate-based patterns of salinity in coastal estuaries and bays, thereby enabling coastal ecosystems to regain their historic role in supporting large wildlife and fish populations. This is extremely important for federally designated conservation areas including the Florida Keys National Marine Sanctuary, Biscayne National Park and Florida Bay, which is part of Everglades National Park.

Lastly, CERP efforts that target seepage management along the L–31 North levee should improve water deliveries to Everglades National Park, thereby restoring wetland hydropatterns and habitat for a variety of species. Similarly, if CERP decompartmentalization features to reestablish ecological and hydrological connections between Water Conservation Area 3A and 3B and Everglades National Park and Big Cypress National Preserve are delayed, then the ability to restore habitat and recover species will be unrealized.

Question 2. What actions does Congress need to take in the near and distant future to move the CERP forward?

Response. To move CERP forward it is important that Congress appropriate requested funds to the U.S. Army Corps of Engineers (Corps) so that the initial suite of authorized projects may move forward. Additionally, it is important that Congress appropriate requested funds to the Department of the Interior (Department), the Department of Commerce (National Oceanic and Atmospheric Administration), and other Federal agencies involved in the CERP effort, including requested funds for

land acquisition assistance to the State of Florida. Other necessary future actions include providing legislative authorization for future projects and appropriate congressional oversight.

Question 3. Can you describe your view of the role of Interior as described in the programmatic regulations?

Response. The Department's role in the proposed programmatic regulations is consistent with the Water Resources Development Act of 2000 (WRDA 2000). Interior Department agencies will be involved early in the planning process and throughout CERP implementation so that the restoration goals of the Plan will be realized. As steward of nearly 50 percent of the remaining historic Everglades, the Department's resource agencies — the National Park Service, Fish and Wildlife Service and the U.S. Geological Survey — are full partners in the restoration effort. The role provided Departmental agencies under the programmatic regulations will result in the consideration and incorporation of their special expertise.

The Department will also jointly develop and adopt, along with the State of Florida and the Department of the Army, interim goals by which the restoration success of the Plan may be evaluated. The proposed programmatic regulations require interim goals to be expressed as hydrologic indicators and anticipated ecological responses and adopted in a three party agreement by December 2003, thereby allowing the best available science to be used in developing the goals through an inclusive public process.

The Secretary of the Interior (Secretary) is provided a concurrence role on six guidance memoranda. These guidance memoranda include: general format and content of the Project Implementation Reports (PIR); instructions for Project Delivery Team evaluation of alternatives developed for PIRs, their cost effectiveness and impacts; guidance for system-wide evaluation of PIR alternatives by restoration, coordination, and verification (RECOVER); general content of operating manuals, general directions for the conduct of the assessment activities of RECOVER; and instructions relevant to PIRs for identifying the appropriate quantity, timing, and distribution of water dedicated and managed for the natural system.

In addition, the Department will have a concurrence role on the proposed pre-CERP baseline, which will describe the hydrologic conditions in the South Florida ecosystem that existed on the date of enactment of WRDA 2000. The pre-CERP baseline will serve as a benchmark upon which progress toward restoration will be evaluated.

Moreover, the regulations give the Department an important consulting role throughout implementation of the program including, among other things, participation on Project Development Teams; membership on the RECOVER leadership team and consultation on the following: development of the Adaptive Management Program; selection and revision of hydrologic models; development of Project Management Plans; development of Project Implementation reports; development of Operating Manuals; development, review and revision of changes to the Master Implementation Sequencing Schedule; recommending and developing Comprehensive Plan Modification Reports; and developing means for monitoring progress toward other water-related needs of the region as provided in the Plan. Finally, the role of science has also been strengthened and the Department will participate in the establishment of an independent scientific review panel to review the Plan's progress toward achieving the natural system restoration goals.

Overall, the Department believes the programmatic regulations meet the intent of WRDA 2000 and provide a strong role for the Department through every phase of CERP planning, implementation, and evaluation.

Question 4. Can you describe the impacts on Interior landholdings impacted by Everglades restoration if no action is taken?

Response. As noted above, based upon information in the Restudy and ongoing scientific assessments in South Florida, if no action is taken to restore the Everglades, the ecological health of the lands managed by Departmental bureaus will likely continue to deteriorate to the point where the lands and the resources located there are not sustainable for the future. Without action to increase the quantity of water, with appropriate timing and distribution, for environmental purposes, the habitat and the functional quality of habitat managed by the Department will continue to be degraded and native plants and species abundance and diversity will continue to decline.

Question 5. Can you describe your communication with Corps during development of the regulations? Has it been adequate?

Response. Since the release of an initial draft of the regulations on December 28, 2001, the Department has worked closely with the Corps, the State of Florida, and other stakeholders to ensure that the regulations achieve the primary Federal inter-

est in the Plan: restoration of the natural system. We are pleased with the continuing cooperation between the Army and the Department, and believe that we can successfully work together to achieve the best result in the programmatic regulations.

Question 6. How do you see the role of the Task Force evolving with the heavy dependence on RECOVER during Plan implementation? Is the body still needed?

Response. The Task Force is an important forum to share ideas, develop common and consistent restoration policies, and resolve problems before they create insurmountable roadblocks to progress. As proposed in the programmatic regulations, the Task Force will continue to provide a constructive and effective forum for collaborative decisionmaking and public input on Everglades restoration.

As established by Congress, the Task Force is comprised of the Departments of Interior, Commerce, Army, Justice, Transportation, and Agriculture, and the Environmental Protection Agency, as well as the Seminole and Miccosukee Tribes of Florida, the Office of the Governor of the State of Florida, the Florida Department of Environmental Protection, the South Florida Water Management District, and two representatives of local governments. A major aspect of the CERP outreach program is seeking input from the public and other stakeholders on CERP development and implementation. Throughout the duration of CERP implementation, the Task Force and its Florida based Working Group will be utilized as a means for RECOVER and the CERP Project Delivery Teams to provide information to member entities and the public.

Another important role of the Task Force is to coordinate scientific and other research associated with the restoration of the South Florida Ecosystem. The Task Force is also addressing the issue of scientific uncertainties inherent in the CERP through a strategic approach of organization of science staff from cooperating agencies and independent peer review of science programs and applications.

Question 7. Can you provide for the record a list of the Federal holdings involved in Everglades restoration?

Response. The Federal Government manages a significant portion of lands in the South Florida ecosystem that will be affected by Everglades restoration efforts. For example, the Department's holdings in South Florida include four national parks and 15 national wildlife refuges (NWR), including Everglades National Park; Dry Tortugas National Park; Biscayne National Park; Big Cypress National Preserve; Arthur R. Marshall Loxahatchee NWR; J.N. "Ding" Darling NWR; Island Bay NWR; Pine Island NWR, Caloosahatchee NWR; Matlacha Pass NWR; Florida Panther NWR; Ten Thousand Islands NWR; National Key Deer NWR; Great White Heron NWR; Key West NWR; Crocodile Lake NWR; Pelican Island NWR; Archie Carr NWR; Lake Wales Ridge NWR; and Hobe Sound NWR.

Other Federal holdings include Florida Keys National Marine Sanctuary, Key Largo National Marine Sanctuary, Looe Key National Marine Sanctuary and Rookery Bay National Estuarine Research Reserve.

Question 8. What is the status of the independent scientific review called for in WRDA 2000?

Response. The Department is working with the Corps and the State of Florida to implement the independent science provisions of WRDA 2000, including discussions with the South Florida Ecosystem Restoration Task Force.

Question 9. According to the Administration's Climate Action Report 2002," . . . the natural ecosystems of the Arctic, Great Lakes, Great Basin, and Southeast, and the prairie potholes of the Great Plains appear highly vulnerable to the projected changes in the climate." In addition, that report says due to a projected rate of sea level rise from 4–35 inches over the next century, with mid-range values more likely, estuaries, wetlands and shorelines along the Atlantic and Gulf coasts are especially vulnerable. What consideration has been given in the development of the long-term plan for the restoration of the Everglades to the effects of global warming and sea-level rise?

Response. During the development of the CERP, the Corps modeled the sensitivity of the Central and Southern Florida Project to sea level rise resulting from global warming. Analysis showed that sea level rise had the most impact on coastal canals and communities, with the loss of flood protection and intrusion of salt water being the primary impacts. Performance measures for the interior of the South Florida ecosystem were less affected.

RESPONSES OF ANN KLEE TO AN ADDITIONAL QUESTION FROM SENATOR CHAFEE

Question. What is the importance of the pre-CERP baseline to the restoration of the Everglades system? What factors are considered in the development of the baseline?

Response. The pre-CERP baseline will allow the agencies to implement the savings clause provisions of WRDA 2000, as well as provide a benchmark for calculating achievement of project benefits by measured increases to the overall water supply. As such, it is an important measure of accountability for Federal and State agencies. Discussions among Federal and State agencies concerning the pre-CERP baseline are now underway. Factors being considered in its development include identifying existing legal source basins, quantifying the volume of water available to existing legal source basins under rainfall conditions, and selecting performance measures.

RESPONSES OF ANN KLEE TO ADDITIONAL QUESTIONS FROM SENATOR INHOFE

Question 1. Could Everglades restoration be accomplished with any of the flood protection alternatives for the 8.5 SMA?

Response. In reevaluating the flood protection alternatives for the 8.5 SMA, the Army Corps of Engineers evaluated 11 alternatives. All of the alternatives that were evaluated by the Corps mitigated for the increased water flows associated with the implementation of the Modified Water Deliveries Project. However, some alternatives, including Alternative 6D, were found to be more consistent than others with efforts to restore more natural water flows to Northeast Shark River Slough, as well as other future Everglades restoration efforts associated with implementing the Comprehensive Everglades Restoration Plan.

Question 2. What Modified Waters components can go forward without completion of the construction of flood protection for the 8.5 SMA?

Response. None of the remaining Modified Water Deliveries Project components can be operated until the completion of the flood protection system for the 8.5 SMA.

Question 3. Why are the other components dependent upon completion of the 8.5 SMA project? Is there any other way in which Everglades restoration is meaningfully dependent on completion of flood protection for the 8.5 SMA?

Restoration of a more natural hydroperiod for Northeast Shark River Slough within Everglades National Park would be accomplished by conveying water from the water conservation areas north of the park into the expansion area, or Northeast Shark River Slough. The 8.5 SMA is immediately adjacent to the expansion area, but is currently not provided any flood protection. An increase in water levels due to the conveyance of water into Northeast Shark Slough — through the construction of conveyance features between Water Conservation Area 3A and 3B and raising Tamiami Trail — would aggravate the flooding problem in the 8.5 SMA. Therefore, completion of the 8.5 SMA flood protection system is required before any additional components are completed and additional flows are put into Northeast Shark River Slough.

Additionally, in WRDA 2000, Congress directed the completion of the Modified Water Deliveries Project prior to appropriating construction funding for a number of key CERP components, including the Water Conservation Area decompartmentalization project.

Question 4. What is the timeline for completion of these components?

Response. The schedule for completion of the Modified Water Deliveries Project, as well as the completion of an operational plan, is now uncertain given the recent litigation.

Question 5. What was the original timeline for completion of Modified Waters?

Response. When the General Design Memorandum was completed in 1992, the construction was scheduled to occur from 1993 through 1997.

Question 6. What alternatives for the 8.5 SMA would meet this timeline?

Response. The Corps initiated its Supplemental Environmental Impact Statement (SEIS) on this project in 1999. As noted above, the schedule for completion of this project is now uncertain given recent litigation.

Question 7. Rank the alternatives in the July 2000 Final Supplement to the Final EIS on the 8.5 SMA ("FEIS") for constructing flood protection for the 8.5 SMA project in terms of time for completion?

Response. Based on the table provided on page C–71, Appendix C, in the Final Environmental Impact Statement (FEIS), the following alternatives are grouped by their respective construction completion dates:

Alternative 4 (Landowner's Choice Land Acquisition Plan)	December 2002
Alternative 5 (Total Buy-Out Plan)	December 2002
Alternative 7 (Raise All Roads Plan)	September 2003
All other Alternatives (including 1 and 6D)	December 2003

It should be noted that the construction completion dates noted above would need to be revised following resolution of legal matters associated with the implementation of Alternative 6D, which proposes to move the design for the exterior levee and seepage canal eastward relative to the original 1992 design, resulting in the public acquisition of the about one-third of the westernmost portions of the 8.5 Square-Mile-Area and flood protection for the remaining 8.5 Square-Mile-Area lands.

Question 8. How much acquisition of land is still required to implement each of the alternatives?

Response. The Department respectfully defers to the Corps with regard to this question.

Question 9. Explain the reasons for differences in time of completion. Assume when ranking these alternatives that Congress authorizes each alternative to commence immediately.

Response. The differences in time of completion are due to two components, time for land acquisition and time for construction. Therefore, alternatives that involve only land acquisition, Alternatives 4 and 5, can be implemented sooner than alternatives requiring a combination of land acquisition and construction.

Question 10. How many residences, including those that are owner-occupied and those that are occupied by someone other than the owner, would the Corps have to acquire to implement Alternative 6D?

Response. According to the Corps, seventy-seven (77) residential parcels are required for implementation of Alternative 6D, inclusive of owner and renter occupied residences. The Corps has estimated that about 10 residences would need to be acquired by eminent domain.

Question 11. Explain in detail why Alternative 6D relating to the 8.5 SMA project is called the "Buffer Plan" in environmental documents?

Response. The primary hydrologic consequence of implementing the original 1992 General Design Memorandum (GDM) plan (Alternative 1) was the lowering of restored water levels within Everglades National Park due to the close proximity of the canal to the park. By moving the canal some distance from the park boundary, the impacts can be reduced or eliminated. With this in mind, Alternative 6D relocates the canal further eastward, allowing the desired levels of restoration to be attained in the park, but preventing the desired level of mitigation for some lands in the 8.5 SMA immediately adjacent to the park. Because these lands will be not be completely restored or mitigated, they have been referred to as "buffer" lands. Lands east of the buffer region will receive mitigation; lands west of the buffer will be restored. Because Alternative 6D utilizes this concept, it has been referred to as the Buffer Plan.

Question 12. Explain what a "buffer" has to do with modifying water deliveries to Everglades National Park?

The buffer concept recognizes that in order to achieve the desired hydrologic conditions for both restoration (generally, higher water levels) and flood protection (generally, lower water levels), lands are needed in order to transition from one land use type to the other. This concept is also an integral part of the C–111 Project, which is designed in part to restore the Taylor Slough, Rocky Glades, and Eastern Panhandle regions of the park, as well as provide flood protection for lands to the east.

Question 13. If Congress does not enact legislation to authorize Alternative 6D or otherwise direct the Corps' resolution of the issue, what courses of action can and will the Corps take to complete Modified Waters?

Response. While the Department is aware that the Corps has appealed a recent adverse district court decision on this issue, the Department respectfully defers to the Corps with regard to this question.

Question 14. Of the alternatives considered in the FEIS, what is the Corps' second choice after alternative 6D?

Response. The Department respectfully defers to the Corps with regard to this question.

Question 15. What is the Corps' third choice?
Response. The Department respectfully defers to the Corps with regard to this question.

Question 16. Does the FEIS state that each alternative, including Alternatives 1 and 2(b), meets the ecological goals of the Modified Waters project?
Response. The FEIS does not contain that conclusion, but notes that each of the project alternatives would meet some of the ecological goals of the Modified Water Deliveries Project. The FEIS does conclude, however, that Alternative 6D results in greater restoration of more natural hydropatterns in Northeast Shark Slough and greater increases in wetland function and benefits for endangered species when compared to the original plan for these same criteria.

Question 17. Is it accurate to say that Alternative 6D will cost about $58,000,000 more than Alternatives 1 or 2(b)?
Response. The Department respectfully defers to the Corps with regard to this question.

Question 18. Why should the Federal Government force families to leave their homes and have taxpayers pay for an incomplete flood protection alternative that costs $58 million more than a plan that provides full flood protection, meets the ecological goals of Modified Waters and forces no one from their homes?
Response. The decision to select Alternative 6D represents a balancing of competing goals, including achieving more natural water flows for the East Everglades Addition to Everglades National Park, while at the same time providing flood protection to adjacent lands. The decision to select Alternative 6D was made after years of State and Federal review and represents middle ground from alternative that would have resulted in full acquisition of the area to alternatives that would restore inadequate flows to Northeast Shark River Slough. The recent analysis by the Corps of Engineers supporting the selection of Alternative 6D noted that this alternative achieved the greatest degree of environmental benefits at about one-half the cost of fully acquiring the area, while impacting only 17 percent of the owner occupied residences.

Question 19. If it is not accurate to say that Alternative 6D will cost $58 million more than Alternatives 1, and 2(b), why is that so?
Response. The Department respectfully defers to the Corps with regard to this question.

Question 20. What are the cost estimates of these alternatives?
Response. The Department respectfully defers to the Corps with regard to this question.

Question 21. If you estimate the cost for Alternative 6D—which requires substantial property acquisition—is similar to or greater than the costs of the other alternatives—which do not—explain why and provide a detailed explanation of the basis for your cost estimates.
Response. The Department respectfully defers to Corps with regard to this question.

Question 22. What has the Department of the Interior ("DOI") told the Corps about whether DOI will release funds for the project if the Corps pursues Alternatives 1 or 2(b)?
Response. Since the selection of Alternative 6D, the Corps has not requested funding from the Department for the implementation of any other alternative. Although the former superintendent of Everglades National Park noted several years ago that he could not recommend the original design (Alternative 1) for funding, the Department has not taken an official position on this matter with the Army Corps. Rather, the Department has supported the Army Corps' efforts to reevaluate the various project alternatives consistent with the goal of restoring more natural water flows to Northeast Shark River Slough while at the same time providing for a flood protection system for the 8.5 Square-Mile-Area.

Question 23. What has the DOI told the Corps about whether DOI will release funds for any alternative other than Alternative 6D?
Response. The Department has not discussed funding any other alternative with the Army Corps. Since the Corps' selection of Alternative 6D, the Department has requested funds from Congress for the implementation of Alternative 6D and these funds have been appropriated.

Question 24. Is one of the reasons that the Corps selected Alternative 6D that the Department of the Interior resisted funding Alternative 1? What, if any, other obstacles exist to implementation of Alternatives 1 or 2(b)?
Response. The Department respectfully defers to the Corps with regard to this question.

Question 25. What are the hydrological differences between taking no action (no modified water deliveries) on the one hand, and adopting Alternative 1, Alternative 2(b), or Alternative 6D on the other hand. Specifically address for each alternative:

Response. Two hydrological performance measures illustrate these differences, (a) decreases in Northeast Shark River Slough hydroperiod and (b) decreases in Northeast Shark Slough water depth. "Hydroperiod decreases" are defined as the areal extent within Northeast Shark Slough where decreases in the duration of water over the surface of the land were found when compared to the "without project" condition. "Water depth decreases" are defined as the areal extent within Northeast Shark Slough where decreases in water depth were found when compared to the "without project" condition. In both cases, the lower the number, the higher the degree of restoration. Results from hydrologic modeling were as follows:

Performance Measure	Alternative		
	1 (1992 GDM)	2B	6D
Decreases in hydroperiod (acres)	1114	1428	0
Decreases in water depth (acres)	2707	2489	0

These results indicate that alternative 6D appears superior to both alternatives 1 and 2B for these two performance measures because no decreases in hydroperiod or water depth are anticipated following implementation.

Question 26. How much more water will there be and where will that water be?

Response. The primary objective of the Modified Water Deliveries Project is to rehydrate the Northeast Shark Slough portion of Everglades National Park. While all alternatives meet this objective, the alternatives accomplish this with varying degrees of success. Based on information presented in the Fish and Wildlife Coordination Act Report (included in the FEIS as Appendix G), the total increase in the volume of water in Northeast Shark Slough following restoration would be 21,519 acre-feet. In order to meet the mitigation requirements of the project, Alternative 6D would reduce this restored volume by approximately 889 acre-feet. However, this is significantly less than the 6,979 acre-feet reduction under implementation of Alternative 1.

Question 27. How much of the additional water will be in the Park and how much will be outside of the Park?

Response. With the implementation of Alternative 6D, the additional water will be largely confined to the park and portions of the 8.5 SMA west of the perimeter levee. Some additional increase in water levels will occur during wet periods, but these effects will be mitigated either by the other structural features or through the purchase of flowage easements.

Question 28. What measurable difference will that extra water make for plants, wildlife, and other environmental indicators?

Response. The extra water will likely lead to improvements to plants, wildlife, and other indicators as indicated by changes in wetland function summarized in the Fish and Wildlife Coordination Act Report (FEIS, Appendix G). Wetland functional analysis includes such variables as wildlife utilization, wetland overstory/shrub canopy, wetland ground cover, wetland hydrology, and water quality. Based on an interagency analysis of these variables, the change in wetland functional units due to the implementation of Alternative 6D amount to an increase of 1,322 functional units above existing conditions. This is in marked contrast to Alternative 1, which result in a loss of 2,765 functional units compared to the existing condition.

Wetland function was evaluated using wetland functional units, which combine wildlife, plant and other wetland values. For Alternative 6D, a 9.9 percent increase in wetland functional scores is predicted relative to existing conditions. This contrasts with Alternative 1, which predicted a 20.6 percent decrease in wetland functional units.

Question 29. Where exactly will those measurable differences occur?

Response. Measurable differences should occur throughout Northeast Shark Slough, and in the transitional lands between Everglades National Park and the western perimeter levee within the 8.5 SMA. For Alternative 6D, 60 percent of the improvement relative to the old plan is predicted to be in Everglades National Park wetlands adjacent to the 8.5 SMA, with the rest of the wetland improvements contained within the 8.5 SMA.

Question 30. What is the measurable ecological significance of those differences?

Response. Stress from reduced flows in Northeast Shark River Slough has converted historic peat soil-forming wetlands, which provide crucial dry season refuges for fish and wildlife, to drier marl-soil forming conditions. Alternative 6D is predicted to add 1,309 acres of peat forming wetlands, nearly a 70 percent increase over existing conditions. Alternative 1 would have decreased peat-forming wetlands by 543 acres, a reduction of 29 percent. Increases in hydoperiods and water depths in Northeast Shark River Slough will most likely increase the abundance of freshwater fish and macroinvertebrates within the marshes of Northeast Shark River Slough. Increases in these species are critical to the creation of the prey base needed to support higher order organisms such as alligators and wading birds. In addition, other ecological differences include the effects on endangered species, particularly the endangered Wood Stork and Snail Kite. Significant increases in wood stork habitat and snail kite habitat would result from the implementation of Alternative 6D. The increases in habitat associated with Alternative 6D are only surpassed by alternatives requiring additional land acquisition, such as Alternatives 4 and 5.

Question 31. Would building the levee and seepage canal another mile to the east in the 8.5 SMA change the hydrological results?

Response. Yes. If the canal were moved one mile to the east, the location would correspond to the alignment of the L–31N canal. This would be the equivalent of eliminating the interior drainage canal and closely correspond to the analyses associated with Alternative 5, or a Total Buy-Out. As stated in the Fish and Wildlife Coordination Act Report, this alternative provides for full restoration of Northeast Shark Slough.

Question 32. Would acquiring the entire 8.5 SMA and constructing no flood protection change the hydrological results?

Response. Yes. As stated in the FEIS, the Total Buyout (Alternative 5) alternative provides the greatest increase in wetland function, allows for complete restoration of Northeast Shark River Slough consistent with the objectives of the Modified Water Deliveries Project, and provides full flood mitigation and flood protection.

Question 33. When the corps measures the costs and benefits of this project, how does it value hydrological benefits?

Response. The Department respectfully defers to the Corps with regard to this question.

Question 34. How does it measure the costs of removing a person or family from their home? What value does it place on allowing a family to remain in their home protected from flooding?

Response. The Department respectfully defers to the Corps with regard to this question.

Question 35. Did Madeleine Fortin check with the Corps before she bought her home in September 1994? What was she told?

Response. The Department respectfully defers to the Corps with regard to this question.

Question 36. Was the Mod Waters project to start in 1992 with completion no later than 1997?

Response. When the Modified Water Deliveries General Design Memorandum was completed in 1992, the Corps estimated project completion by the end of 1997. However, considerable improvements in hydrologic modeling, as well as the availability of scientific information for defining the restoration requirements of the ecosystem, have been made available in the intervening years. Advances in these areas have provided the Corps with sufficient new information and served as the basis for the decision to reevaluate the original plan.

Question 37. Have many of the families in the 8.5 SMA been flooded in feet of water for months at a time almost every year since 1994?

Response. The Department respectfully defers to the Corps with regard to this question.

Question 38. Was the original congressionally approved plan to cost $39 million?

Response. Based on information provided by the Corps, the original estimate for construction of the 8.5 SMA component of the Project was $31,487,000 in 1991–1992.

Question 39. Would the original congressionally approved plan have avoided removing families from their homes when families want to stay in their homes?

Response. The Department respectfully defers to the Corps with regard to this question.

Question 40. Did the South Florida Water Management District at one time try to get the county to cutoff all electricity to the community?

Response. The Department respectfully defers to the South Florida Water Management District (SFWMD) with regard to this question.

Question 41. Were Metro Dade zoning regulations changed in the 1980's to prohibit new construction on parcels smaller than forty acres?

Response. The Department respectively defers to Miami-Dade County with regard to this question.

Question 42. Are many holdings in the 8.5 SMA less than 5 acres?

Response. The Department respectfully defers to the Corps and the SFWMD with regard to this question.

Question 43. Does the county deny responsibility for the roads in the 8.5 SMA, calling them private roads?

Response. The Department respectfully defers to Miami-Dade County with regard to this question.

Question 44. Does Metro Dade collect property taxes from the 8.5 SMA residents? What services does Metro Dade provide?

Response. The Department respectfully defers to Miami-Dade County with regard to this question.

Question 45. Has Metro Dade blocked attempts by unincorporated areas to incorporate?

Response. The Department respectfully defers to Miami-Dade County with regard to this question.

Question 46. Have fire trucks been impeded from saving burning home(s) by having to travel a very slow mile through 2 feet of water?

Response. The Department respectfully defers to Miami-Dade County with regard to this question.

Question 47. Have there been more than $1 billion in flood-related losses and 14 deaths from preventable flooding throughout the urban and agricultural areas of the county?

Response. The Department respectfully defers to Miami-Dade County with regard to this question.

Question 48. Has anyone from the Corps or the Water Management District been disciplined over the flooding?

Response. The Department respectfully defers to the Corps and the SFWMD with regard to this question.

Question 49. When approached to have the 8.5 SMA's secondary drainage canals to the main system, did a SFWMD official state, "I will never give you a permit!"

Response. The Department respectfully defers to the SFWMD with regard to this question.

Question 50. Did SFWMD vote to try to acquire the entire community, though they did not have the power to condemn land?

Response. The Department respectfully defers to the SFWMD with regard to this question.

Question 51. Was this effort later described as a "miscommunication"?

Response. The Department respectfully defers to the SFWMD with regard to this question.

Question 52. Did one property owner write, "I like to inform you that we do like to sell our land that in accordance with the regulations has become good for nothing?"

Response. The Department respectfully defers to the Corps or SFWMD with regard to this question.

RESPONSES OF ANN KLEE TO ADDITIONAL QUESTIONS FROM SENATOR SMITH

Question 1. Are you concerned that the "targets" for the other water-related needs of the region might be given precedence over restoration goals?

Response. No, the overarching objective of the Plan is the restoration, preservation, and protection of the South Florida Ecosystem while providing for other water-related needs of the region, including water supply and flood protection. Assurances for the natural system have been incorporated into the programmatic regulations. The targets for other water related needs are reference points for which Federal and State managers can measure progress in providing for other water related needs of the South Florida Ecosystem, as required by Congress.

Question 2. When and where can we expect to see the first signs of restoration?

Response. In the short term, implementing rainfall driven operations for the Water Conservation Areas and Everglades National Park will improve the timing and location of water depths in the park, thereby simulating more natural hydroperiods. The hydrologic benefits of restoring Northeast Shark Slough will be evident almost immediately. The ecological responses to the restored hydrological conditions will be much more gradual, with many higher order organisms not showing improvements for many years after restoring the hydrologic conditions.

We anticipate that the St. Lucie River estuary (which is connected to the Indian River Lagoon) will also be one of the first areas that will be benefited. The Ten Mile Creek Critical Restoration Project is beginning construction this year, and this will be the first step in providing water storage to counteract discharges of excessive runoff into this highly productive estuary. This project should start to improve conditions in the North Fork of the St. Lucie River immediately upon completion in 2004.

Another Critical Restoration Project involves construction of a treatment wetland at the Grassy Island Ranch north of Lake Okeechobee. Construction has started, and as soon as construction is completed and water is filtered through the facility, the environmental improvement will be measurable through reduction of phosphorus loads to Taylor Creek, one of the main sources of excessive nutrient loading to Lake Okeechobee.

Seepage management improvements to control seepage from Everglades National Park along the L–31 North levee will improve water deliveries to Northeast Shark River Slough and restore wetland hydropatterns into the park. Additionally, decompartmentalization features are anticipated to reestablish the ecological and hydrological connection between the Water Conservation Areas and Everglades National Park and Big Cypress National Preserve.

Question 3. In your view, what is the greatest impediment to restoration at this point in the process? Where lies the greatest opportunity to ensure immediate results?

Response. The lack of resolving the 8.5 SMA component of the Modified Water Deliveries Project remains an impediment to restoration. Other impediments include loss of Everglades habitat, decline in water quality, and incompatible development. Fortunately, many of these issues are being addressed constructively at the State, Federal, tribal and local level. The greatest opportunity to ensure achievement of our Everglades restoration goals is for all of the parties to work collaboratively together to implement the CERP and the numerous other State, Federal tribal and local programs that are designed to improve and restore habitat, improve water quality, recover threatened and endangered species and foster compatibility of the built and natural systems in South Florida.

RESPONSES OF ANN KLEE TO ADDITIONAL QUESTIONS FROM SENATOR VOINOVICH

Question 1. What have we learned over the last 2 years in terms of potential environmental benefits to be gained by implementation of the Everglades Restoration Plan?

Response. We have identified the need for further development of scientifically sound performance measures and alternative evaluation tools for the assessment of the individual CERP Projects. While some advances have been made in the development of regional performance measures and regional hydrologic models, many of the benefits associated with each individual CERP project will require much more specific project-based performance measures and models.

Question 2. What progress has been made over the last 2 years in terms of science and technology to address the uncertainties inherent in the Everglades Restoration Plan?

Response. Considerable progress has been made over the last 2 years in terms of science and technology to address uncertainties. First, the Interagency Modeling Center is being initiated. In order to "get the water right" and "preserve, protect and restore the natural system", reliable hydrological and ecological models capable of predicting future outcomes of various projects are necessary. To increase the utility of the various models in planning and implementing projects, internal reviews are being conducted. In addition, to increase the reliability of the models, external reviewers are also being utilized. The combination of both internal and external reviews will help increase the certainty of producing useful predictive models. The resulting models will be utilized for a much deeper analysis at the project level to go from preliminary design to detailed design.

Second, the three reports already received from the Committee on Restoration of the Greater Everglades Ecosystem (CROGEE) have assisted us with scientific questions. CROGEE is comprised of independent academic scientists contracted through the National Academies of Science to examine and report to the Task Force on the scientific and technical underpinnings of matters related to ecosystem restoration. The three reports received to date are:

- An assessment of Aquifer Storage and Recovery (ASR) technology including feasibility, water quality, and a review of the pilot projects;
- A technical review of the Project Management Plan for the ASR Regional Study;
- A review of the linkage between upstream components of the Comprehensive Restoration Plan (CERP) and the adjacent coastal and marine ecosystems.

The scientific input from these reports has been incorporated into our plans. Two reports CROGEE will be compiling in the future include:

- An assessment of the ecological indicators of restoration success;
- A review of the hydrological and ecological effects of the size and location of the water storage components proposed in the CERP.

Third, the Restoration, Coordination and Verification (RECOVER) program has been organized under the CERP. Membership of RECOVER includes scientists and resource managers from all the agencies involved in restoration. RECOVER's role includes development of a monitoring and assessment plan to track responses in both the natural and human systems as the CERP projects are implemented. Information from this monitoring will be utilized to support the Adaptive Management Strategy being developed under CERP.

STATEMENT OF HON. DAVID B. STRUHS, SECRETARY, FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION

I am honored to be here to represent Governor Jeb Bush and the State of Florida, your full and equal partner in restoring America's Everglades.

I come bearing news of amazing progress. Only 18-months into a 30-year project and Florida has:

- Already acquired 75 percent of the land needed to build the authorized projects.
- Already secured funding to fully pay our half of the multi-billion dollar bill for the first decade.
- Already entered into a legally binding agreement that requires Florida to reserve water for the environment before Federal dollars are released for projects.
- Already adopted a dispute resolution plan to make sure problems are resolved quickly so progress is not interrupted.

But this hearing is, appropriately, focused more on process than on progress. Here again, there is nothing conventional about Everglades restoration.

In Florida, we are learning a whole new way of doing business to better fit into established Federal procedures. The Federal Government is learning a whole new way of doing business, where no decisions can be made without your State partner. It is interesting to say the least.

At this stage, the Federal Government and Florida are developing the customs and writing the rules aimed at ensuring our "full and equal" partnership is also a practical and sustainable partnership. Everyone is trying to anticipate as many future situations as possible, with questions such as:

- "How will the Corps of Engineers actually know when Florida legally reserves for the environment water resources made available by the restoration project?"
- "How will the Federal resource agencies be consulted to ensure that our combined financial investments are yielding ecological restoration?"
- "How will affected parties be involved in making adaptive management decisions?"

In almost every case, the real answer to these and similar questions should be, "By picking up the phone." How do partners in business make decisions? By talking to each other.

Our goal is to ensure that this type of collaboration takes place. But we must me mindful of two things:

First, regulations are not written for the usual scenario where everyone agrees. They are written for those exceptions where there is a difference of opinion. The corollary to this, of course, is the thorny problem of the future is the one we cannot anticipate today and for which there will be no rules in place.

Second, today's efforts to integrate the laws, policies and institutional cultures of several different State and Federal agencies should not distract us from our shared goal. Never before have so many diverse interests been so committed to a common environmental goal.

Congress deserves high marks on this score. The Water Resource Development Act of 2000 clearly lays out the expectation that agencies must collaborate in decisionmaking. It also wisely vests ultimate responsibility, and accountability, with a single agent for each of the partners: the United States and the State of Florida.

We all recognize, from relevant and recent experience, that to do otherwise puts restoration at risk.

The procedural regulations developed by the U.S. Army Corps of Engineers create workable rules for how our partnership will make decisions. WRDA clearly did not anticipate some of the additional steps the Corps included in the rule. For example, requiring the concurrence of two different Federal agencies on six different guidance memoranda, and memorializing a predominant role for the Federal resource agencies over other interests in the RECOVER program. Yet, we can support the rule as proposed.

However, we urge that the Corps make no additional changes that would move the procedural regulations further away from the requirements of the carefully balanced and well-considered WRDA 2000 statute.

Regarding the historic act signed by President Clinton, some who cheered the event are now exhibiting signs of buyer's remorse. Rather than look forward, they look backward. In retrospect, they would like to "tweak" the law, or adopt rules to advance ideas that failed to make it into statute. To do so risks unraveling the coalition of diverse interests that made the Comprehensive Everglades Restoration Plan possible.

It is important to remember that the old zero-sum game view of the world with winners and losers does not apply here. This restoration plan is different. It is holistic. It provides water first for nature and then for people, and it does so without artificially subsidizing water supplies. It is, perhaps, the world's best example of sustainable development.

Consider the fact that the plan one would choose for restoring the Everglades would be basically the same as the plan one would choose for ensuring a long-term sustainable water supply—and vice versa. In other words, there will be plenty of water for both wildlife and people. The very same water that rehydrates the Everglades also replenishes the wellfields. To ensure that outcome, the plan is built on an enforceable legal foundation.

Here is another way to think about it: While only half of the original Everglades ecosystem remains the amount of rain that falls on South Florida has not changed. Pushing 100 percent of the water into 50 percent of the area would permanently drown the Everglades.

The restoration plan recognizes this. As water that is currently flushed out to sea via canals is recaptured, it will be reserved to ensure the right quantity, timing and distribution is achieved for the ecosystem. Forcing all of the water into the Everglades would be too much of a good thing.

Finally, suggestions that this plan subsidizes water supply and prompts growth are wrong at several levels.

First, the Federal Government was a full partner a generation ago in draining the Everglades. The Federal Government must now be a full partner in fixing the damage. This is hardly a subsidy.

Second, Florida has made the unprecedented commitment to fund half the project. Through smart money management and without raising taxes, Florida has a proven funding plan that allows growth to pay for environmental restoration, not the other way around.

Third, the restoration plan simply captures water now artificially lost to the sea and puts it back into the Everglades' watery landscape. The plan does not subsidize the infrastructure costs necessary to provide water supply service. Those costs will, appropriately, be borne by the water consumer.

The Comprehensive Everglades Restoration Plan passed out of this committee will be a defining legacy of our generation. We recognize that. And as your full and equal partner, please understand Florida's commitment to ensuring that it remains comprehensive, and that it remains about restoration. That is our common goal.

RESPONSES OF DAVID B. STRUHS TO ADDITIONAL QUESTION FROM SENATOR GRAHAM

Question 1. Can you describe what will happen to the Everglades if no action is taken on the CERP?

Response. If we do not move forward, the evaluation tools used in the Restudy indicate that virtually every part of the natural system will decline and be further imperiled by the year 2050. Without Plan implementation, there will be widespread water shortages throughout the entire South Florida region causing negative effects on the natural system and the economy of Florida and the Nation.

Question 2. What actions does Congress need to take in the near and distant future to move the CERP forward?

Response. We are hopeful that Congress will fund the Aquifer Storage and Recovery pilot projects and authorize the Indian River Lagoon, Water Preserve Areas and Southern Golden Gate Estates project components. Additionally, we need the provision language that will allow section 902 inflation calculations to be applied to the Critical Projects authorized in 1996 and the programmatic authority granted in WRDA 2000. We are also hopeful that Congress will fully fund the Corps budget for CERP implementation.

Question 3. Can you describe the State's financial commitment to Everglades restoration since WRDA 2000?

Response. Since the passage of WRDA 2000, the State of Florida has appropriated $300 million dollars for Everglades Restoration. This is in addition to the over $181 million from ad valorem taxes that the South Florida Water Management District has dedicated to the effort.

The District estimates it will spend approximately $320.4 million on CERP in FY03. Of this amount, $245.5 million is projected to be used to acquire lands needed to implement CERP.

This year, Governor Bush signed legislation that provides for the bonding of up to $100 million per year for the next 10 years to ensure a dedicated source of funds for CERP implementation. The bonds are secured with documentary stamp revenues. In addition to this $100 million, the Florida Forever program contributes $25 million and the SFWMD provides $75 million from ad valorem tax revenues for a total of $200 million per year.

Question 4. How much money has been spent on land acquisition? How much of the CERP's total land requirement has already been purchased?

Response. As of August, 23, 2002, $612,057,880 has been spent on land acquisition; 183,676 acres (which is 46 percent of the total needed) have been purchased.

Question 5. Does the CERP provide water supply benefits under the guise of environmental restoration?

Response. No. The water needed for restoration of the natural system will be reserved first. The President/Governor agreement provides legally binding assurance that the water made available by each project will not be permitted for consumptive use or otherwise made unavailable by the State until such time as sufficient reservations of water for the restoration of the natural system are made.

Because the Comprehensive Everglades Restoration Plan is very effective in capturing a significant amount of the excess water that is currently lost to tide, there will be virtually no competition between the natural system and urban and agricultural water needs. In other words, there will be plenty of water for both wildlife and people. The very same water that rehydrates the Everglades also replenishes the wellfields. To ensure that outcome, the plan is built on an enforceable legal foundation.

Question 6. Can you describe the State water reservation process?

Response. Pursuant to the law that governs water reservations, Section 373.223(4), Florida Statutes, reservations are adopted by rule to set aside water for the protection of fish and wildlife or public health and safety, such as restoration of the Everglades. Water reserved for these purposes cannot be allocated to consumptive uses of water, such as public water supplies or agricultural uses. Chapter 120 of the Florida Statutes, the Florida Administrative Procedures Act, requires rules to be adopted in accordance with a procedure allowing ample opportunity for input from affected persons and policymakers. Public rule development workshops and South Florida Water Management District (SFWMD) governing board rule hearings are a substantial part of this open public process in State rulemaking. Legal rights to challenge a proposed reservation are also provided under State law.

The SFWMD will adopt a water reservation rule, or rule amendment, for each CERP project prior to the entry of a Project Cooperation Agreement, in accordance with the identification of water to be made available for the natural system in the Project Implementation Reports.

Question 7. I am concerned about the process that will be used to modify a reservation once it is part of a congressional authorization. Can you describe the circumstances under which a modification could be required?

Response. Pursuant to Section 373.223(4), Florida Statutes, reservations are subject to periodic review and amendment based on changed conditions. In the context

of CERP implementation, reservations are projected to be modified based on changing operations and implementation of new projects (including CERP projects) that effect the water available for the natural system within the Central and Southern Florida Project. It is envisioned that the water made available by each CERP project will be identified on a system-wide basis, consistent with the effect of hydropattern improvement in the Everglades. Therefore, as each project is designed, it will consider the previous projects in place and the water that they provided to the environment. Previous system-wide reservations will then be increased (modified) based on the additional environmental water provided by the latest project design.

Guidance and recommendations for amendments to water reservations, will also be provided to the State from the CERP process, through subsequent project implementation reports and through the monitoring and testing of project operations. The need for modification to reservations based on these recommendations and changing conditions will be considered and made, if necessary, by the governing board of the South Florida Water Management District in accordance with the State reservations laws and administrative procedures that govern rulemaking.

Question 8. Have you had ample opportunity to communicate with the Corps on your views regarding programmatic regulations, project execution, and other CERP issues?

Response. Yes. We continue to work very closely with the Corps in all aspects of CERP implementation.

Question 9. Do you believe that the draft programmatic regulations give priority to Everglades restoration—in other words, does the proposal reflect the law's requirement that the overarching purpose of CERP is the restoration of the ecosystem?

Response. Yes. The programmatic regulations are part of a comprehensive set of assurance that work together to make certain the overarching purpose of CERP (to restore, preserve and protect the South Florida Ecosystem while providing for other water-related needs of the region, including water supply and flood protection) is achieved.

This set of assurances includes: the President/Governor Agreement; the requirement of Project Implementation Reports to identify the water needs of the natural system; the requirement of the State to reserve the water identified for the natural system in the PIR; the requirement for the reservation to be in place before the Corps can enter into a Project Cooperation Agreement; the requirement that the operating manual be consistent with the water identified in the Project Implementation Report for the natural system; the savings clause in WRDA 2000 for water supply for Everglades National Park and water supply for fish and wildlife; and the programmatic regulations. All of these assurances complement each other and work toward making sure the restoration effort is successful.

The State of Florida never contemplated that the programmatic regulations would be the only tool in the toolbox that provided assurances that the natural system restoration would be achieved. Rather, the programmatic regulations are viewed as a key component that creates workable rules for how the Federal and State partnership will make decisions.

Question 10. Do you give other water related needs such as development and agriculture equal priority with water needed to restore the natural system?

Response. It is important to remember that the old zero-sum game view of the world with winners and losers does not apply here. This restoration plan is different. It is holistic. It provides water first for nature and then for people, and, as noted above, there will be plenty of water for both.

Question 11. According to the Administration's Climate Action Report 2002,". . . the natural ecosystems of the Arctic, Great Lakes, Great Basin, and Southeast, and the prairie potholes of the Great Plains appear highly vulnerable to the projected changes in climate." In addition, that report says due to a projected rate of sea level rise from 4–35 inches over the next century, with mid-range values more likely, estuaries, wetlands and shorelines along the Atlantic and Gulf coasts are especially vulnerable. What consideration has been given in the development of the long-term plan for restoration of the Everglades to the effects of global warming and sea-level rise?

Response. The Everglades restoration plan focuses appropriately on restoring the quality, quantity, timing and distribution of water in the ecosystem. It does not have structural improvements designed specifically to combat sea level rise. There are features in the existing Central & Southern Florida Project as well as operational changes proposed in CERP that will be beneficial in arresting salt water intrusion that would result from sea level rise.

If sea level continues to rise over the next century, portions of the southern end of the ecosystem, will likely be submerged. However, it may not be as dramatic as

one might expect because the reintroduction of sheet flow across the southern end of the ecosystem as a result of implementing CERP may help offset some of the saltwater encroachment. Also, the mangrove islands of Florida Bay and the Ten Thousand Islands have demonstrated a capacity for depositing sufficient organic material to rise in elevation at a rate commensurate with sea level rise.

RESPONSES OF DAVID STRUHS TO ADDITIONAL QUESTIONS FROM SENATOR INHOFE

Question 1. Could Everglades restoration be accomplished with any of the flood protection alternatives for the 8.5 SMA?

Response. Everglades restoration would be accomplished in varying degrees under any of the flood mitigation alternatives for the 8.5 SMA. All of the project alternatives examined in the General Reevaluation Report and Final Supplemental Environmental Impact Statement (GRR/SEIS) dated July 2000 met the mandatory project requirement of mitigating the flooding impacts from increased flows due to implementation of the Modified Water Deliveries project. Alternative 6D demonstrated better environmental performance than other alternatives in this regard with the exception of a complete buyout of the 8.5 SMA. The Assistant Secretary of the Army determined that Alternative 6D provides a significant increase in environmental benefits over the 1992 plan (Final Record of Decision, December 2000). The 1992 plan performed poorly when compared to Alternative 6D and resulted in a decrease in wetland function. Alternative 6D resulted in an increase in over 1300 acres of wetlands, due in large part to the minimization of drawdown effects within Everglades National Park and preservation of wetlands in the western portions of the 8.5 SMA while providing improved flood mitigation (GRR/SEIS, July 2000).

Question 2. What Modified Waters components can go forward without completion of the construction of flood protection for the 8.5 SMA?

Response. To clarify, the Modified Water Deliveries project (MWD) does not require flood protection for the 8.5 Square Mile Area (SMA). Congress required the project to include flood mitigation to offset any increase in the frequency of flooding that may result from implementation of the project. Therefore, the answer to the question is that certain project components that do not affect water levels in the 8.5 SMA, such as the S–356 structure, can and are going forward. Other MWD project components such as the S–355 structures and the raising of Tiger Tail Camp have been completed. Until congressional intent is clarified, all efforts on the Modified Water Deliveries to Everglades National Park project that have a hydrologic effect on the 8.5 SMA have been suspended.

Question 3. Why are the other components dependent upon completion of the 8.5 SMA project?

Response. The remaining components of the Modified Water Deliveries project enable additional flows into North East Shark River Slough (NESRS). Additional flows into NESRS will elevate surface and groundwater levels in the 8.5 SMA making the area more susceptible to flooding. Before projects that increase flows into NESRS go forward, land acquisition must be completed in the Everglades Expansion Area and flood mitigation must be provided to the 8.5 SMA.

Question 4. Is there any other way in which Everglades restoration is meaningfully dependent on completion of flood protection for the 8.5 SMA?

Response. Yes. WRDA 2000 requires completion of Modified Water Deliveries (MWD) before appropriations to construct certain CERP components. MWD requires completion of flood mitigation for the 8.5 SMA. Planning for CERP components also requires certainty about which flood mitigation plan will be in place.

Question 5. What is the timeline for completion of these components?

Response. Until congressional intent is clarified the timeline is uncertain.

Question 6. What was the original timeline for completion of MWD?

Response. The 1992 General Design Memorandum projected a completion date of June 1997.

Question 7. What alternatives for the 8.5 SMA would meet this timeline?

Response. None.

Question 8. Rank the alternatives in the July 2000 Final Supplement to the Final EIS on the 8.5 SMA ("FEIS") for constructing flood protection for the 8.5 SMA project in terms of time for completion?

Response. There is insufficient information to rank the alternatives relative to time for completion. The Final Supplement to the Final Environmental Impact Statement (EIS) contains no conclusions or recommendations as to the performance of the alternatives, or to the preference of one over any of the others. The EIS used seven objectives for measuring the performance of each alternative in meeting the goals of the project. These objectives are listed below:

1. Evaluate effects on hydropatterns in NESRS.
2. Evaluate impacts to the landowners and residents of the 8.5 SMA resulting from implementation of MWD.
3. Analyze cost effectiveness.
4. Analyze effects to ecological functions.
5. Evaluate effects on conditions favorable to Federal and State listed endangered species survival.
6. Measure the compatibility with CERP and C–111 projects without adversely impacting the current level of flood protection east of L–31N.
7. Analyze impacts and costs associated with time delays in implementation of alternatives.

Performance measures were developed for each objective including the objective analyzing impacts and costs associated with time delays. These measures were used to evaluate the ability of each alternative to meet the objectives but the evaluation was not intended to rank the order of effectiveness.

Question 9. How much acquisition of land is still required to implement each of the alternatives?

Response. For the plan formulation or comparison of alternatives, the following acreage was included in the cost estimate for each alternative: (Reference GRR/SEIS 2000, Appendix C.)

Alternative 1—663 ac
Alternative 2—663 ac
Alternative 3—5825 ac
Alternative 4—6413 ac
Alternative 5—6413 ac
Alternative 6B—4346 ac
Alternative 6C—1743 ac
Alternative 6D—2881 ac
Alternative 7—5839 ac
Alternative 8—5803 ac
Alternative 9—663 ac

Question 10. Explain the reasons for differences in time of completion.

Response. Each alternative faces obstacles for timely implementation. There are varying engineering demands, land acquisition needs, and construction timelines associated with each alternative.

Question 11. How many residences, including those that are owner-occupied and those that are occupied by someone other than the owner, would the Corps have to acquire to implement Alternative 6D?

Response. Seventy-seven residential parcels would be purchased under Alternative 6D; 53 are owner occupied and 24 are tenant occupied. Of these, we estimate only 10 residences will have to be acquired by eminent domain. Some parcels have combinations of owners, tenants and businesses resulting in multiple relocations. Total number of relocations including owners, tenants and businesses is estimated to be 96.

Question 12. Explain in detail why Alternative 6D relating to the 8.5 SMA project is called the "Buffer Plan" in environmental documents?

Response. The levee in the 1992 General Design Memorandum plan has been relocated eastward to higher ground elevations. This elevation represents the most definable break between short hydroperiod wetlands and traditional upland areas. This relocation creates a buffer between the short hydroperiod wetlands and the residents that would remain in the 8.5 SMA.

Question 13. Explain what a "buffer" has to do with modifying water deliveries into Everglades National Park?

Response. The buffer lessens the frequency of flooding of the residents remaining in the 8.5 SMA and it decreases the effects of the seepage canal on restoration of natural water levels in the Everglades National Park (ENP) by moving the canal further to the east.

Question 14. If Congress does not enact legislation to authorize Alternative 6D, or otherwise direct the Corps' resolution of that issue, what courses of action can and will the Corps take to complete Modified Waters?

Response. We respectfully defer to the U.S. Army Corps of Engineers to respond to this question.

Question 15. If Congress does not enact legislation to authorize Alternative 6D or otherwise direct the Corps resolution of that issue, what course of action can or will the Corps take to construct flood protection for the 8.5 SMA?

Response. We respectfully defer to the U.S. Army Corps of Engineers to respond to this question.

Question 16. Of the alternatives considered in the FEIS, what is the Corps second choice after alternative 6D?

Response. A second alternative was not chosen.

Question 17. What is the Corps' third choice?

Response. A third alternative was not chosen.

Question 18. Does the FEIS state that each alternative, including Alternatives 1 and 2b, meets the ecological goals of the Modified Waters project?

Response. All of the alternatives meet the stated project requirements. However, Alternative 6D performed better than other alternatives in this regard with the exception of a complete buyout of the 8.5 SMA.

The stated project requirements are that the alternative: (1) does not negatively impact higher stages in Everglades National Park as specified in the Modified Water Deliveries (MWD) project; (2) mitigate for increased stages within the 8.5 SMA resulting from implementation of the MWD project; (3) develop a solution that can be permitted by regulatory interests under current and reasonably foreseeable regulations; (4) ensure no significant impact to existing habitat of endangered or threatened species; and (5) maintain current levels of flood protection for agricultural areas east of the L31N canal.

Question 19. Is it accurate to say that Alternative 6D will cost about $58,000,000 more than Alternatives 1 or 2b?

Response. Yes. Alternative 6D will cost more than either Alternatives 1 or 2B. Alternative 1 costs approximately $57 million less than Alternative 6D. Alternative 2B costs approximately $54 million less than Alternative 6D. (Reference GRR/SEIS 2000, Table ES 1, total initial project costs.)

Question 20. Why should the Federal Government force families to leave their homes and have the taxpayers pay for an incomplete flood protection alternative that costs $58 million more than a plan that provides full flood protection, meets the ecological goals of Modified Waters and forces no one from their homes?

Response. The only full flood protection plan is to remove all residents through Alternative 5, which is a total buyout of the 8.5 SMA. Both Alternatives 1 and 2B, as well as Alternative 6D, will result in periodic flooding. However, Alternative 6D performs better than both Alternatives 1 and 2B in restoring hydroperiod in northeast Shark River Slough and increasing overall wetland acreage in the region.

Question 21. If it is not accurate to say that Alternative 6D will cost $58 million more than Alternatives 1 and 2b, why is that so?

Response. Please refer to the answer to question number 19.

Question 22. What are the cost estimates of these alternatives?

Response. The cost estimates are as follows:

Alternative 1—$31 million
Alternative 2B—$34 million
Alternative 6D—$88 million

Question 23. If you estimate the cost of Alternative 6D—which requires substantial property acquisition—is similar to or greater than the costs of the other alternatives—which do not—explain why and provide a detailed explanation of the basis for your costs estimates.

Response. The basis for each alternative's costs estimates included comparable operation & maintenance and replacement costs, real estate costs, and capital costs using standard U.S. Army Corps of Engineers procedures. (Reference GRR/SEIS 2000, Table ES–1, total initial project costs and real estate costs of all the alternatives.)

Question 24. What has the Department of Interior ("DOI") told the Corps about whether DOI will release funds for the project if the Corps pursues Alternative 1 or 2b?

Response. On December 24, 1998, Richard Ring, then Superintendent of the Everglades National Park wrote: "I cannot recommend that the Department of the Interior furnish the funding for the current mitigation component (the 1992 plan for the 8.5 Square Mile Area) of the Modified Water Deliveries Project". In addition, we have a letter of intent dated June 30, 2000 from the U.S. Department of Interior (USDOI) which states that "Alternative 6D provides significant environmental benefits beyond what is contained in the present design for the 8.5 SMA as reflected in Alternative 1." Also, in a letter dated October 9, 2001, USDOI stated "the Army Corps may proceed to initiate real estate acquisition activities in the 8.5 SMA, including the filing of condemnation actions if necessary."

Question 25. What has the DOI told the Corps about whether DOI will release funds for any alternative other than Alternative 6D?

Response. Please refer to the answer to question 24.

Question 26. Is one of the reasons that the Corps selected Alternative 6d that the Department of the Interior resisted funding Alternative 1?

Response. The fact that the U.S. Department of Interior resisted funding Alternative 1 was just one of the reasons that the U.S. Army Corps of Engineers prepared a General Reevaluation Report and Final Supplemental Environmental Impact Statement (GRR/SEIS) which led to the selection of Alternative 6D. Among other reasons, the South Florida Water Management District also withdrew support from Alternative 1 and requested that the Corps evaluate a full array of alternatives. After the full array of alternatives were evaluated, the Assistant Secretary of the Army determined that Alternative 6D provides a significant increase in environmental benefits over the 1992 plan (Final Record of Decision, December 2000). The 1992 plan performed poorly when compared to Alternative 6D and resulted in a decrease in wetland function. Alternative 6D resulted in an increase in over 1300 acres of wetlands, due in large part to the minimization of drawdown effects within Everglades National Park and preservation of wetlands in the western portions of the 8.5 SMA while providing improved flood mitigation (GRR/SEIS, July 2000).

Question 27. What, if any, other obstacles exist to implementation of Alternatives 1 or 2b?

Response. To our knowledge, there are no funds appropriated to implement Alternatives 1 or 2B without express congressional intent given to the Secretary of the Interior. We respectful defer to the U.S. Army Corps of Engineers and the U.S. Department of Interior to respond to this question.

Question 28. What are the hydrological differences between taking no action (no modified water deliveries) on the one hand, and adopting Alternative 1, Alternative 2b, or Alternative 6D on the other hand. Specifically address for each alternative:

a. How much more water will there be and where will that water be?

b. How much of the additional water will be in the Park and how much will be outside of the Park?

c. What measurable difference will that extra water make for plants, wildlife, and other environmental indicators?

d. Where exactly will those measurable differences occur?

e. What is the measurable ecological significance of those differences?

Response. See attached Table ES–1 from the General Reevaluation Report and Final Supplemental Environmental Impact Statement (2000).

Question 29. Would building the levee and seepage canal another mile to the east in 8.5 SMA change the hydrological results?

Response. This is unknown. A levee and seepage canal another mile to the east was not one of the alternatives evaluated. We have no modeling results on this alternative, thus any answer would be speculative.

Question 30. Would acquiring the entire 8.5 SMA and constructing no flood protection change the hydrological results?

Response. Yes. Acquiring the entire 8.5 SMA produced better wetland and hydroperiod restoration than all other alternatives. However, Alternative 6D provides almost the same environmental benefits while still providing flood mitigation for 83 percent of the residences.

Question 31. When the Corps measures the costs and benefits of this project, how does it value hydrological benefits?

Response. Please refer to the answer to question number 28.

Question 32. How does it measure the costs of removing a person or family from their home?

Response. These costs are included in the attached table (Table ES–1, GRR/SEIS 2000) which quantifies flood mitigation damages, flood protection damages, impacts to business, impacts to residences, impacts to agricultural lands and unwilling sellers.

Table ES-1
Results of Alternatives Analysis

This table presents the absolute values for each performance measure.

1. Evaluate Effects on Hydropatterns in NESRS.

Measure	Units	Base 95	Alt 1	Alt 2B	Alt 3	Alt 4	Alt 5	Alt 6B	Alt 6C	Alt 6D	Alt 7	Alt 8A	Alt 9
a. Hydroperiod Impacts[1]	Increased Hydroperiod (ac)	N/A	25,156	24,842	26,271	26,271	26,271	26,271	25,799	26,271	26,271	26,271	24,999
	Decreased Hydroperiod (ac)	N/A	1,114	1,428	0	0	0	0	471	0	0	0	1,271
b. Water depths[1]	Increased depth (ac)	N/A	59,380	59,578	62,396	62,125	62,125	62,068	60,643	62,068	62,125	62,029	59,469
	Decreased depth (ac)	N/A	2,707	2,489	0	0	0	0	1,425	0	0	95	2,593
c. Effects on Seasonal variability	Minimum stage, (ft)	5.59	6.61	6.69	6.95	6.83	6.83	6.86	6.97	6.84	6.83	6.91	6.85
	Maximum stage, (ft)	7.89	8.05	8.07	8.34	8.25	8.25	8.29	8.17	8.25	8.25	8.31	8.06
	Range of stage, (ft)	2.54	2.02	1.95	1.96	1.95	1.95	1.97	1.97	1.96	1.95	1.94	1.96
d. Duration of continuous flooding	Consecutive weeks of inundation	39	39	42	42	42	42	45	43	45	42	45	41

[1] Value represents the comparison of each alternative versus the Base 95 Condition

2. Evaluate Impacts to the Landowners and Residents of the 8.5 SMA Resulting From Implementation of the Modified Water Deliveries Project.

Measure	Units	Base 95	Alt 1	Alt 2B	Alt 3	Alt 4	Alt 5	Alt 6B	Alt 6C	Alt 6D	Alt 7	Alt 8A	Alt 9
a. Flood mitigation damages	Area of damages, (ac, %)	0	0	0	4693 73%	N/A	N/A	150 2%	0	546 9%	4404 69%	2013 31%	0
b. Flood protection damages	Area of damages, (ac, %)	0	N/A	N/A	5825 91%	N/A	N/A	150 2%	N/A	N/A	N/A	N/A	N/A
c. Impacts to business	No. of businesses impacted	0	0 0%	0 0%	0 0%	4 100%	4 100%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%
d. Impacts to Residences	No. of residences impacted	0	1 0.5%	1 0.5%	1 0.5%	20 9%	208 100%	144 68%	17 8%	35 17%	1 0.5%	129 62%	1 0.5%
	Total no. of structures impacted	0	1 0.2%	1 0.2%	1 0.2%	44 9%	514 100%	354 68%	41 8%	87 17%	1 0.2%	319 62%	1 0.2%
e. Impacts to agricultural lands	Lost area (ac)	0	0 0%	0 0%	0 0%	0 0%	2,642 100%	1,175 44%	51 2%	215 8%	0 0%	900 34%	0 0%
	Lost annual income ($M/yr)	0	0	0	0	0	6.46	2.78	0.125	0.53	0	2.20	0
f. Unwilling sellers	No. of property owners	Time constraints associated with the conduct of this study prevented the development of a statistically reliable survey instrument and sample survey. As a result, a specific estimate of the numbers of unwilling sellers has not been developed.											

3. Analyze Cost Effectiveness

Measure	Units	Base 95	Alt 1	Alt 2B	Alt 3	Alt 4	Alt 5	Alt 6B	Alt 6C	Alt 6D	Alt 7	Alt 8A	Alt 9
a. Project costs	O&M and Replacement Costs ($M/yr)	0	.27	.33	0	0	0	.33	.33	.40	.43	.35	.37
	Real Estate Costs ($M)	0	4.1	4.1	110.2	122.8	164.8	115.0	30.7	55.7	110.5	127.0	4.1
	Capital Costs ($M)	0	26.5	29.6	125.6	9.2	14.2	32.7	32.1	32.4	24.1	26.8	35.8
	Total Initial Project Costs ($M)	0	30.6	33.9	235.8	132.0	179.0	147.7	62.8	88.1	134.6	153.7	39.9
b. Local Costs	Capital Cost ($M)	0	0	0	0	0	0	36	0	0	0	0	0
	Annual O&M Costs ($M/yr)	0	0	0	0	0	0	0.90	0	0	0	0	0

1) Capital cost includes all design and construction management costs and contingency, it does not include real estate costs.
2) O & M and Replacement costs are presented as annual costs.
3) O & M costs do not include ecological O & M or water quality monitoring.
4) Real estate costs include all fee simple acquisition and flowage easements.

Table ES-1 (Continued)
Results of Alternatives Analysis

This table presents the absolute values for each performance measure.

4. Analyze Effects to Ecological Functions													
Measure	Units	Base 95	Alt 1	Alt 2B	Alt 3	Alt 4	Alt 5	Alt 6B	Alt 6C	Alt 6D	Alt 7	Alt 8A	Alt 9
a. Wetlands west of L-31N	Area (ac)	64,429	61,625	62,012	59,986	62,372	62,372	61,643	61,117	61,893	62,372	60,902	61,820
b. Short-Hydroperiod Marl Forming Wetlands	Area (ac)	6,353	1,690	1,249	1,070	2,399	2,399	2,074	1,290	2,055	2,399	1,908	1,470
c. Long-Hydroperiod Peat Forming wetlands	Area (ac)	48,076	59,935	60,763	58,916	59,973	59,973	59,469	59,827	59,838	59,973	58,994	60,350
d. WRAP Score	Functional Units	13,405	10,640	10,640	11,630	15,853	15,853	15,011	11,600	14,727	14,696	15,645	10,640
5. Evaluate Effects on Conditions Favorable to Federal and State Listed Endangered Species Survival													
Measure	Units	Base 95	Alt 1	Alt 2B	Alt 3	Alt 4	Alt 5	Alt 6B	Alt 6C	Alt 6D	Alt 7	Alt 8A	Alt 9
a. Cape Sable Seaside Sparrow		A Biological Assessment (BA) under the provisions of Section 7 of the Endangered Species Act (50 CFR 402), prepared by the USACE, has concluded that the project would not be likely to adversely affect any listed species. Coordination with the USFWS has been initiated and concurrence with this determination requested.											
6. Measure compatibility with CERP and C-111 projects without adversely impacting the current level of flood protection east of L-31N													
Measure	Units	Base 95	Alt 1	Alt 2B	Alt 3	Alt 4	Alt 5	Alt 6B	Alt 6C	Alt 6D	Alt 7	Alt 8A	Alt 9
a. Compatibility with CERP	Qualitative (R/Y/G)	N/A	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green
b. Compatibility with C-111	Qualitative (R/Y/G)	N/A	Red	Green	Yellow	Yellow	Yellow	Green	Green	Green	Yellow	Green	Green
c. Agricultural lands east of L-31N	Stage (ft)	6.32	6.72	6.57	6.67	6.69	6.69	6.58	6.52	6.62	6.69	6.67	6.66
7. Analyze Impacts and Costs Associated With Time Delays in Implementation of Alternatives													
Measure	Units	Base 95	Alt 1	Alt 2B	Alt 3	Alt 4	Alt 5	Alt 6B	Alt 6C	Alt 6D	Alt 7	Alt 8A	Alt 9
a. Environmental and cultural resources		See Section 6.2.7 in GRR for discussion of this measure											
b. Ability to meet implementation schedule	Qualitative (R/Y/G)	N/A	Green	Green	Yellow	Red	Red	Red	Red	Red	Red	Red	Green
c. Construction delays	Qualitative (R/Y/G)	N/A	Green	Green	Red	N/A	N/A	Green	Green	Green	Green	Yellow	Green
d. Administrative requirements of alternatives	Qualitative (R/Y/G)	N/A	Green	Green	Yellow	Red	Red	Red	Red	Red	Red	Red	Green

Question 33. What value does it place on allowing a family to remain in their home protected from flooding?

Response. The analysis in the GRR/SEIS 2000 optimized environmental benefits while minimizing social impacts. Alternative 6D produces the greatest environmental benefits per dollar of investment. It also impacts less than 13 percent of the households and preserves 92 percent of agricultural productivity.

Question 34. Did Madeline Fortin check with the Corps before she bought her home in September 1994?

Response. We respectfully defer to the U.S. Army Corps of Engineers to respond to this question.

Question 35. What was she told?

Response. We respectfully defer to the U.S. Army Corps of Engineers to respond to this question.

Question 36. Was the Mod Waters project to start in 1992 with completion no later than 1997?

Response. The 1992 General Design Memorandum projected a completion date of June 1997.

Question 37. Have many of the families in the 8.5 SMA been flooded in feet of water for months at a time almost every year since 1994?

Response. There have been reports of flooded homes in the area, however, the depth and duration are not well documented.

Question 38. Was the original congressional approve plan to cost $39 million?

Response. In the 1992 General Design Memorandum, the project cost estimate was $85.6 million.

Question 39. Would the original congressionally approved plan have avoided removing families from their homes when families want to stay in their homes?

Response. Alternative 1 required the acquisition of property and included 1 residential tract. Alternative 6D requires acquisition of additional property and 77 residential tracts.

Question 40. Did the South Florida Water Management District at one time try to get the county to cutoff all electricity to the community?

Response. The South Florida Water Management District has at no time requested that electrical services to any community be turned off. Electrical utility issues are not within the responsibilities of the water management district as defined under State law.

Question 41. Were Metro Dade zoning regulations changed in the 1980's to prohibit new construction on parcels smaller than forty acres?

Response. We respectfully defer to Metro Dade to respond to this question.

Question 42. Are many holdings in the 8.5 SMA less than 5 acres?

Response. The majority of tracts in the 8.5 SMA are less than 5 acres. The following is an estimated breakdown of tract acreage being acquired for Alternative 6D:

- No. of Tracts with <5.0 acres of land = 570
- No. of Tracts with 5.0 acres of land = 151
- No. of Tracts with >5.0 acres of land = 49

Question 43. Does the county deny responsibility for the roads in the 8.5 SMA, calling them private roads?

Response. We respectfully defer to Miami-Dade County to respond to this question.

Question 44. Does Metro Dade collect property taxes from the 8.5 SMA residents?

Response. We respectfully defer to Metro Dade to respond to this question.

Question 45. What services does Metro Dade provide?

Response. We respectfully defer to Metro Dade to respond to this question.

Question 46. Has Metro Dade blocked attempts by unincorporated areas to incorporate?

Response. We respectfully defer to Metro Dade to respond to this question.

Question 47. Have fire trucks been impeded from saving burning home(s) by having to travel a very slow mile through 2 feet of water?

Response. We respectfully defer to Metro Dade to respond to this question. Please note, however, that the Everglades Protection and Expansion Act only authorizes mitigation of the additional water levels in the 8.5 SMA which will result from implementation of the Modified Water Deliveries (MWD) project. It does not authorize protection of property in the 8.5 SMA from the water levels which are generated by Central & Southern Florida projects in absence of the MWD modifications. The Everglades Protection and Expansion Act does not authorize protection of the 8.5 SMA from current "flooding" and it does not authorize expenditure of Federal funds to prevent standing water in the area.

Question 48. Have there been more than $1 billion in flood-related losses and 14 deaths from preventable flooding throughout the urban and agricultural areas of the county?

Response. We respectfully defer to Miami-Dade County to respond to this question.

Question 49. Has anyone from the in the Corps or the Water Management District been disciplined over the flooding?

Response. The South Florida Water Management District has not disciplined any of its employees over flooding issues. We respectfully defer to the U.S. Army Corps of Engineers to respond to the question as it relates to their employees.

Flooding is always a potential in South Florida. Our annual rainfall amounts often exceed 55 inches and nearly 75 percent of this rainfall occurs during the summer months. We have recorded rainfall amounts of more than 11 inches in a 24 hour period in Miami-Dade County. The Central and Southern Florida (C&SF) Flood Control System is the primary flood control system for South Florida and was designed by the US Corps of Engineers based on the technologies available in the 1960's and 1970's while taking into consideration the future projected population growth and land uses. The primary flood control system was not designed to protect against all potential flooding events but was designed to provide a level of protection from moderately strong storm events (frequently referred to as the design storm event). Unfortunately, urban and agricultural development has occurred at a higher density and rate than anticipated in some areas. Consequently, the drainage needs in some of these areas are not adequate based on current standards. The South Florida Water Management District (SFWMD) has recently implemented several enhancements by installing additional pump stations that are designed to respond to local flooding events. The U.S. Army Corps of Engineers is additionally initiating

several flood control studies to determine what, if any, additional drainage improvements can be implemented in geographic regions where drainage is below the current standards. The SFMWD and the Corps of Engineers have operated the C&SF project and has managed water in relation to the 8.5 SMA in accordance with all applicable laws and regulations.

Question 50. When approached to have the 8.5 SMA's secondary drainage canals to the main system, did a SFWMD official state "I will never give you a permit."

Response. Without further information, we are unable to verify the accuracy of this statement.

Question 51. Did SFWMD vote to try to acquire the entire community, though they did not have the power to condemn land?

Response. On December 8, 1998, the South Florida Water Management District (SFWMD) requested that the Army Corps of Engineers substitute full acquisition of the 8.5 SMA as the locally preferred alternative to the mitigation component of the Modified Water Deliveries project. In April 1999, the SFWMD Governing Board recommended that the Corps develop a full array of alternatives for providing mitigation without taking a position on a locally preferred option. The SFWMD later agreed with Alternative 6D as the federally recommended plan, but it did not request Alternative 6D as a locally preferred option. Naming Alternative 6D as a locally preferred option would have entailed local responsibility for any additional costs above the 1992 General Design Memorandum plan.

The SFWMD has condemnation authority for flood protection and water storage projects, but may be limited to voluntary acquisition for environmental restoration projects unless specific Legislative authority for condemnation for restoration projects has been granted. Since the South Florida Water Management District is not the agency responsible for land acquisition for MWD, a determination of whether the mitigation component for 8.5 SMA fall within Florida's statutory definition of "flood protection " or "environmental restoration" for purposes of the SFWMD's condemnation authority is inappropriate at this time.

Question 52. Was this effort later described as a "miscommunication"?

Response. No.

Question 53. Did one property owner write, "I like to inform you that we do like to sell our land that in accordance with the regulations has become good for nothing?"

Response. The State of Florida is unaware of any such letter. We respectful defer to the U.S. Army Corps of Engineers to respond to this question.

RESPONSES OF DAVID STRUHS TO ADDITIONAL QUESTIONS FROM SENATOR SMITH

Question 1. Do you support restoration as the overarching objective of the Plan?

Response. We are in full support of the overarching purposes of the plan as stated in WRDA 2000:

> "The overarching objective of the Plan is the restoration, preservation, and protection of the South Florida Ecosystem while providing for other water-related needs of the region, including water supply and flood protection."

Question 2. In your view, what is the greatest impediment to restoration at this point in the process?

Response. In order for restoration to be successful, the State of Florida must be recognized as a full and equal partner. There are ample assurances in place in the authorizing law to guarantee that water needed for restoration will be made available for the natural system. What appears to be lacking is a recognition that the State of Florida has the same restoration objectives.

Question 3. Where lies the greatest opportunity to ensure immediate results?

Response. The most immediate opportunities are moving forward with the initial ten authorized projects. Another tremendous opportunity for early success is Southern Golden Gate Estates. Fifty-five thousand acres of wetlands will be restored and sheetflow reintroduced across an 18 mile stretch of the Ten Thousand Islands and the western panhandle of Everglades National Park.

Question 4. How can Congress be of assistance in maximizing potential for success?

Response. We are hopeful that Congress will fund the Aquifer Storage and Recovery pilot projects and authorize the Indian River Lagoon, Water Preserve Areas and Southern Golden Gate Estates project components. Additionally, we need language that will allow the section 902 inflation calculations to be applied to the Critical Projects authorized in 1996 and the programmatic authority granted in WRDA 2000. We are also hopeful that Congress will fully fund the Corps budget for CERP implementation.

Question 5. Do you support an independent science panel that is free to review all aspects of the Plan that it deems important to providing independent review, or does the State believe that the panel should be guided by some government entity, like the Task Force?

Response. Yes. WRDA 2000 requires the Secretary, the Secretary of the Interior, and the Governor, in consultation with the South Florida Ecosystem Restoration Task Force, to establish an independent scientific review panel to review the Plan's progress toward achieving the natural system restoration goals of the Plan. The panel, according to Congress, should provide independent scientific review under the direction of the Secretary, the Secretary of the Interior, and the Governor, in consultation with the South Florida Ecosystem Restoration Task Force.

Question 6. What if there is a conflict between achieving CERP's restoration goals and its water supply targets? Should there be a priority to meet the restoration goals?

Response. The overarching object of the Plan is the restoration, preservation, and protection of the South Florida Ecosystem while providing for other water-related needs of the region, including water supply and flood protection. These needs are not competing. The Project Implementation Report process will identify water needed for the natural system. After the State of Florida has reserved the water needed for the natural system , the excess water will be available for consumptive use permitting.

There is ample water to restore the Everglades and meet the other water related needs of the region. While only half of the original Everglades ecosystem remains the amount of rain that falls on South Florida has not changed. The restoration plan recognizes this. As water that is currently flushed out to sea via canals is recaptured, it will be reserved to ensure the right quantity, timing and distribution is achieved for the ecosystem. Forcing all of the water into the Everglades would be too much of a good thing.

RESPONSES OF DAVID STRUHS TO ADDITIONAL QUESTIONS FROM SENATOR VOINOVICH

Question 1. While I am glad that the programmatic regulations deal with the use of water and how it will be used to restore the Everglades, I am concerned from a very provincial point of view that Federal funds may be used to take care of the water supply needs of a growing and expanding Florida. As I asked during the hearing, what laws are in place at the local, county and State level to encourage responsible land-use planning?

Response. In 1985, the State of Florida adopted Florida's Growth Management Act (the "Act") (Chapter 163, Part II, Florida Statutes, The Local Government Comprehensive Planning and Land Development Regulation Act) which requires all of Florida's 67 counties and 476 municipalities to adopt Local Government Comprehensive Plans that guide future growth and development. Comprehensive plans contain chapters or "elements" that address future land use, housing, transportation, infrastructure, coastal management, conservation, recreation and open space, intergovernmental coordination, and capital improvements. A key component of the Act is its concurrency provision that requires facilities and services to be available concurrent with the impacts of development.

In 2001, the State amended the Act to integrate land use and water supply planning. The amendment requires local governments to consider the applicable water management district's regional water supply plan in their potable water element and other elements of the local government comprehensive plan. Additionally, the amendment requires local governments to include in their potable water element a 10-year work plan for building water supply facilities that are considered necessary to serve existing and new development and for which the local government is responsible.

The Florida Department of Community Affairs (FDCA) reviews comprehensive plans and plan amendments for compliance with the Act. Other various State agencies including the Department of Environmental Protection and the water management districts also review comprehensive plans and amendments and may issue recommended objections to FDCA.

We respectfully defer to Miami-Dade County for a description of local and county regulations that encourage responsible land-use planning.

STATEMENT OF BILLY CYPRESS, CHAIRMAN, MICCOSUKEE TRIBE OF INDIANS OF FLORIDA

My name is Billy Cypress, Chairman of the Miccosukee Tribe of Indians of Florida. I've testified to this committee before and my written testimony contains a full description of the Miccosukee Tribe's place in the Everglades and its role in Everglades restoration, so I will not explain that now, except to point out that we are the only people to live in the Everglades, that much of the Everglades is tribal land, and that the Tribe has adopted EPA approved water quality standards for the Everglades under the Clean Water Act.

Thank you for the opportunity to testify on the status of Everglades restoration since the passage of the Water resources Development Act of 2000. WRDA 2000 was a positive step on which this committee spent much productive labor. But agency actions since its passage leave much to be desired—and in some cases the agencies are retrogressing, actually taking steps quite harmful to restoration.

THE IMPORTANCE OF RESTORATION AND FAILURES IN IMPLEMENTATION

Two points are important. First, that Everglades restoration, no matter what the status of its implementation, continues to be of great national importance and is well worth the effort. As I said to the Florida Legislature in 1994, the Everglades is the Mother of the Miccosukee Tribe, and she is dying. She is in the care of others, who do not seem to care.

Second, implementation of Everglades restoration is in serious trouble due to misplaced priorities, subordination of fundamental democratic values, Federal intransigence, and bureaucratic arrogance and incompetence. While we all have hope for the future, Everglades restoration is clouded at present by a past of discrimination and failure.

THE RECORD IN 2002

Consider, for example, that just this year Federal courts in South Florida have found government action relating to the Everglades to be in violation of Federal law four times in four different cases.

RESTORATION AND THE COURTS

(1) In February 2002, a Federal district trial court found that the Corps of Engineers had acted arbitrarily and capriciously in adopting an Interim Operating Plan for the Cape Sable Seaside Sparrow (the U.S. did not appeal).

(2) Just this month (September 2002), the Eleventh Circuit Court of Appeals found unanimously that the Federal Government had used improper procedures in developing restoration policy by establishing an advisory committee with the State of Florida without meeting public notice and meeting requirements of the Federal Advisory Committee Act (FACA). These cases were both brought by the Tribe.

(3) In July 2002, a Federal district court found that the Corps acted unlawfully in attempting to condemn homes in the long-delayed Modified Water Deliveries Project. This case was brought by the homeowners.

(4) In February 2002, the Eleventh Circuit Court of Appeals upheld a trial court finding that the State of Florida (Water Management District) was violating the Clean Water Act by discharging pollution into the Everglades in Broward County. This case was brought by the Tribe.

Each of the cases involved serious (not just technical) matters of Everglades policy and policymaking. But, it seems, that nothing bad ever happens to governments when they are found to be in violation of the law. They just go on like nothing happened. In fact, the senate just rewarded the unlawful behavior of the Corps in the Modified Water Deliveries Project by passing an amendment to the Interior Appropriations Bill which legitimizes its unlawful behavior. How can any citizen or Indian Tribe trust the law when agencies can ignore the law for years and then, when a court finds the action to be indeed unlawful, Congress just changes the law. The "rule of law" does not mean that you just change the law to fit whatever an agency does; it means that the agency conforms its behavior to the pre-existing law. So far, Everglades restoration is a case study of trashing the rule of law, legal promises made by Congress but broken at a whim, phony guarantees of protection to citizens and the Tribe which mean nothing when the time comes to rely on them.

WATER QUANTITY (HYDROPERIOD RESTORATION): MOVING FURTHER AWAY FROM NATURAL LEVELS AND REJECTION OF THE NATURAL SYSTEM MODEL

Several Federal agencies (Department of the Interior and the Corps) have decided that hydroperiod restoration is not the priority goal, notwithstanding the CERP pri-

ority on such restoration. The 1999 CERP Plan provided that "getting the water right" (hydroperiod and pollution; i.e., water quantity and quantity) was the means and goal of Everglades restoration. This is the Tribe's position. If we achieve water quantity and quality, other biological elements will follow. But the Federal agencies now object to this approach, because hydroperiod restoration will have a temporary negative impact on any non-natural conditions which some animals and plants (i.e., some species) like better than natural conditions. These agencies are not willing to restore the Everglades if the natural Everglades is not the best condition for their client species which like the non-natural Everglades better!

This is illustrated by the actions of the Corps and Fish and Wildlife Service in connection with the Cape Sable seaside Sparrow, which move further away from natural water levels in the western Everglades than even the C&SF project had caused. In the western Everglades (tribal areas), the C&SF project caused waters north of Tamiami Trail to be higher than natural; and C&SF caused waters south of the trail to be lower than natural. Believe it or not, actions being taken now are causing water north of the Trail to be even more unnatural, even higher than C&SF levels (which we are supposed to be fixing). Likewise, waters south of the Trail are being forced even more unnatural, lower even than C&SF levels.

This absurdity has resulted in Fish and Wildlife Service claims that we cannot rely on the Natural System Model (NSM), whenever FWS doesn't like the model. Even though the validity of NSM was central to the whole idea of CERP, FWS now picks and chooses when it will rely on NSM and when it just decides that NSM is no good—essentially, disregarding this scientific model whenever it doesn't produce the results FWS wants.

This is outrageous, just like Alice-in-Wonderland. And its destroying tribal lands north of the Trail. In March 2002, the Amended Biological Opinion finally acknowledged that 88,300 acres of Everglades north of the Trail (tribal lands) will be degraded by this action.

The Tribe's statement on this critical issue, with graphs proving the facts, is contained in a special section of the Report of the South Florida Ecosystem Task Force (and it is attached to my written testimony).

WATER QUALITY (POLLUTION ABATEMENT)

Most water quality improvements are considered to be pre-CERP under State programs. These State programs are behind schedule and no method of achieving final water quality standards by the 2006 deadline has been selected. The Federal district court overseeing the Federal consent decree on water quality has expressed interest in the apparent problems in this area and has scheduled an extensive hearing for next week.

A SUMMARY OF CRITICAL ASPECTS OF EVERGLADES RESTORATION

There are several critical aspects of Everglades restoration which are not well understood at the highest levels of Federal and State administration (due to inevitable time constraints and reliance on pre-existing bureaucracy) and which are exploited to achieve distortion by intermediate levels of bureaucracy (to achieve narrow agendas tied to client or constituent groups, such as environmental group ties within the National Park Service). These critical aspects include:

1. Destruction of Non-Federal Everglades (State and Tribal Everglades)

There is more freshwater Everglades to be saved outside of Everglades National Park and the Loxahatchee National Wildlife Refuge than within the Park and the Refuge, but Federal agencies discriminate against the State and tribal Everglades, sacrificing the largest part of the remaining freshwater Everglades in favor of the smaller Federal Everglades in the Park and the National Wildlife Refuge.

- The remaining "River of Grass" to the north of the Park and to the south of the Refuge (outside of Federal control), in the Florida Water Conservation Areas and Miccosukee Indian Country, is much larger than the Park and the Wildlife Refuge.
- Everglades National Park itself is less than half of the remaining freshwater Everglades.
- The Federal agencies (DOI, Park, etc) always seek their own aggrandizement at the expense of the rest of the Everglades
- The Department of the Interior seeks to sacrifice the larger Everglades in State and Tribal control to serve a sub-optimal, selfish goal of absolutely perfect treatment of their lands.

• The Federal Government always gives priority first-class status to Federal land, while giving equally important State, Tribal, or private lands only second-class status or no status at all.

RECOMMENDATIONS

(A) Direct that all of the remaining Everglades be treated equally (all Everglades within the official Everglades Protection Area), with no preference for Federal lands over State or Tribal lands (an "equal protection" concept).
(B) Review Department of Justice litigation positions to provide full protection and equal treatment of all remaining Everglades, including tribal Everglades.

2. Endangered Species Act Distortions

The Department of the Interior in the prior Administration used the ESA to try to wrest control of the entire "Central and South Florida Project for Flood Control and Other Purposes" from the Corps of Engineers, posing a serious threat to balanced restoration and to Tribal Everglades, as well as to policy control of the process.

• DOI has tried to gain control of all water delivery schedules throughout the South Florida region through the Endangered Species Act, both directly (through "Biological Opinions", etc) and indirectly (through illicit coordination with client environmental groups to induce agency-supported lawsuits).
• DOI control of the Project, which is a congressionally authorized Corps of Engineers project, would be a disaster for South Florida residents (reduced flood protection and water supply).
• DOI control of the Project also would be a disaster for the Administration, because DOI bureaucrats would constantly constrain the administration's options, "setting up" the Administration for criticism and hostile (agency-induced) litigation from client environmental groups.

RECOMMENDATIONS

(A) Review the use of the ESA in the Everglades at the DOI Secretary level, with input from outside the agency staff channels.
(B) Gain control of Department of Justice litigation strategies (which have been previously in the hands of attorneys tied politically to the prior Administration's views).

3. Diminished Flood Protection and Destruction of Tribal Lands and Private Property

Everglades restoration as implemented has resulted in tragic and unnecessary flooding of residential homes and destruction of private property.

• The Comprehensive Plan of the Corps of Engineers, as approved by Congress, demonstrates that Everglades restoration need not diminish flood protection and destroy tribal lands and other private property rights
• The Department of the Interior (especially National Park Service and Fish & Wildlife Service) have used restoration to deliberately establish park "buffer zones" (which Congress has refused to authorize) and priority for Park lands, and to condemn and flood private property (which Congress has specifically protected in Everglades legislation), by raising canal water levels without providing the congressionally mandated collateral flood protections.
• Unnecessary flooding of homes (including the city of Sweetwater) and tribal lands in the last 3 years was caused by Park Service intransigence, Administration-coordinated environmental group pressure, and CEQ interference, all aimed to distort the work of the Corps of Engineers.

RECOMMENDATIONS

(A) Instruct the Corps of Engineers to achieve the flood protection goals of the Central and South Florida Project, including flood protection of tribal lands, as well as the environmental goals.
(B) Instruct the Department of the Interior to cease urging the flooding and condemnation of homeowners.
(C) Instruct Corps and DOI to treat tribal Everglades equal to Federal Everglades, without discrimination.

CONCLUSION

Everglades restoration programs since the enactment of WRDA 2000 are in a crisis because Federal and State agencies have not taken seriously their duties to follow the law and to restore proper water flow and water quality. Each agency has

its own narrow procedures and goals, and none has committed fully to "getting the water right"; that is, none has committed fully to re-establishing natural water levels and water quality. No one suffers more from this failure of vision, from this failure of commitment, than the Miccosukee Tribe of Indians which has called the Everglades home for centuries

ATTACHMENT 1

THE MICCOSUKEE TRIBE IN THE EVERGLADES

I have served as Chairman of the Miccosukee Tribe of Indians of Florida for more than 12 years and as a tribal elected official for more than 20 years. At the outset, I want to provide some interesting information about the Miccosukee Tribe of Indians of Florida and the Tribe's role in the Everglades:

- The Miccosukee Tribe is a federally recognized Indian Tribe.
- Miccosukee Indian Country is within the Everglades (Water Conservation Area 3-A and Everglades National Park, within the Everglades Protection Area).
- The only Tribe with lands within the Everglades (Miccosukee Indian Country, consisting of Indian Reservation lands, congressionally recognized Perpetual Lease lands, congressionally established Miccosukee Reserved Area lands, and Miccosukee Dependent Indian Community lands within the Everglades Protection Area).
- Its members are the only people to live within the Everglades (Indian and non-Indian in Everglades Protection Area).
- The Tribe is approved with State status under the Clean Water Act.
- The Tribe has set federally approved water quality standards for the Everglades (including phosphorus).
- The Tribe's members are guaranteed by Congress the right to live traditionally within Everglades National Park and Big Cypress National Preserve.

ATTACHMENT 2

CONFLICTING PRIORITIES IN HYDROPERIOD RESTORATION AND THE LACK OF A VISION IN EVERGLADES RESTORATION

(By Dexter Lehtinen, Member, South Florida Ecosystem Restoration Task Force, August 26, 2002)

(Reprinted from the Task Force Report for 2002)

The Task Force Report, while admirable in many respects, fails to address one of the central problems in Everglades restoration—that is, the inherent and continuing conflict between agency programs or missions (including statutes) and the central goals of restoration (hyroperiod and water quality restoration). If these conflicts are not resolved in favor of hydroperiod and water quality restoration, and narrower agency advocacy of divergent goals is not eliminated, then Everglades restoration will fail. The Task Force Report's ambiguous reference to "short-term or interim management actions which are not immediately consistent with long-term goals" (pages 5 and 22) has been explained as (and should be properly understood as) referring to temporary adverse consequences of initial steps in implementing restoration projects. But it could be improperly twisted to justify adverse consequences of agency action which is not in any way an initial step or part of hydroperiod or water quality restoration. That is, some agencies directly damage hydroperiod and water quality for their own narrow goals (based on pre-existing agency missions or their interpretation of existing law).

When individual agency programs or missions conflict with broad restoration goals, the broad goals should prevail if restoration is to be achieved. This is a truth which neither agencies nor the Task Force are yet willing to face. In fact, the substitution of agency programs or missions over broad restoration goals is precisely the problem which restoration has unsuccessfully faced for many years and which has contributed to restoration delays and continued degradation.

Despite the apparent priority of hydroperiod (water levels) restoration to natural levels and water quality improvements, there are different agency goals or legal interpretations which conflict with or inhibit natural hydroperiod restoration. As a logical matter, it is clear that species which favor the current degraded and disturbed conditions of the Everglades will be adversely affected, in an immediate short-term sense, by natural hydroperiod restoration. It must be remembered that the current disturbed and degraded condition of the Everglades is "unnatural" because it differs from the historic natural conditions, which means that the Ever-

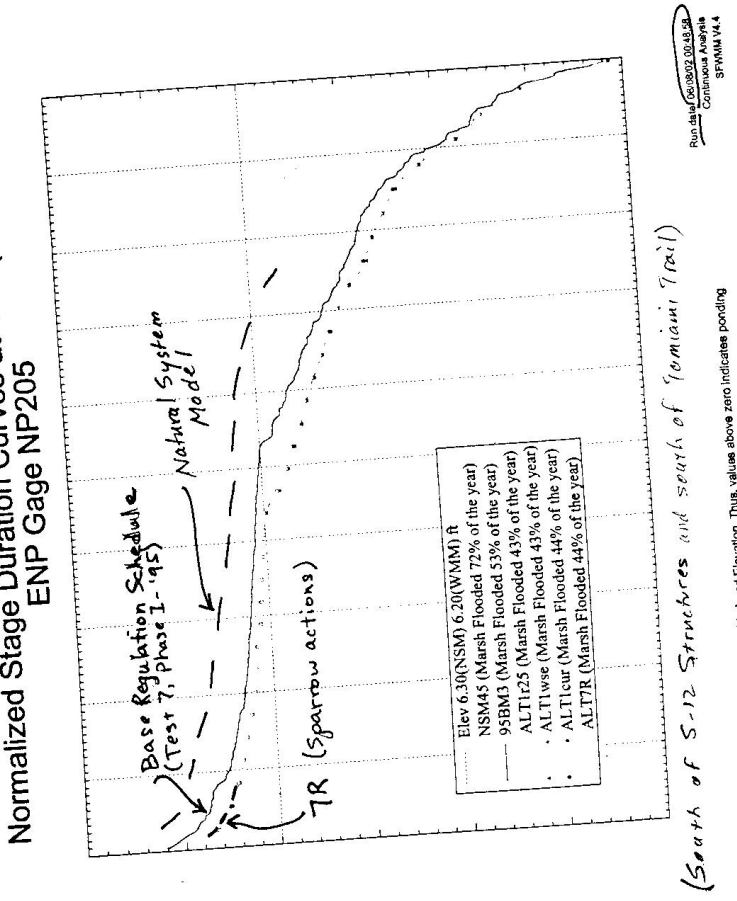
glades is a "degraded habitat" when measured against historic natural conditions. The historic conditions were not favorable to species other than those species which thrived in such historic natural conditions.

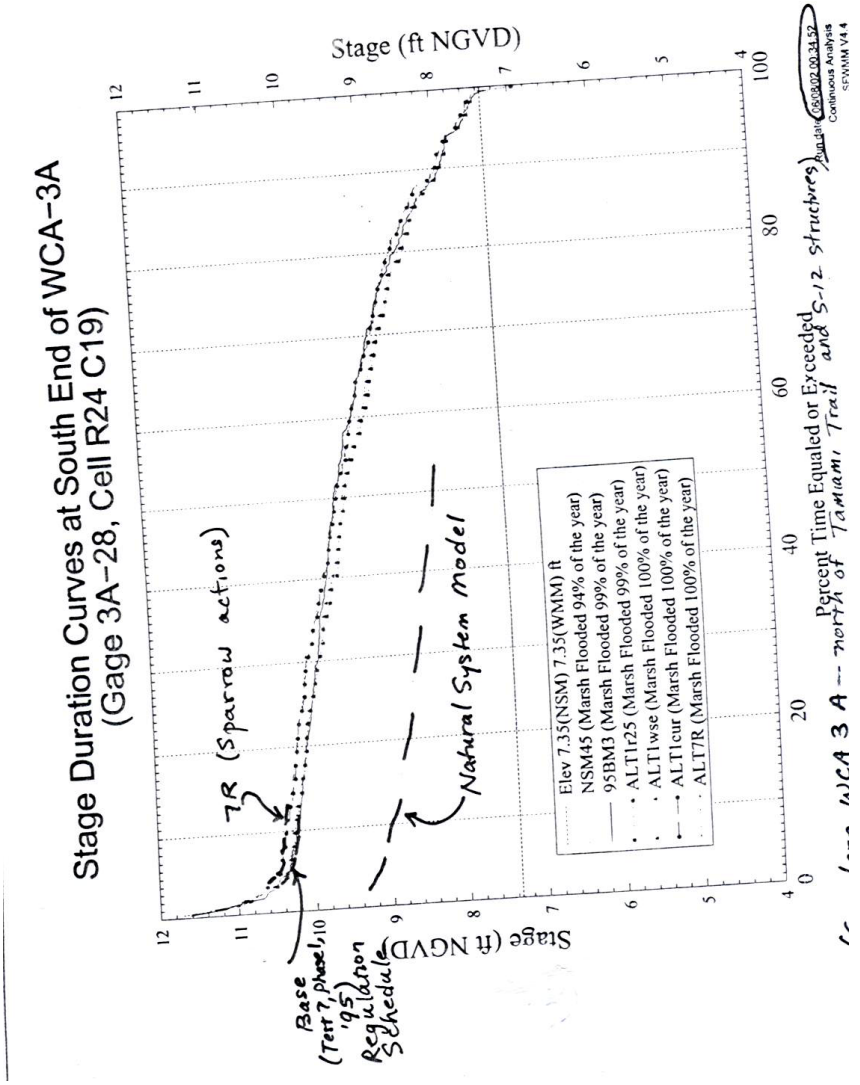
It both logically possible and factually demonstrable that certain species find the "degraded" habitat to be better for them than the natural habitat. Therefore, when restoration occurs, the movement from poor or "degraded" conditions toward "better" or natural conditions, is considered positive and progressive when measured against natural restoration standards. But this same positive movement instead constitutes a movement from good conditions toward poor conditions for any single species which currently favors the degraded conditions. Therefore, "habitat improvement" for the natural Everglades is instead "habitat degradation" for a single invasive species.

Natural restoration can occur only if natural restoration is given the priority over protection of the degraded habitat which a single species may favor. The long-term benefits of restoration must be accepted as superior to the short-term benefits of maintaining degraded conditions for the benefit of single species.

An outstanding example of such a problem is the current urging of the U.S. Fish and Wildlife Service (through Biological Opinions under the Endangered Species Act) to maintain unnaturally low water levels below Tamiami Trail (in Everglades National Park, south of the S–12 structures) in favor of the Cape Sable Seaside Sparrow, which favors such an unnatural habitat. This action has the secondary effect of maintaining unnaturally high water levels north of Tamiami Trail (in Water Conservation Areas and Miccosukee Tribal lands).

Charts 1 and 2 show that, under the actions sought by USFWS and proposed by the Corps of Engineers for 2002, water levels below Tamiami Trail will be lower than the Natural System Model shows would be natural conditions (the goal for restoration), while water levels north of Tamiami trail would be higher than the NSM shows would be natural conditions. The charts also show that the C&SF Project regulation schedule, the water management regime normally in effect prior to interim actions proposed for the sparrow, were likewise the cause of unnaturally low water south of Tamiami Trail and unnaturally high water north of the Trail—but that the current sparrow actions are worse than the regulation schedule, that the sparrow actions aggravate the unnatural conditions. That is, these actions, proposed and adopted subsequent to the establishment of restoration goals, move away from restoration rather than toward restoration.


Normalized Stage Duration Curves at Cell (R19 C16)
ENP Gage NP205
Base Regulation Schedule
(Test 7, Phase 1-'95)
Natural System
Model
TR (Sparrow actions)
Elev 6.30(NSM) 6.20(WMM) ft
NSM45 (Marsh Flooded 72% of the year)
95BM3 (Marsh Flooded 53% of the year)
ALT1r25 (Marsh Flooded 43% of the year)
ALT1wse (Marsh Flooded 43% of the year)
ALT1cur (Marsh Flooded 44% of the year)
ALT7R (Marsh Flooded 44% of the year)
(South of S-12 Structures with south of Tamiami Trail)
Run date 05/08/02 20:48:58
Continuous Analysis
SFWMM V4.4
Note: Normalized stage is stage referenced to Land Elevation. Thus, values above zero indicates ponding while below zero indicates depth to the water table.



This regression away from restoration highlights the common myths of Everglades restoration: (1) The Myth of a Restoration as the Priority (the false belief that everyone seeks restoration as a common priority); (2) The Myth of Progress (the assumption that at least we're making progress toward restoration, that what we're doing is helping); (3) The Myth of Money (the common claim that the main impediment to restoration is money); (4) The Myth of the General Federal Interest (the assumption that the Federal Government represents a general interest in overall restoration, rather than a narrow special interest; also the Myth of the Park, the Federal working premise that "Everglades" means just "Everglades National Park", not the larger Florida Everglades to the north); and (5) The Myth of a Shared Vision (the assumption that everyone seeks a return to natural conditions, rather than new conditions favorable to their special interest). Until these myths become reality, Everglades restoration will not and cannot be achieved.

STATEMENT OF PATRICIA A. POWER, CONSULTANT, SEMINOLE TRIBE OF FLORIDA

Introduction

The Seminole Tribe welcomes the opportunity to share our views on the progress toward implementing the Comprehensive Everglades Restoration Plan (CERP) authorized by the Water Resources and Development Act (WRDA) of 2000. For many years now, the Seminole Tribe of Florida has been an active participant in the multi-faceted efforts to restore the South Florida Ecosystem. As such, we have seen the value of our participation to the Tribe in being able to educate policymakers about the Tribe's concerns and needs. We have also found value in working with other stakeholders to formulate and refine policy positions and program options. We applaud the committee for bringing together today a representative group of stakeholders to update you on the progress made toward achieving ecosystem restoration in South Florida. A program developed and implemented though consensus has an improved prospect for successful restoration of the natural system while maintaining stability in flood control and water supply for South Floridians.

Our leading comment to this Committee on the Restudy, and later on the proposed WRDA 2000 legislation, was that a balanced approach is critical to the success of the grand restoration effort of which CERP is a central component. Now back before you, we wish to reiterate that a balanced approach throughout the implementation of CERP remains critical.

This testimony briefly introduces the Seminole Tribe of Florida before discussing the reasons the Tribe is highly committed to Everglades restoration. Next, this testimony outlines the status of the Tribe's Critical Restoration Project on the Big Cypress Reservation. The testimony also discusses the Tribe's major issues related to CERP implementation, and more specifically, comments on the proposed Programmatic Regulations as proposed by the Corps of Engineers (Corps) in early August.

The Seminole Tribe of Florida

The Seminole Tribe lives in the South Florida ecosystem. The Tribe relies on all aspects of a healthy ecosystem, including the Everglades, which provide many of our tribal members with their livelihood. Our traditional Seminole cultural, religious, and recreational activities, as well as commercial endeavors, are dependent on a healthy South Florida ecosystem. In fact, the Tribe's identity is so closely linked to the land that Tribal members believe that if the land dies, so will the Tribe.

During the Seminole Wars of the 19th Century, the Tribe found protection in the hostile Everglades and Big Cypress Swamp. But for this harsh environment filled with sawgrass and alligators, the Seminole Tribe of Florida would not exist today. Once in the Everglades and Big Cypress, tribal members learned how to use the natural system for support without doing harm to the environment that sustained them. For example, the Seminole native dwelling, the chickee, is made of cypress logs and palmetto fronds. It protects its inhabitants from sun and rain, while allowing maximum circulation for cooling. When a chickee has outlived its useful life, the cypress and palmetto return to the earth to nourish the soil.

In response to social challenges within the Tribe, tribal leaders looked to the tribal elders for guidance. Our elders taught us to look to the land, for when the land was ill, the Tribe would soon be ill as well. When we looked at the land, we saw the Everglades and supporting ecosystem in decline. We recognized that we had to help mitigate the impacts of man on this natural system. At the same time, we acknowledged that this land must sustain our people, and thereby our culture. The clear message we heard from our elders and the land was that we must design a way of life to preserve the land and the Tribe. Tribal members must be able to work and sustain themselves. We need to protect our tribal farmers and ranchers. Any plan to address restoration needed to address that balance.

Why Everglades Restoration? Why CERP?

At the Critical Project groundbreaking ceremony on the Big Cypress Reservation this past January, Tribal leadership expressed their concerns about the current condition of the land and water on the reservations, especially as compared to what they recalled from childhood. They spoke of the cypress and sawgrass, rains and fires, and wide-open skies. They also spoke of the hardships caused by the flooding and unreliable water supply. While acknowledging the tradeoffs, they cautioned against losing anymore of their environmental culture and applauded restoration activities. Their observations echoed those of the children of the Ahfachkee School who shared their growing awareness of their unique cultural values including a healthy Big Cypress Reservation ecosystem.

Moses Jumper, Jr., resident poet of the Big Cypress Reservation, shared his poetic insights into the unique imagery and values of the Everglades throughout the groundbreaking ceremony. The following illustrates Mr. Jumper's keen observations and heartfelt concerns about the declining health of the ecosystem.

RIVER OF PEACE

(By Moses Jumper, Jr.)

In my early years as a young boy,
I climbed the willow trees that covered
The river's edge.

I would watch the squirrels play in the
Mighty oaks and I would laugh as they
Dropped acorns into the gentle river below.

King Fisher, O-pa, snake bird and hawk,
They would all sit high in the cypress
Tree as they peered down ready to scoop up
An unsuspecting meal.

The river gently flowed, going nowhere,
Yet, bringing life to the glades. The
River was peaceful and so was I . . .

It was a good time to be alive . . .

Then one day they came. They surveyed
The land and said "This river goes no
Where and is useless." We will dig a
Larger canal and will let it run to the sea.

The oaks went down as did the cypress and
Willow tree.

Soon the land became dry and parched.

O-pa was gone as well as King fisher,
Snake bird and hawk . . .

I cried, for what the giver of breath
Had given, we destroyed and I knew they would
Be no more . . .

Without CERP, as modified through the adaptive management process over the years, the Tribe believes that the ecosystem will not be able to support either the natural system or the built system, the heading the urban, suburban, and agricultural areas are now collected under. The Tribe views the natural and built systems as intricately linked. As CERP projects are built and become operational, the pressure from the built system on the natural system will be reduced. But without CERP, the willow and oaks and King Fisher and O-pa (the Creek word for "owl") are unlikely to come back.

Seminole Everglades Restoration Project Update

Recognizing the needs of our land and our people, the Tribe has developed a Water Conservation Plan to mitigate the harm to the land and water systems within our Reservations while ensuring a sustainable future for the Seminole Tribe of Florida. The Big Cypress Reservation is the first of our Reservations for which such a plan has been implemented. The Tribe is in the early stages of developing a plan with similar goals on the Brighton Reservation.

On Big Cypress, this restoration plan will allow Tribal members to continue ongoing farming and ranching activities while improving water quality and restoring a natural hydroperiod to large portions of the native lands on the Reservation and ultimately, positively affecting flora and fauna of the Big Cypress National Preserve and Everglades National Park. Portions of the WCP, including a conveyance canal that will bring water from the east side of the Reservation to the water quality and supply components on the western side of the Reservation have been identified as a "Critical Project" under section 528 of WRDA 1996. As you are aware, Critical Restoration Projects are projects that were determined to provide independent, immediate, and substantial restoration, preservation, and protection benefits to the South Florida Ecosystem. In addition, the Tribe is working closely with the National

Resource Conservation Service to identify appropriate programs to complete construction of the water quality and supply components on the eastern side of the Reservation. The Tribe in conjunction with the NRCS has also completed a project to restore wetlands on the Reservation under the Wetland Reserve Program, and another such project is currently underway.

The Big Cypress Critical Restoration Project is in the construction phase and is moving forward smoothly at this time. The goals of this project include improved water quality and hydrology in a natural area on the Reservation known as the Native Area, and improve water quality and hydrology in the Big Cypress National Preserve as water flows off the Reservation. The Project will also offer enhanced water storage and flood control for the Reservation. The first phase of the project, the East Conveyance Canal has two purposes: first, it is the backbone of the water storage and treatment elements in the four western basins of the Reservation; and, second, it will convey water the Tribe has been entitled to receive from the South Florida Water Management District as a result of the Tribe's transfer of the land and water rights to a part of the historic Big Cypress State reservation to the State of Florida to be managed for Everglades restoration. [See the Seminole Land Claims Settlement Act of 1987.] This first phase is scheduled to be completed by the end of this year.

The second phase of the project, construction of water treatment and storage areas on the western side of the Reservation, is currently in the design and planning phase. Phase 2 construction is anticipated to begin in August2003 and be completed in 2006.

The Big Cypress Critical Restoration Project is a large and complicated project to which the Tribe has made a substantial and long-termed financial and cultural commitment. This project is the only CERP-related project scheduled to be constructed in the Big Cypress Basin until 2015. This project will reconnect historic sheetflow of good quality water to stunning old-growth cypress swamps on the Reservation and into the Big Cypress National Preserve. The restoration benefits, balanced with addressing the related water needs of the Tribe on the Big Cypress Reservation, clearly justify the joint investment by the Tribe and the Federal Government.

General Comments on CERP Implementation

As indicated previously, the Tribe's over-riding principle applied to our analysis of the development of CERP applies to the implementation of CERP as well—and that is balance. Lack of balance is the cause of the problems CERP is directed to correct. The environmental crisis in South Florida was brought about by the Central & Southern Florida (C&SF) Project so efficiently achieving its congressionally mandated goals of providing flood protection and water supply to the farms and families of Florida, without fully appreciating the resulting impacts on the natural system. As the damage to the natural environment became evident, all entities began to recognize the interdependence of the natural system and the "built" environment. CERP acknowledges that while restoration of the environment is paramount, the other related water needs of the region, as addressed by the C&SF Project, must be provided for as well. The Tribe supports CERP implementation providing protection to the natural systems, the people, and the agricultural communities that share the South Florida Ecosystem.

The success of CERP authorization and implementation to date results from the emphasis on obtaining input from a wide array of stakeholders and recognizing the importance of addressing natural and human water needs in a balanced way. Keeping all stakeholders committed to CERP will require careful project sequencing to guarantee that the benefits of the projects are equitably distributed over time and space, while ensure that measurable benefits are produced in a reasonable period of time.

Careful scientific analysis completed through adaptive assessment will need to support well-informed policy decisions to accomplish productive adaptive management—all of which requires active participation by a broad cross-section of stakeholders. Modeling efforts, as the basis for both prospective planning and retrospective monitoring and analysis, must reflect that all components of the ecosystem-the natural system and the built environment-are interdependent.

The pace of both Federal and State funding (along with the Tribe's funding of the Big Cypress critical project), the execution of the historic President-Governor agreement guaranteeing benefits to the natural system, and the proposed Programmatic Regulations all indicate good progress toward the end goals of CERP.

Comments on the Proposed Programmatic Regulations

The Tribe notes the Corps' exemplary outreach efforts applied to the development of the proposed rule on the Programmatic Regulations (Regulations). The Corps,

along with the Task Force and the Department of Interior, worked hard to ensure that the Tribe had ample notice and opportunity to review, discuss, and comment on the Regulations. Many of the Tribe's concerns expressed regarding the December 2001 draft were addressed by the Corps' proposed rule. While the Tribe will provide formal comment on the current draft of the proposed rule, our comments on the Regulation are positive overall.

The Tribe believes that it is critically important to clearly define policy verses technical decisions, and to clearly assign responsibility and accountability for each. It is crucial that the policy-level consensus building be conducted in public with input from the public. For example, the project management team, with the assistance of RECOVER, will formulate project alternatives prior to the selection of the alternative to undergo the analysis necessary to complete a Project Implementation Report (PIR). The tribe believes that selecting the final alternative is a policy level decision; therefore, the Tribe recommends that the Task Force review the alternatives and make an alternative recommendation to the project's managers. The policy-level consensus building conducted in public with input from the public is crucial for 2 purposes—namely, building support for the selected alternative, and flushing out serious problems prior to heavy investment in developing the documentation necessary for a PIR. Another example is in the operation and application of the recommendations of RECOVER. The roles of the leadership team and the individual research groups need to be clearly delineated.

The Tribe further believes that the Programmatic Regulations must address the issue of source switching as mandated by WRDA 2000. This requirement is unique to CERP and there is no historic counterpart in Florida law to guide how this process will occur. As a result, this issue has the potential to become a roadblock to CERP implementation without clear guiding principles for developing how and when source switching will take place. While it may be too early in CERP implementation to define this process in this version of the Regulations, at a minimum the Regulations need to provide a framework for determining what constitutes an existing legal source. The Tribe is working on language to be submitted to the Corps on this issue.

Finally, the Tribe supports the Corps setting up interim goals in the Regulation for restoration benefits and targets for other related water goals. We urge that these measures while analyzed separately, be done so with similar procedures and weight. This is crucial if we are to maintain the balance that is so important to successful CERP implementation.

Conclusion

The Seminole Tribe is unconquered. Our ancestors refused to be forced out of Florida. They fought over a period of 44 years in the three Seminole wars to maintain our freedom, to keep control of our destiny, and to remain in Florida. The Everglades provided our ancestors protection from repeated attacks.

Now, in 2002, the Seminole Tribe contributes to the protection of the Everglades ecosystem. Our people are willing participants in this massive restoration undertaking. The Big Cypress Critical Restoration Project is an integral part of the overall ecosystem restoration. We look forward to our neighbors and all stakeholders continuing to make the necessary commitment to restoring the South Florida ecosystem through CERP implementation and other programs. Without such a commitment, restoration will not be achieved.

RESPONSES BY PATRICIA POWER TO ADDITIONAL QUESTIONS FROM SENATOR GRAHAM

Question 1. Can you describe what will happen to the Everglades if no action is taken on CERP?

Response. Without CERP, as modified through the adaptive management process over the years, the Tribe believes that the ecosystem will not be able to support either the natural system or the built system, the heading the urban, suburban, and agricultural areas are now collected under. The Tribe views the natural and built systems as intricately linked. As CERP projects are built and become operational, the pressure from the built system on the natural system will be reduced. But without CERP, restoration of flora and fauna are highly unlikely, and the natural system's ability to continue to provide water supply and flood control support for the built system will continue to diminish.

Question 2. What actions does Congress need to take in the near and distant future to move the CERP forward?

Response. Congress will need to pass annual appropriation bills to adequately fund the Corps and other Federal agencies participating in CERP implementation.

Inadequate funding will impede the pace of on-the-ground progress. Funding needs will span from scientific research to support adaptive management and maximize effective project design to project design, construction, and operation. The appropriations process may create an annual opportunity for Congress to evaluate the progress of CERP implementation.

Recurring congressional actions also include the required review and approval of the PIRs when they are in order and of the recommended project design. Congress, the Senate Environment and Public Works and House Transportation and Infrastructure Committees in particular, can use this process to monitor the adherence to the broad goals authorized in CERP and the application of adaptive management principles to ensure the most effective outcomes.

Question 3. Have you had ample opportunity to communicate with the Corps on your views regarding programmatic regulations, project execution, and other CERP issues?

Response. The Tribe notes the Corps' exemplary outreach efforts applied to the development of the proposed rule on the Programmatic Regulations (Regulations). The Corps, along with the Task Force and the Department of Interior, worked hard to ensure that the Tribe had ample notice and opportunity to review, discuss, and comment on the Regulations. Many of the Tribe's concerns expressed regarding the December 2001 draft were addressed by the Corps' proposed rule. The Tribe provided formal comment on the current draft of the proposed rule; our comments on the Regulation are positive overall.

While the Tribe maintains positions on various committees that provide CERP policy direction and or oversight (the South Florida Ecosystem Restoration Task Force and its Working Group, RECOVER, the WRAC) and thereby has access to briefings on CERP issues, we are concerned about our ability to effectively monitor ongoing and future CERP technical and policy decisionmaking processes with current resources. It is important that the process drive, not impede, progress toward restoration. The process needs to be efficiently established to allow stakeholders to actually monitor program and project development. Technology must be used to enhance access to technical and policy information. The current meeting schedules are daunting. The creation of new committees to address new implementation issues are they arise will exacerbate the meeting and information flow burden.

As we discussed in our testimony, it is critical that all stakeholders remain involved in CERP implementation. Effective involvement is dependent on access to information in formats that allow review and understanding of the complex plan. The burden to maximize access to CERP implementation information will fall to the implementing agencies. Complex studies and project reports should be summarized in a way to allow the general public to review and understand the information. In addition, the implementing agencies should create opportunities to present information to and collect input from stakeholders collectively to foster mutual support and ease the burden of remaining involved.

Question 4. Can you give us a status update on your project being completed under the critical projects authority?

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STATEMENT OF ROMAN GASTESI, MIAMI-DADE COUNTY WATER RESOURCES MANAGER

Chairman Jeffords, Ranking Member Smith, and members of the committee, thank you for the opportunity to comment on the Comprehensive Everglades Restoration Plan (CERP). I am particularly gratified to be testifying in the presence of Florida Senator Graham, whose diligence and passionate work on Everglades Restoration has helped make the CERP a reality. Miami-Dade County would also like to recognize the efforts of this Senate Committee on Environment and Public Works in moving this historic restoration effort along. Thank you.

My name is Roman Gastesi, and I am the Water Resources Manager for Miami-Dade County (County) and a member of the South Florida Ecosystem Restoration Working Group.

Miami-Dade County is strongly committed to the Comprehensive Everglades Restoration Plan (CERP); so committed, that Mayor Alex Penelas and County Manager Steve Shiver established the Office of Water Management to ensure the County's active participation and dedication of resources to the Plan's implementation.

The County recognizes that preserving the delicate balance between our environment, urban areas, and agriculture is critical to all of South Florida. The long-term success of the CERP relies on all interested parties working together within a comprehensive and inclusive process. The region consists of 16 counties, 150 municipalities, two Indian Tribes, a multitude of State and Federal agencies, public and private utilities, and agricultural and environmental interests. The County acknowledges the need to work together, coordinate efforts, and come to a reasonable compromise to ensure that this vitally important project becomes a reality.

Today, South Florida is home to 6.5 million people, and the population is expected to double by 2050. The region also receives more than 37 million tourists annually. The quality of life in South Florida and the region's $200 billion economy depend on the health and vitality of the Everglades, Lake Okeechobee, and the entire South Florida ecosystem. It's important to recognize that the coral reefs, estuaries, and shallow waters of areas like the Florida Keys, Biscayne Bay and Florida Bay, along with offshore waters, support populations of recreational and commercial fisheries that can only benefit from our efforts to work together on restoration. Likewise, our region's wetland and upland areas provide us with invaluable benefits such as wildlife habitat, recreational opportunities, drinking water supply, water filtration, and stormwater retention—all of which benefit our residents and visitors alike. Continued cooperation among interested parties in the restoration process will serve to enhance these benefits for all parties. Agriculture in Miami-Dade County is an important component of the regional economy and way of life. Working together with all stakeholders, the County will ensure that CERP will provide healthy water supplies for the natural system as well as urban and agricultural interests.

Our policy body, the Miami-Dade County Board of County Commissioners, has consistently expressed its commitment to Everglades Restoration. For example, on November 20, 2001, the Miami-Dade County Board of County Commissioners approved Resolution No. R–1311–01 recognizing that protecting and restoring the "valuable, unique, irreplaceable resource of the Everglades" is in the best interest of the County, and reaffirmed Miami-Dade County's commitment to work in partnership with the Federal Government, the State of Florida, and other public and private interests.

The County supports the fundamental concept of "adaptive management" which has been adopted for the implementation of this Plan as part of the effort to achieve a balance of benefits as restoration progresses. Finding the "balance" while implementing this Plan is the biggest challenge. Some of the restoration efforts, including increased canal and groundwater levels, have the potential to negatively impact flood protection. Conversely, some flood mitigation projects, including lowering canal and groundwater levels, have the potential to negatively impact the health of natural systems. Using the "adaptive management" approach will allow for continuous refinements as the CERP progresses.

We are encouraged by the progress made in recent years. For example:

- Teams of scientists and other technical experts are working together to establish the performance measures and monitoring systems that will make it possible to systematically track the progress of this Plan.
- The evolution of a transparent process that, on a project-by-project basis, strives to involve the public, in addition to the Federal, State, local and Tribal agency interests following CERP activities.
- The binding agreement between the Governor of Florida and the President of the United States regarding the implementation of the Everglades Restoration Plan that reads "the State shall ensure, by regulation or other appropriate means, that water made available by each project in the Plan shall not be permitted for consumptive use or otherwise made unavailable by the State until such time as sufficient reservations of water for the preservation of the natural system are made under State law".
- The work of the Army Corps of Engineers (Corps) and the South Florida Water Management District staff in providing early outlines and an initial draft of the Programmatic Regulations to ensure stakeholder participation and understanding of this critical step in the process. As the comment period for the proposed regulations draws to a close, the Corps continues to provide presentations on the subject at numerous meetings. While we continue to evaluate the proposed rule, the effort to address stakeholder concerns is obvious in the latest product.
- The decision to advance the initiation of the Biscayne Bay Coastal Wetlands project component to provide the Bay with early benefits.
- A comprehensive Project Delivery Team meeting held earlier this year that brought hundreds of CERP participants together to coordinate efforts and help expedite the Plan's implementation.
- Three authorized Pilot Projects within Miami-Dade County, L–3 1 Seepage Management, Wastewater Reuse, and Inground Reservoir Technology, that continue to move forward in an effort to resolve major uncertainties and answer questions critical to the Plan's success
- The formation of a new Project Delivery Team to explore the possibility of providing additional clean water to both Everglades National Park and Biscayne Bay.

Miami-Dade County will continue to do its part to protect and restore the South Florida ecosystem. Protection of the Everglades and Biscayne Bay has been County policy for almost a generation, beginning with the 323 square mile East Everglades Moratorium Area Study in 1974, adoption of the Comprehensive Development Master Plan in 1975 and subsequent amendments, and development and implementation of the Biscayne Bay Management Plan in 1981. County interests in protecting the Everglades and wetlands from inappropriate urban development and associated need for drainage derive from the County's long-term requirements for municipal water supply for the growing urban population, urban economic expansion, commercial and sport fisheries, tourism, agriculture, and prevention of public health and safety hazards.

Miami-Dade County has demonstrated leadership in protecting State and Federal interests in the Everglades and natural systems. Miami-Dade County is not approving zoning for suburban development in the Everglades or proposed Water Preserve Areas; has not programmed or constructed urban infrastructure or services for such areas and has resisted such proposals by others. In 1990, the citizens of Miami-Dade voted to tax themselves to provide funding for the acquisition and management of environmentally endangered lands. Since that time, and in partnership with the

State of Florida and non-government agencies, more than 10,000 acres of wetlands and forest have been protected through acquisition. Miami-Dade County is also a leader in promoting infill and revitalization of currently developed urban areas, and in protecting ground and surface water quality through environmental monitoring, regulation and educational programs.

In addition, Miami-Dade County is currently embarking on a landmark watershed plan that will utilize innovative land use tools in the final undeveloped frontier of South Miami-Dade County to ensure successful implementation of water management operations and capital improvements to be carried out through CERP.

In conclusion, although some critics may focus on uncertainties and delays, we do not believe these are reasons to abandon our commitment to preserving and restoring this national treasure. We must not succumb to the will of the naysayers; nobody said it was going to be easy. Instead of dwelling on problems, we must maintain patience and courage to work through the challenges and come up with solutions. The consequences of not moving forward are great. We simply must continue to work together and move forward. The health of the natural system is directly linked to the health of the people and economy of Florida and the Nation.

STATEMENT OF SHANNON ESTENOZ, NATIONAL CO-CHAIR, THE EVERGLADES COALITION, AND DIRECTOR, WORLD WILDLIFE FUND, EVERGLADES PROGRAM

On behalf of the 41 environmental, civic, and recreational organizations that comprise the Everglades Coalition, which collectively represent nearly 6 million members and supporters, and on behalf of the Everglades Foundation and the Everglades Trust I want to thank the committee for the opportunity to submit testimony regarding the status and progress of the Comprehensive Everglades Restoration Plan (CERP). I want to thank committee Chairman Jeffords for his continued support of this important national mission. The committee has played a critical role in moving Everglades restoration forward, and was specifically the legislative "cradle" in 2000 for the CERP authorizing legislation. I also want to express gratitude for the leadership and support of Senators Bob Graham and Bob Smith, and other members of the committee who have taken a keen interest in this unique and wonderful ecosystem and have dedicated so much time and effort to its restoration.

I. INTRODUCTION

The Comprehensive Everglades Restoration Plan (CERP) is a massive and complex plan to change the landscape of south Florida. It is a menu of modifications, additions to and subtractions from the Central and Southern Florida Flood Control Project (C&SF Project), the massive drainage system originally authorized in 1947 by the 88th Congress. CERP exists because the C&SF Project performed its water supply and flood protection purposes beyond expectations but had unintended and devastating consequences for the Everglades ecosystem. The CERP comes at the 11th hour for the Everglades, and has the potential to rescue this ecosystem from water management practices that have devastated its ecology.

We thank Congress for providing the opportunity to undertake this unique mission, which will set important precedents for ecosystem restoration the world over. The task at hand is to lay groundwork that ensures that the mission will be a success. The Coalition's views on how to do this are the focus of our testimony today. First, we turn to two themes about which there has been much discussion over the past 2 years, and likely today as well.

Confronting Various Types of Uncertainty

The Everglades series published in the Washington Post this summer focused attention on various types of uncertainty associated with CERP. The Coalition firmly believes that most of the issues raised in that series can be confronted and overcome successfully using the Plan itself and the statutory direction and tools provided by Congress. When thinking about the uncertainties associated with CERP, it is helpful to distinguish between those that are scientific or technical in nature, and those that are political.

Although there is still much to learn about the complex ecology of the Everglades, the technical uncertainties associated with CERP are due less to our lack of ecological understanding, and more to the problem of restoring what remains of the ecosystem within the confines of what has been impacted by development and agriculture.

The 1999 Plan employs technologies like Aquifer Storage and Recovery (ASR) and deep reservoir storage that present us with areas of technical uncertainty including expected level of performance, water quality issues and issues of aquifer protection.

But as we have seen with the recently completed Indian River Lagoon (IRL) Feasibility Study, when specific projects are formulated we may find alternative approaches that present reduced implementation risk and are potentially more ecologically beneficial. The IRL plan employs large-scale wetland restoration, (relying on the natural system to store water) and has garnered broad and enthusiastic stakeholder support. The Coalition is confident that if given clear program goals, and implementation flexibility, the Corps will find many more opportunities to improve upon the approaches laid out in the 1999 Plan.

Another key aspect of technical uncertainty that can and must be confronted as the plan moves forward is the extent to which the Plan delivers restoration benefits to the central and southern Everglades early in the program. Plan formulators understood that the 1999 plan would have to be improved if we are to expect significant restoration benefits in this part of the system during the first half of the implementation period. Fortunately, the Corps has itself done analysis that shows that significant restoration benefits can be provided within this timeframe and budget. This gives the Coalition confidence in the overall potential for success of the project, but it also requires that good interim goals be established to guide the development of the project, and that excessive legal commitments to the secondary goals of CERP not be allowed to constrain the program.

In addition to technical uncertainties, there is political uncertainty associated with CERP implementation. Not only does the Plan face the unavoidable flux of multiple election cycles and of shifting national economic conditions, but it also faces the politics of growth, development, and agriculture in Florida. The CERP cannot be implemented in a political and economic vacuum, nor can it be implemented fast enough to escape the "real-time" pressures of population growth. The demands on the Everglades grow every day while the needs of the Everglades remain unmet. While the Water Resources Development Act of 2000 (WRDA 2000) respects the jurisdictional authority of the State of Florida over particular aspects of Everglades restoration and management, the Act recognizes that the Federal investment in restoration must be protected. The best way to protect that investment from political uncertainty is to establish an appropriate regulatory framework for CERP implementation that seeks to ensure that restoration benefits are delivered to the Everglades. Political uncertainty obviously cannot be eliminated, but we can lay a foundation for CERP that makes the implementation process less vulnerable than it otherwise would be.

WRDA 2000 reflects the recognition that CERP faces many challenges in the coming decades. Congress understood that Everglades restoration is a new type of mission for this Nation, one that has some inherent and unavoidable uncertainties, but that those uncertainties need not prevent us from moving forward to save the Everglades. Restoring the Everglades with CERP doesn't require miracles, it requires leadership and clarity of purpose. Fortunately this committee provided much leadership and clarity when it crafted the Restoring the Everglades, An American Legacy Act (REAL). The REAL gave the implementing agencies virtually all the tools necessary to overcome uncertainty and restore the Everglades. It is now incumbent upon those agencies to implement those tools.

What Constitutes a Full and Fair Partnership Between the State and Federal Government?

The Coalition appreciates the importance of the State-Federal partnership in CERP implementation, and holds that to be "full and fair," the nature of the partnership should reflect the realities facing the Everglades, and be shaped in a way that has the best chance of achieving the goals and purposes of CERP. The debate about the State-Federal partnership thus far has been based, in our view, largely on the State of Florida's notions of what constitutes "full and fair". The Coalition holds that the influence of this perspective in the development of the draft programmatic regulations, for example, has resulted in a draft that gives the State of Florida a disproportionate and utterly inappropriate role in various aspects of CERP that we believe will jeopardize the ability of CERP to achieve its restoration goals.

In crafting and contemplating what constitutes a full and fair State-Federal partnership, it is important that the Federal Government not lose sight of the fact that that there are matters of public policy, which will have a decisive impact on the success of CERP and which already lie exclusively within the purview of State and local government. Reservations of water under State law is the most obvious example. Land use decisionmaking that generates increased demands for water supply and flood protection is another extremely significant example. Indeed, the two most important factors in the restoration and management of the Everglades are the amount of land and water available to do so, and the State of Florida argues that it has sole sovereign authority over both of those factors.

And when we speak of fairness to the Federal taxpayer, which is of concern to this committee, we must consider the pressures and obligations under which State agencies must implement these and other relevant laws, and candidly consider the track record to date. That track record is reflective of the relatively strong protections that water supply and flood control interests enjoy under State law, and the lack of corresponding protections for natural systems like the Everglades. While the State has some discretion to consider restoration needs in its planning and permitting decisions, restoration has standing only as one of several competing factors, and does not enjoy a position of priority under State law. Indeed in every recent example, the State's regulatory action has favored the issuance of the permit or the planning approval for private development over the preservation of restoration options. Just 4 months ago, in fact, the political appointees who comprise the South Florida Water Management District Governing Board chose not to exercise their authority to protect the integrity of CERP, and granted a permit to one of the region's largest developers for a 500-acre development proposed to be constructed in the footprint of an important CERP project.

The most apt, and troubling, examples of how competing State missions can influence restoration efforts can be found in two important federally authorized restoration projects that predate WRDA 2000. The C–111 Project, along with a component of the Modified Water Deliveries Project, were recently modified at the behest of the South Florida Water Management District, which had in turn been pressured by local county commissioners coping with urban sprawl and agribusiness on the border of Everglades, to provide significant and previously unplanned-for drainage benefits. It is now uncertain when, and even whether, these components will provide their authorized restoration benefits. The Coalition points to the precedents, not in the interest of assigning blame or questioning the commitment of individuals to the Everglades, but simply to draw attention to what is critical this committee recognize: that the State and its agencies—as a matter of both law and politics—will always be subject to intense pressures from local constituencies that may conflict with the Federal interest.

These realities exist and threaten to undermine CERP even as the State argues for an increased leadership role in the Federal legal framework of CERP implementation, a role that is not contemplated by WRDA 2000. This committee should be fully aware that the State of Florida is not in a position to protect the Federal investment in CERP. In the Coalition's opinion, there is far more work to be done at this point by the Federal Government to create a role for itself commensurate with the financial investment it is making in CERP implementation, not visa-versa. And as we explain below, WRDA 2000 of course provides precisely the direction and authority to Federal agencies to craft that role.

ON THE IMPLEMENTATION OF CERP

The body of the Coalition's testimony is divided into two general parts, both of which address issues we believe are integral to a CERP implementation process that will ultimately restore the Everglades. First, the Coalition believes that the assurance provisions of WRDA 2000 must be implemented, as we believe Congress intended, and consistent in every way with the spirit of the law. One of the most fundamental purposes of CERP and its authorizing legislation is to level the playing field for the Everglades, and WRDA 2000 compelled changes to the regulatory regime to provide for this. The CERP cannot be implemented successfully under current modes of agency action and under the current regulatory umbrella, unless the assurances provisions are fully implemented. Furthermore, unless the regulatory playing field is leveled, the Everglades cannot possibly compete with water supply and flood control interests for water resources under conditions of scarcity and competition in the near future and throughout the implementation period. The Everglades must be provided adequate regulatory protection and status to vie with the comparatively strong legal protections already afforded water users and recipients of flood protection.

The Coalition is particularly concerned about the programmatic regulations, the cornerstone of the WRDA 2000 assurances provisions, which the U.S. Army Corps of Engineers will promulgate by the end of the year. Fundamental changes must be made to the draft regulations if they are to establish a new regulatory structure sufficient to protect the Everglades from the politics and legal realities of growth and the uncertainties of science and engineering. The Coalition seeks this committee's assistance in encouraging significant revision of the draft regulations.

Second, it is critically important that the individual CERP projects be implemented expeditiously due to encroaching urban development, escalating costs of delay, and impending estuarine collapse. In response to growth pressures in south

Florida, land values escalate continuously, and like any prospective land buyer, government must move quickly to maximize cost savings on land acquisition. Land acquisition and individual restoration projects must move forward expeditiously if we are to forestall continued degradation of the Everglades and achieve expected restoration benefits.

PART 1

A. ASSURANCES THAT RESTORATION BENEFITS WILL BE ACHIEVED BY THE PLAN

In its deliberations in 2000, Congress recognized quite well that the politics and legal realities of water, development, agriculture and growth in Florida could easily sidetrack CERP. The concern was that, as had occurred in the past, the water supply and flood protection benefits woven into the project might be maximized at the cost of restoration benefits, thereby jeopardizing the Federal investment in Everglades restoration. Although the CERP was designed to meet all predicted needs, ecosystem and built system alike, conflicts are certain, given the realities of funding, engineering and scientific uncertainties, and political expediencies.

Moreover, Congress recognized that CERP as presented to it in 1999 was a conceptual "framework" with many uncertainties and opportunities for improvement. Indeed, the committee emphasized the need for "adaptive management" partly in response to significant questions raised about aspects of the original plan by the Department of Interior, independent scientists, and the environmental community.

Accordingly, WRDA 2000 enacted a system of "assurances" to ensure that the goals and purposes of the Plan, in particular those related to restoration, are achieved. The programmatic regulations are at the center of this system of assurances. WRDA 2000 requires that

> "the Secretary shall, after notice and opportunity for public comment, with the concurrence of the Governor and the Secretary of the Interior, and in consultation with the Seminole Tribe of Florida, the Miccosukee Tribe of Indians of Florida, the Administrator of the Environmental Protection Agency, the Secretary of Commerce, and other Federal, State, and local agencies, promulgate programmatic regulations to ensure that the goals and purposes of the Plan are achieved" 601(h)(3)(A)

Like most regulations, the programmatic regulations are to bridge the gap between the generalities of statutory direction and the specificity of agency action, ensuring that congressional intent is reflected in the details of CERP implementation. But these regulations are more than simply implementing regulations—they have a singular role to assure the Federal interest in this project is satisfied, in the face of inherent conflicting priorities, engineering and scientific uncertainties, and the need for restoration performance improvement. In short, the letter and spirit of the assurances required by WRDA 2000 must be reflected in the programmatic regulations. See 601(h)(3)(C)(i) (The programmatic regulations are to "establish a process to . . . (III) ensure the protection of the natural system consistent with the goals and purposes of the Plan, including the establishment of interim goals . . .)

The Coalition has identified a few general principles that we believe must be embodied in the implementation of the WRDA 2000 assurances provisions, including programmatic regulations. Unfortunately, as we discuss below, the current draft programmatic regulations, published in the Federal Register on August 2, 2002, fail in this essential task.

General Principle 1: The programmatic regulations must establish ecosystem restoration as the primary and overarching purpose of the CERP, and must preclude the achievement of water supply and flood protection goals at the expense of restoration goals.

WRDA 2000 states "The overarching objective of the Plan is the restoration, preservation, and protection of the South Florida Ecosystem while providing for other water-related needs of the region, including water supply and flood protection. The Plan shall be implemented to ensure the protection of water quality in, the reduction of the loss of fresh water from, the improvement of the environment of the South Florida Ecosystem and to achieve and maintain the benefits to the natural system and human environment described in the Plan, and required pursuant to this section, for as long as the project is authorized." Section 601(h)(1)

Thus, the CERP must accomplish three broad goals.

First, it must alter the hydrology in the remaining Everglades so that the system can recover from the damage it has sustained over the past five decades. In doing so it must establish the physical, regulatory and operational conditions necessary to protect a restored Everglades from future degradation. Second, it must continue

to serve its originally authorized purposes for the population that existed in the region on December 11, 2000 (a population more than triple that for which the project was originally designed). Third, it must provide certain water supply and flood control benefits without compromising the achievement of interim and final restoration goals.

If the Plan is reasonably successful, its components will capture and store enough water to restore the Everglades and provide for some portion (perhaps most or all) of the projected population growth of the next 50 years. The Everglades Coalition supports this win-win scenario. The assurances provisions of WRDA 2000, however, were not created to address such a "best case scenario." They were prudently crafted to cope with "worse and worst case scenarios." In the event that CERP components do not perform as well as expected, the Coalition strongly objects to a corresponding lose-lose approach to parceling out benefits. In other words, the argument that under such scenarios there should be a "balancing" of available benefits between the Everglades and water for growth is completely unacceptable. The Coalition cannot support a CERP implementation process that employs such an approach. While there are numerous opportunities for addressing the needs of south Florida's growing population, including the CERP projects, the CERP is the Everglades' last hope.

Moreover, even if conflicts between expected benefits were never to appear, the political pressure to satisfy additional water supply and flood protection needs over the natural system will be applied continuously. Such pressures will be present in a myriad of agency decisions, down to some of the smallest design decisions. It is accordingly critical that a priority for ecosystem restoration be embedded in the programmatic regulations to help withstand such pressures and serve as protection—the only protection—for the Federal interest in Everglades restoration.

Fundamentally, CERP is a remedial program that makes no demand on existing human users to cease and desist the activities that have harmed and continue to harm the Everglades. The Plan in fact very specifically sets out to rescue the Everglades while accommodating those activities, and WRDA 2000 actually holds those activities harmless from CERP implementation. However, water supply and flood protection benefits for additional growth must not be achieved at the expense of achieving interim and final remedial goals in the Everglades.

The Draft Programmatic Regulations

The draft regulations do not establish—in any matter of form or substance—restoration of the Everglades as the primary and overarching objective of the Plan. On the contrary, throughout the draft regulations equal priority is consistently placed on restoration, water supply and flood protection goals.

Particularly significant is how the draft regulations treat interim restoration goals. Even though WRDA 2000 only mentions such goals for restoration performance, the draft regulations contain a new set of goals, called water supply "targets." Most alarmingly, the draft regulations do not prioritize achievement of interim restoration goals over interim water supply "targets" in the event that these two come into conflict with each other. While the Coalition does not object to such targets, it must be made clear that they cannot compromise efforts to achieve restoration performance goals.

General Principle 2: CERP must be governed by a regulatory framework that includes interim restoration goals and planning to achieve such goals

Congress recognized the importance of interim restoration goals and recognized that the programmatic regulations were the appropriate vehicle for "establishing" those goals.[1] We believe the congressional intent is clear on these points and for good reason. Absent interim goals and a close nexus between them and the planning and implementation of individual projects, CERP is far more subject to localized political and bureaucratic pressures to serve water supply and flood protection goals rather than restoration goals. It is unacceptable to the Coalition—and we hope to Congress—to not know what we are getting, at least in broad strokes. The stakes are too high, and the conflicts too compelling.

It is also critical that the interim goals be the cornerstone of the planning and implementation process. Each separate project must show it makes the necessary contribution to achievement of relevant interim goals.

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[1]Senate Report 106–363: "*In developing* the programmatic regulations, the Federal and State partners *should establish* interim goals—expressed in terms of restorations standards—to provide a means by which the restoration success of the plan may be evaluated through the implementation process. The restoration standards should be quantitative and measurable at specific points in the Plan implementation."(emphasis added)

The Draft Regulations

The draft regulations fail to incorporate interim restoration goals. Instead, they call only for a future process to develop interim restoration goals that will then be incorporated into memoranda of agreement, which have far less legal significance than regulations. We believe the legislation is clear that interim goals are to be included in the programmatic regulations themselves. They are a part of the process for ensuring restoration benefits are met. Federal regulations are a well-tested vehicle for regulatory tools of the import of interim goals, and their flexible use in this case per the principles of adaptive management is enhanced by the WRDA 2000 requirement that the programmatic regulations be reviewed and revised every 5 years or more frequently if necessary.

General Principle 3: The April 1999 CERP is a starting point to be continually improved upon in a formalized process

The Everglades Coalition views CERP as a conceptual document with recognized uncertainties and opportunities for improvement. For example, the modeling provided in the April 1999 plan documents showed strong and early performance on the water supply front, but delayed restoration benefits, particularly to the southern Everglades. Moreover, it did not adequately restore connectivity and flow through the system, as was characteristic of the natural Everglades. There was also significant reliance upon uncertain and even destructive engineering solutions. The components that comprise the "Lakebelt" are prime examples—the Corps recently permitted an initial phase of rockmining activities in over 20,000 acres of critical Everglades wetlands, a project that has been partially rationalized on the grounds that some of the mining pits might be used several decades down the line, if they could be made to store water, to provide water flows to Everglades National Park.

The Corps demonstrated significant ability to improve the performance of the Plan even before the original plan was delivered to Congress in July 1999. The Corps conducted additional modeling in May and June 1999 that demonstrated that the performance of CERP could be improved quite readily. In 2001, the Corps developed a much-improved plan for restoring the Indian River Lagoon thus proving again that adaptive management can work. The Coalition believes that improving the model runs and the implementation schedule of individual projects will achieve the goals and purposes of the CERP more quickly and with better ecological results. Adaptive management is the process by which these changes are mandated, and the changes should be incorporated into the regulations as the Corps approves them, with concurrence from the Department of Interior and the State.

These outstanding technical concerns notwithstanding, the Corps made one significant promise about the performance of CERP that was accepted enthusiastically by all. As the committee discussed in its report: "According to the Army Corps, 80 percent of the water generated by the Plan is needed for the natural system in order to attain restoration goals, and 20 percent of the water generated for use in the human environment. . . . Subject to future authorizations by Congress, the committee fully expects that the water necessary for restoration, currently estimated at 80 percent of the water generated by the Plan, will be reserved or allocated for the benefit of the natural system." (Senate 2d Session 106 363, Report to accompany S. 2797 Section 1(b))

The Draft Programmatic Regulations

Despite the history discussed above, and all the progress that has been made over the last several years, the draft regulations generally tie long-term performance of CERP to the April 1999 "yellow book" performance. The draft regulations do set forth processes for improved performance. But not only are there no mandates or timelines to make such improvements, but the regulations prioritize changes based upon monitoring results—which will not emerge for years.

Perhaps the most immediate and significant specific problem is that the initial set of interim goals (and targets for water supply) are explicitly tied to the April 1999 "modeling output." This specifically commits the Corps (unless it changes the programmatic regulations in the future) to develop interim goals that provide inadequate benefits to the central and southern Everglades—even $4 billion into the project. We are very concerned that the regulations ignore the improvements that the Corps itself demonstrated were feasible in May and June 1999, and believe that it is critical that at least this level of improvement be incorporated into the interim an final restoration goals.

As for its promise that CERP will provide 80 percent of the water it produces to the Everglades, the Corps retracts this commitment in the draft programmatic regulations. It explains simply that these estimates were "initial" and somehow no longer applicable, and that water will be allocated on a project-specific basis in

greater or lesser amounts than the 80/20 ratio. In light of the public reliance upon this figure in 2000, neither explanation is sufficient to support rejection of the 80/20 ratio as a generalized planning goal. The Corps has not provided any technical explanation to support any change in the promised performance of CERP. Moreover, while of course individual projects may not provide water supply in exactly such proportions (indeed, some projects are not intended to produce any water storage), there is no reason to reject the 80/20 ratio as a planning guide for aggregates of projects, working in conjunction with operations of the entire C&SF project.

The Coalition believes this committee should require adherence to the 80/20 performance goal as a planning guide for CERP implementation.

General Principle 4: Government must organize itself in a way that maximizes the chances that the goals of the Plan will be achieved.

The Congress recognized that the overarching goal of the CERP, namely Everglades restoration, is unlike that of traditional Corps projects. Even as its mission is reshaped and experience grows, the Corps is not a recognized expert in the ecological and biological scientific underpinnings of this historic enterprise. Moreover, the historic relationships between the Corps and client entities for the secondary purposes of CERP, namely flood protection and water supply, remain strong and, an institutional interest in providing such deliverables frequently predominates.

Accordingly, in WRDA 2000, Congress established a unique relationship between the implementing Federal agency, the Corps, and the Federal steward of and scientific expert in the lands intended to receive the benefits of CERP implementation, the Department of Interior. While the Corps is clearly the lead implementing agency, maintaining sole Federal jurisdiction over the implementation of individual projects, Congress established a special leadership and accountability role for the Department of Interior. It specifically gave the Department of Interior concurring authority over the programmatic regulations, in order to provide Interior with a leadership role in programmatic decisionmaking. In other words, where the traditional relationship between these two agencies regarding water resource projects typically relegates Interior to a "participating" or "commenting" role, WRDA 2000 establishes a new and important leadership role for Interior, equal to that of the Corps (and the State) on key programmatic implementation issues. For its part, the South Florida Water Management District (SFWMD) is to partner with the Corps in the development of project-specific documents and is provided a consultation role in several other places, such as the reports to Congress on the progress of CERP.

The Coalition strongly believes that the Department of Interior must be granted this concurring authority over all aspects of CERP implementation described in Section 601 (h)(3). To the extent that new instruments such as guidance memoranda and pre-CERP baselines are created, introduced or referenced by the regulations as a means of meeting the requirements of 601 (h)(3), these must be subject to the concurrence structure created by WRDA 2000.

The Draft Programmatic Regulations

The draft regulations do not implement the concurrence role created for the Department of Interior by WRDA 2000. Rather, for a handful of specific programmatic actions and processes, such as guidance memoranda, Interior is given a role that is referred to as "concurrency." But the draft regulations state that the Corps (and the SFWMD) need only give "good faith" consideration to Interior's statement of "concurrency" or "non-concurrency." This amounts to simply consultation by a different name, which the agency already has pursuant to the Endangered Species Act, Fish and Wildlife Coordination Act and other laws.

For a number of critical programmatic decisions, Interior is not even provided the afore-mentioned "good faith consideration" authority. These decisions include the adaptive management program, the master implementation schedule, and the system operational manual, any one of which will be instrumental in determining whether the Everglades is restored. In addition, a large number of science-based programmatic decisions are handed off to the Restoration Coordination and Verification Team (RECOVER), rather than being included in the programmatic regulations. RECOVER, however, is controlled by the Corps and the SFWMD, not by the tri-partite arrangement (i.e., Corps, Interior, and the State) Congress required for programmatic decisionmaking. (Section 601 (h)(3)(A)

While diminishing the authority of the Department of Interior, the draft regulations actually inflate the role of the SFWMD over and above what was provided for in WRDA 2000. For example, the SFWMD is given an equal role with the Corps in the development of guidance memoranda, even as the Corps proposes to defer to these documents much of what Congress intended to be contained in the programmatic regulations. In addition, the SFWMD is given authority, with the Corps,

to weigh statements of concurrence or non-concurrence by Interior on programmatic matters referenced in 601(h)(3). This is not consistent with the requirements of WRDA 2000, which clearly sets the State of Florida and the Department of Interior on equal footing on such matters.

Generally, the draft Federal regulations provide that the Corps and SFWMD carry out all the mandated responsibilities and tasks under the regulations together, with each having an apparent veto over the other. When considered together with the SFWMD's sole authority over water allocation and land use, the draft regulations position the SFWMD as the most powerful agency in implementation of CERP. If the draft regulations become final, the SFWMD will essentially be developing and implementing Federal rules intended to protect the sole Federal interest in this project—Everglades restoration.

General Principle 5: Independent scientific review must be given high priority in the CERP implementation process.

Independent scientific review is critical to ensuring an open, science driven decisionmaking process that separates the "auditors" from the "managers" of Everglades restoration. Congress recognized this and accordingly in WRDA 2000 required that

"The Secretary, the Secretary of the Interior, and the Governor, in consultation with the South Florida Ecosystem Restoration Task Force, shall establish an independent scientific review panel convened by a body, such as the National Academy of Sciences, to review the Plan's progress toward achieving the natural system restoration goals of the Plan. 601(j)(1)

To make this independent science review process effective and to sustain its integrity, it is critical that it operate independently of the U.S. Army Corps of Engineers, the State, and the Department of the Interior, have access to all pertinent information generated by the implementation of CERP, and be adequately funded. The programmatic regulations should specifically discuss how separate agencies and the inter-agency RECOVER team shall work with the independent science panel, including a role for dispute resolution on scientific matters and within the process for adaptive management and assessment.

The Draft Programmatic Regulations

The draft regulations do little more than reference the statute on the question of independent scientific review, and we have seen no significant independent effort to implement the statutory provisions on this issue. The draft regulations certainly do not implement the independent science body, or even set a date by which it will be implemented. We are very troubled by this failure to act because the independent panel's first report is due in December 2002. Indeed, the implementing agencies have seemed more concerned about the extent to which independent scientific review can or should be circumscribed than with establishing it.

General Principle 6: The definition of "restoration" must be expressed in terms of hydrologic and ecological targets

The CERP, like many restoration projects before it, was created as a response to the degraded and unsustainable condition of the greater Everglades ecosystem caused by human alteration of the environment. Restoration, therefore, must always be defined as achieving sustainable natural areas that possess the essential ecological characteristics of the pre-drainage Everglades over the maximum spatial extent possible.

The underlying principle within the CERP is that hydrological restoration of natural areas will foster biological restoration in those areas. Therefore, the first requirement for restoration is to return proper water quality, quantity, timing, and distribution throughout the system. To the degree hydrological restoration is successful, biological restoration should follow—with various communities responding at different points in time.

The Draft Regulations

The draft regulations inappropriately define restoration as the level of recovery and protection to the South Florida ecosystem as described in CERP, with such modifications as Congress may provide for in the future. However, the "yellow book" provides only a framework for achieving restoration and does not clearly describe the essential ecological characteristics of a sustainable, restored Everglades. Instead, the Plan consists of a series of projects whose resulting hydrological improvements are anticipated to achieve the desired biological benefits. It is important to keep the definition of restoration, the main goal of the CERP, based on ecological necessity and not anticipated performance. This structure is necessary for the adaptive management process to be successful in making meaningful improvements to the plan.

PART 2

ENSURING THAT CERP IS IMPLEMENTED EXPEDITIOUSLY TO FORESTALL CONTINUED DEGRADATION AND ACHIEVE EXPECTED RESTORATION BENEFITS

Introduction

If we are to save the Everglades, we must act while there is still time to do so. The CERP will be implemented over the course of 30 years, but there are activities and projects, which can and should be implemented immediately, both to protect the integrity of the CERP and to achieve desperately needed early restoration benefits. In its deliberations in 2000, the committee expressed the desire to see greater restoration benefits earlier in the implementation process. (Senate 2d Session 106 363, Report to accompany S. 2797 Section 1(b)) Not only are these early benefits important to the Everglades itself, but achieving measurable benefits in the ecosystem will serve to raise the level of public confidence in the CERP, and toward proving that it is indeed possible to restore this ecosystem.

2002 CERP Project Authorizations

Everglades restoration will repair much of the damage from drainage and development, bringing back the wading birds that once filled the south Florida landscape and helping hundreds of thousands of acres of wetlands and estuarine habitat recover. Restoration projects will benefit National and Florida Parks totaling nearly 3.5 million acres and contribute to South Florida's ecosystem-based economy.

Three crucial projects must be authorized at the first opportunity and implemented expeditiously due to immediate threats from encroaching urban development, escalating costs of delay, impending estuarine collapse and the continued degradation of the entire Everglades system. Thus, these projects, Indian River Lagoon, Southern Golden Gate Estates, and Water Preserve Areas (including the Bird Drive Recharge Area and the Southern Compartment of the Hillsboro Impoundment), are very vulnerable to implementation delays. At the same time, they have the most potential to immediately enlarge the spatial extent of the remaining Everglades. These projects must be completed by aggressive land acquisition and accelerated engineering and construction plans. These projects require prompt congressional approval for Everglades restoration to move forward on schedule.

The vital areas within these three projects contain more than half of the total land area in the restoration plan, and will provide impressive ecological benefits well before 2010, including:

- 270 square miles (?172,000 acres) of restored and protected wetlands and uplands,
- restored habitat for more than 2,200 species, at least 35 of which are threatened or endangered (including the manatee, snail kite, wood stork, red-cockaded woodpecker, scrub jay, crested caracara, whooping crane, bald eagle, indigo snake, eastern loggerhead turtle, Atlantic green turtle, leatherback turtle, Atlantic hawksbill, and Atlantic Ridley turtle),
- potential 10fold increase in area wading bird populations,
- tens of millions of dollars in associated economic and quality of life benefits annually, and
- improved water quality for the Everglades, Florida Bay, 10,000 Islands, St. Lucie Estuary, and Lake Okeechobee.

Three Projects:

1. The Indian River Lagoon Project will reverse the deterioration of and restore a nationally significant and unique system and one of the most diverse estuaries in North America, as well as help to restore Lake Okeechobee. The project restores more than 145 square miles (92,000 acres) of habitat, utilizing these areas for water storage, water quality treatment, and green space. Restoring, cleaning up and enhancing the area's wetlands and waterways simultaneously increases the extent of natural storage and limits the dumping of harmful stormwater into Lake Okeechobee, the Indian River Lagoon and the St. Lucie Estuary. These water bodies will benefit enormously from land acquisitions, improvements for stormwater retention and water storage, and by changing the current project's drainage patterns.

Specifically, restoring wetlands and retaining flows now harming the Indian River Lagoon will:

- re-create more than 90,000 acres (145 square miles and 1/5 of the watershed) of healthy upland/wetland habitat,
- stop more than 65 tons of phosphorus from entering the waterways annually,
- establish corridors connecting habitats to the north and south of the study area,

- store, clean, and re-route water, which today enters the middle of the estuary at the wrong time and in the wrong amounts (killing seagrass and oysters, creating fish lesions), to the ends of the estuary where water can flow into the estuary in a healthy manner,
- remove 5.5 million cubic yards of muck, covering 2,650 acres of estuary bottom to restore sand-bottomed communities conducive to seagrass growth and healthy oyster populations,
- help provide an estimated $731 million annual regional economic contribution from tourism, fishing, and real estate,
- help prevent fish kills like the 1 million dead fish in C–24 in June 2002,
- redirect excess water to irrigation for farms,
- keep urban development away from wetland areas essential to the ecosystem, and
- restore fresh water aquifers to near pre-drainage levels.

2. The Southern Golden Gate Estates Hydrologic Restoration Project will restore 113 square miles (72,320 acres) of Southwest Florida. Harmful and uncontrolled urban growth is moving east from Naples toward the Everglades. At the edge of the natural areas in the Big Cypress and Fakahatchee Strand sits the "Southern Golden Gate Estates" subdivision platted by long-defunct land development schemes. The roadways and canals that make up part of this area constitute an ideal location to re-establish natural sheet flow toward the estuaries. Efforts to restore this area's unique ecology of cypress, wet prairie, pine, hardwood hammock and swamp have been underway for decades. The project is connected to the Florida Panther National Wildlife Refuge, the Belle Meade State Conservation and Recreation Lands Project Area, the Fakahatchee Strand State Preserve, and will restore flows to the Ten Thousand Island Estuaries and Aquatic Preserve through sheetflow and flowways rerouting approximately 185,000 acre-feet of water currently discharged as point source to the Ten Thousand Islands (part of Everglades National Park). The restoration benefits of this project are too long overdue and critically needed.

Specifically, creation of a restored flow-way will have the following benefits:

- provide improved food, spawning areas, and nurseries for the 80 percent of coastal species that depend on wetlands,
- provide essential breeding, nesting, feeding, escape and shelter habitat for birds, reptiles, mammals, and amphibians,
- filter runoff, naturally improving the quality of water reaching Florida Bay,
- increase the quality and opportunity for ecotourism in southwest Florida,
- reduce the invasion of exotic species into the previously disturbed areas,
- reduce damaging large freshwater shocks to the Ten Thousand Islands estuary from canal discharges,
- prevent future development from encroaching in this part of the Everglades,
- replace flows from a polluting canal, which upset the timing of the freshwater flows and the balance of saltwater and freshwater in the Ten Thousand Islands and the northwest reaches of Everglades National Park with a more natural sheet flow of water that is compatible with the estuary, and
- retain water in shallow aquifers now being lost through over-drainage by poorly controlled canals to the Gulf of Mexico.

3. The Water Preserve Areas (WPAs) Project, (including Bird Drive Recharge Area and the Southern Compartment of the Hillsboro Impoundment), an integral part of the Everglades restoration plan, is located within Palm Beach, Broward, and Miami-Dade Counties east of the Everglades and west of existing development, creating an 18,139acre buffer area. Eight WPA project components are currently authorized under WRDA 2000. Two original WPA project components, the Bird Drive Recharge Area and the Southern Compartment of the Hillsboro Impoundment, are immediately threatened by development pressures and must be authorized in 2002. The WPAs are designed to protect the spatial extent of wetlands, improve habitat in the Everglades Protection Area, and enhance the Loxahatchee National Wildlife Refuge, as well as store water, and safeguard wellfields. WPAs provide a critical source of water storage for restoration by reducing undesirable losses from the natural system through seepage and providing a means of capturing stormwater runoff that was previously wasted to tide. Further, development continues to encroach on the remaining natural areas adjacent to the Everglades. These remaining wetlands serve a critical role in the restoration of the Everglades by maintaining wetland spatial extent. The WPAs also provide a mechanism for increased aquifer recharge and surface water storage capacity to enhance regional water supplies for the lower east coast urban areas, thereby reducing demands on an already degraded natural system.

While land purchases to complete this 18,139-acre restoration area have already begun, both land acquisition and the design of projects for water storage, water

quality improvement, and wetlands restoration features must be approved expeditiously or these projects will be irreparably compromised. The WPAs are the restoration features most threatened with immediate loss to development pressures because of their location between the urban developed areas of south Florida and the remnant Everglades ecosystem. For example the Strazzulla wetlands, adjacent to the Loxahatchee National Wildlife Refuge, is over 3,300 acres in size and one of the lower east coasts' last remaining intact Cypress stands. It will be protected and hydrologically enhanced.

When completed, the WPA system has the potential to provide the following benefits:

- increase water storage by ?33,000 acre-feet and reduce discharges to the ocean by directing water now wasted to tide into reservoirs and impoundments for restoration and potentially for urban uses
- increase water supplies by providing more places to store water.
- clean and re-release water back into the Everglades, when the wetlands need the water, through water storage reservoirs and treatment marshes,
- enhance urban water supply, thus reducing the reliance of utilities on water from the Everglades and Lake Okeechobee,
- allow more natural water levels in the Everglades by controlling seepage of 64,000 acre-feet of water from the Water Conservation Areas into developed areas
- create a barrier to the impacts of development between urban areas and the Everglades,
- restore sheetflow in the remnant Everglades by providing alternate conveyance canals necessary for future projects,
- help provide for more natural timing, distribution, and volume of water to Florida Bay, and
- protect the spatial extent of wetlands.

Appropriate Implementation of Previously Authorized Projects and On-going Initiatives

Restoration in the southern end of the system—where all the Federal Everglades are—depends on the implementation of the Modified Water Deliveries project, which was authorized in 1989 and 1994. This project will restore flows to Everglades National Park and, coupled with the C–111 project, authorized during the same time period, will help restore water flows through the East Everglades to Florida Bay. The project will reverse the damage to Everglades National Park and Florida Bay from previous and current water management practices.

The Modified Water Deliveries project is comprised of a number of components, including modifications to the Tamiami Trail and a mitigation feature for the 8.5 Square Mile Area. Because of the lack of leadership to implement an environmentally acceptable alternative for the 8.5 Square Mile Area component, the entire project has come to a grinding halt. A compromise solution, Alternative 6D, had previously been developed in partnership between the South Florida Water Management District and the Army Corps of Engineers. This has been the only alternative developed to date that has provided benefits to Everglades National Park, wetlands in the area and to the landowners of the 8.5 SMA. By acquiring only a portion of the 8.5 SMA, all of these benefits can be achieved. The residents of the 8.5 SMA will be able to retain their sense of community and the rural character of the area they so desire.

In WRDA 2000, southern end CERP projects, such as decompartmentalization of the central Everglades, were tied to the completion of the Modified Water Deliveries project. Section 601(b)(D)(iv). "Decomp", as it is known, is one of the most critical southern end CERP projects, designed to restore original Everglades sheetflow by reconnecting the River of Grass. This project cannot be implemented until Modified Water Deliveries is completed.

As we have already mentioned, water management in the East Everglades is likely the most disturbing aspect of current restoration efforts in the southern end of the system. Using large canals and pumps adjacent to Everglades National Park in an effort to satisfy escalating stormwater control demands from adjacent agriculture and urban sprawl, while minimizing the ancillary effects of such benefits on the water quality and water flows of the eastern part of the Park and northeast Florida Bay is no doubt a daunting task. The history of the East Everglades, culminating most recently in the sidetracking of the C–111 Project, is a long tale of "emergency" or "temporary" operations to help out a new need, be it tropical fruit tree planting in South Dade or subdivision development in west Dade, that—despite harmful impacts on the Everglades—are never changed.

The inability to move forward and build the projects that would provide greater opportunities to balance competing interests, such as the Modified Water Deliveries project, discussed above, makes it nearly impossible to even try to resolve such con-

flicts. So does an unwillingness to try to resolve these problems without broadening the base of solutions. Once these authorized projects are constructed, flexibility will be built into the system that will provide areas to store water, thus reducing harmful water quality impacts to Everglades National Park and Florida Bay. Canal elevations can—and must—be restored to levels that will not over drain the east Everglades and allow water to be sent to Florida Bay with appropriate timing, distribution and quality. Once CERP projects and previously authorized projects are constructed, the needs of the Everglades, agricultural and urban flood control can be better met, IF combined with a willingness of these communities to plan development differently and not simply expect Federal projects—particularly Federal Everglades restoration projects—to take care of all needs. In addition, year-to-year operations that continuously change are not supported by any constituency with an interest in southern Miami-Dade County, including local government, agriculture or environmental stakeholders. Only through the completion of the Modified Water Deliveries project and the C–111 projects, as originally designed and authorized, can we move to this permanent solution that will provide certainty to all interests in South Dade.

Land Acquisition

The integrity of the Comprehensive Everglades Restoration Plan (CERP) rests in very large part on the ability to acquire the land necessary to implement project components. CERP cannot be successfully implemented without an expedited and fully funded land acquisition strategy. The State of Florida has committed to providing roughly $1 billion over a decade for Everglades restoration lands. But this is not enough to keep up with extreme development pressure in South Florida. It is critical that all land acquisition efforts be accelerated. The South Florida Water Management District needs about $1 billion over the next 5 years for Everglades lands. Therefore, the Federal Government must step forward and assist the State of Florida in fully funding accelerated land acquisition for Everglades Restoration. While Congress has provided $15 million to the State of Florida for land acquisition in Fiscal Year 2002, this fell over $60 million short of what the State was prepared to match, resulting in lost opportunities to acquire critical real estate within the CERP footprint. Federal land acquisition assistance to the State of Florida should be increased to at least an additional $25 million each if we are to acquire the most critical lands expeditiously. The State of Florida relies on this source of Federal funds for opportunistic acquisitions of land that suddenly become available. Without the flexibility that Federal assistance provides the State to react quickly to acquire property, lands that are critical to Everglades restoration will fall into the hands of developers lost to development which will preclude restoration of those lands and, due to increased land values, dramatically increase the overall cost of restoration for both State and Federal taxpayers.

Without the flexibility that Federal assistance provides for the State to react quickly to acquire property, lands that are critical to Everglades restoration will fall into the hands of developers, which will in turn dramatically increase the overall cost of restoration for both State and Federal taxpayers.

For example, the Water Preserve Areas (WPAs) are some of the most significant projects of the CERP. The WPA project creates a buffer between the developed and natural areas of Palm Beach, Broward and Miami-Dade Counties. Land in the western areas of these counties is exponentially increasing in value and all opportunities to acquire available, non-developed land must be utilized. There is a race against development to purchase these lands and not lose their irreplaceable benefits. While significant progress has been made, the pressures of price escalation and development increase every day. This is illustrated by the following examples:

- WPAs Shrinking Due to Rising Land Costs—As a result of the escalation of land costs and funding constraints, Bird Drive Recharge Area, Acme Basin B, and the southern compartment of Hillsboro Impoundment project components, totaling more than 6,000 acres, have already been removed from the WPA Feasibility Study and the current implementation schedule for the WPA project. These examples are areas that illustrate a trend of price escalation and competition for lands necessary for Everglades restoration.
- Allapattah Ranch in Martin County—Just last week the final land purchase for this 22,500 ranch was completed, providing a significant amount of needed water storage and wetland enhancement in one parcel. An opportunity existed to expedite this purchase, and because funding was available, it was not lost to development.

On average, land values in South Florida double every 8 years. Development pressures in Palm Beach, Broward, Miami-Dade, and Martin Counties stand to jeopardize CERP implementation. Project footprints are already being compromised—the Water Preserve Areas are shrinking. Water storage and water quality treatment

options are being foreclosed. The State of Florida needs Federal assistance to fully fund accelerated land acquisition for Everglades restoration. By providing additional funding for lands now, the Federal Government could actually reduce the cost of restoration overall and increase benefits to the Everglades at the same time.

Land Acquisition Needs

CERP	Total Acres Needed	Total Expended to DateCost Estimate	Acres Already Acquired	Acres Remaining to be Acquired	Remaining Cost Estimate
By 2007	180,567	$1,239,163,000	75,669.53	110,000*	$ 920,000,000*
By 2010	N/A	N/A	N/A	149,000	$1,604,000,000**
Total	309,011272,318	$547,660,216	137,917 (45 percent).	215,102	$1,685,984,234
		2,221,914,000	95,330.53	176,987.47	787,093,000

Source: CERP and SFWMD. 8/23/02
* South Florida Water Management District, CERP Progress Report to the Governing Board (April 10, 2002).
** South Florida Water Management District, CERP Real Estate Expenditures 2001–2010—Detail (August 2001).

In addition, additional lands in the Everglades Agricultural Area must be added to the CERP land acquisition needs. As sugar cane and vegetable fields come out of production because of soil subsidence or other reasons, funds must be made available to purchase those lands to be returned to their original function as natural water storage and to prevent urban development of the area, which is in the heart of the Everglades.

CONCLUSION

Everglades restoration presents us with an opportunity to undo the damage that we ourselves wrought on one of the world's most fragile and important ecosystems, and to do so at an unprecedented scale. To succeed in this historic effort would stand as one of this nation's great achievements. Like all complex endeavors, both the devil and the promise lie in the details. The key initial decisions concerning the implementation of CERP will establish the balance between urban and ecosystem considerations. The care with which these decisions are made and the comprehensiveness of the considerations undertaken in them will ultimately determine the success or failure of the venture.

Like any other difficult but important national mission, Everglades restoration must be approached boldly and with resolve. The construction of highways, dams, and harbors is rarely delayed by political uncertainty, bureaucratic hesitancy, and continuous reevaluation of goals and objectives. The Everglades cannot afford the kind of protracted implementation delays that we have seen on previously authorized restoration projects such as the Modified Water Deliveries and C–111 projects. Government must move forward with confidence and competence, addressing stakeholder concerns head-on in an open, honest, and goal-oriented way, allowing the authorized project objectives to guide its actions. With leadership and resolve, the implementation of CERP could be a model for environmental restoration across the Nation, where the needs of people and the environment are approached together. Some worry that the project is too ambitious and its goals too amorphous to be successful. What better way to make that view a self-fulfilling prophecy than to fail to set clear goals and to fail to approach CERP as the ambitious national mission it is?

Restoration of the Everglades deserves the kind of American "Can Do!" spirit that has defined this nation since its beginnings. As America invests in the Everglades, it invests in its future, demonstrating to the world that we can act to save the natural systems that sustain us, allowing human beings and ecosystems to thrive side by side for generations to come.

STATEMENT OF MARY ANN GOSA, FLORIDA FARM BUREAU FEDERATION

Mr. Chairman, members of the committee, I am Mary Ann Gosa, Assistant Director of Governmental and Community Affairs for the Florida Farm Bureau Federation. The 146,000 member families of the Federation deeply appreciate the opportunity to present their perspectives on the progress being made in implementing the Comprehensive Everglades Restoration Project, commonly known as CERP. As we are a general farm membership organization, our membership reflects the full spectrum of Florida Agriculture, and many of our South Florida members are impacted directly by the CERP. We applaud the interest of the committee in ensuring that

this path-breaking restoration effort stays on the course laid out by Title VI of the Water Resources Development Act (WRDA) of 2000.

Background

Title VI of WRDA 2000 was largely the product of the careful work of the Environment and Public Works Committee. During its deliberations, the committee considered the counsel provided by all of the groups interested in the CERP as well as the expert opinion and recommendations of the concerned Federal and State of Florida agencies. The result is a well-crafted charter and framework for future project planning and implementation of a plan that would ensure the environmental and economic health of South Florida for the next half century. Success of the CERP is essential to the Everglades and to South Florida's agriculture and its millions of residents. CERP is also a model for all those interested in successful ecological restoration worldwide.

A fundamental requirement in the CERP authorization is that the planning of future project components is to address ecological and economic water uses in the region in a balanced way. For the plan to continue to enjoy the broad political support that was essential to its authorization, this principle must be honored as implementation proceeds.

Present situation

Having had the opportunity to work with the Corps of Engineers and other agencies for almost 2 years within the legislative framework of WRDA 2000, we wish to affirm its soundness and implementability. We continue to support Title VI as strongly now as we did in 2000.

Our support of the authorizing legislation should not be viewed as a lack of concern about the implementation of CERP. Implementation of the conceptual plan is much more complex than what most of its advocates and developers anticipated. In the last 2 years, many lessons have been learned, and process of developing the programmatic regulations has been an important learning experience for all. The Corps of Engineers and its partner, the South Florida Management District, are clearly committed to implementing the CERP within the congressionally directed guidance provided in Title VI of WRDA 2000.

One lesson has become especially clear to us. It is absolutely essential that the Corps of Engineers and the South Florida Water Management District follow the Federal Government's procedures and meet all of the Federal requirements for project feasibility studies. The scientific and technological uncertainties inherent in the CERP require that CERP projects meet the same standards as required for other Civil Works projects nation-wide. Congress made all major CERP project implementation subject to the completion of feasibility level studies and gave specific direction regarding project justification and the need for cost-effectiveness in Title VI. Such guidance was prescient in anticipating the problems that would be encountered by the Corps in going from the broad conceptual plan of its 1999 Restudy of the Central and Southern Florida Project to actual project design and implementation.

South Florida farmers, as well as all Floridians, have much at stake. For farmers, it is their land, their water and their financial resources. Without the additional water provided by CERP projects, ecosystems will continue to be unstable and degraded, water for domestic purposes will become increasingly inadequate, and agriculture will be unable to grow.

Late last year the Corps released two draft reports, the Indian River Lagoon-South Feasibility Study and the Central Southern Florida Project Water Preserve Areas Feasibility Study. These two studies, which had been underway since 1996, are integral components of implementing major elements of the CERP. The Water Preserve Areas study is at the center of CERP and contains several CERP components. Review of these studies during the public comment period that is required by the National Environmental Policy Act provided valuable insights in the CERP's implementation challenges. These reports demonstrated the difficulty of developing cost-effective, immediately productive project components that have to fit into the larger CERP framework. We know that the Corps is working to remedy the problems with these major projects, which are important to the overall success of the plan as well as to the users of the built environment. These planning reports have been important learning experiences that, no doubt, have been invaluable in helping the Corps to develop important sections of the Programmatic Regulations required by Title VI.

The Programmatic Regulations

One major milestone in the implementation of CERP will be the publication of the Programmatic Regulations by the Secretary of the Army. The Army and the Corps

has worked diligently with the Federal Agencies, the State of Florida, the Tribes and the various stakeholder groups to develop these regulations. We in the agriculture community commend the Corps on its work to date and we look forward to having the final regulations in place by next December's deadline. We, of course, have specific concerns with the proposed regulations, which we will address in our comments to the Corps as provided for in the public comment process. Today I will touch upon six broad areas that are appropriate for this hearing.

Scope and detail

One key issue that was addressed during the passage of WRDA was the question of the content of these "new" programmatic regulations. Congress, wisely in our view, clearly and explicitly limited them to process matters. The Corps has properly followed Congress's intent in this regard and has outlined processes for each of the areas called for by the law. Detailing these processes has been more complex than anticipated, and many specific steps have yet to be developed and articulated. Without the details to be addressed in future guidance memorandums, major uncertainties in the implementation process will remain. As a group impacted by CERP, we are vitally interested in those details and are pleased that the six guidance memorandums, which will contain further detail, will be subject to the full public and executive branch review process before they become final.

The most important process, in our view, is the one that will guide plan formulation for CERP components. Success of the CERP depends upon a systematic planning process that will ensure that each component in CERP is cost-effective and produces benefits as it is completed. This requirement will ensure that interim performance results are achieved and that each investment will be a productive use of public funds regardless of how the plan evolves during its several decade-long implementation cycle. The Corps proposed process, although lacking in the detail that is necessary to give us complete confidence, contains all the necessary elements to achieve this result. The process outlined in the proposed regulations advances well beyond the Corps initial concepts articulated last December and is a reflection of the steep slope of the learning curve associated with such a large and complex project as CERP.

Interim goals

The matter of how interim goals should be addressed has been a contentious one. There is a great deal of interest of establishing restoration performance measures for the plan over time. We share that interest and appreciate the fact the proposed processes establishing interim goals provide for performance measures for both the natural system and the built environment. We would note however that the process laid out in the proposed regulation is extremely thin. This suggests that developing a reasonable process for interim goals requires much additional thought. We believe that interim goals should flow from the plan formulation process. Interim goals should represent the cumulative impact of successive projects as anticipated in individual project implementation reports (PIRs). We are concerned that any process that attempts to establish interim goals in advance of feasibility studies will be arbitrary and may drive the formulation of project components that are not cost-effective. Goals and timetables that are not based on an integrated consideration of engineering and economic information as well as hydrological and ecological data should be avoided. Therefore, a 6-month timeframe to define interim goals in terms of water allocations appears to be premature.

Targets for other water-related needs of the region

The proposed programmatic regulations appropriately outline a process for establishing targets for evaluating progress toward achieving other water-related needs of the region throughout the implementation process. Such targets are important to ensure that the balanced purposes of the plan are met and to assure full accountability during implementation. They provide all stakeholders with the assurance that the overarching objective of the Plan, which is "the restoration, preservation, and protection of the South Florida ecosystem while providing for other water-related needs of the region, including water supply and flood protection" will be achieved. We commend the Corps for responding to our concerns in this area.

The role of Restoration Coordination and Verification (RECOVER)

RECOVER is an interdisciplinary, interagency scientific and technical team that serves several functions in plan implementation, evaluation and adaptation of the CERP. These include ensuring that a system-wide perspective is applied and the best available scientific and technical information will be used throughout the duration of the plan. The proposed regulations attempt to assure the public that "Documents prepared by RECOVER are not self-executing and must be reviewed, dis-

cussed, revised and/or approved by responsible management officials . . . as appropriate prior to implementation of management responses based on the results and findings therein." However, we remain concerned that the RECOVER process will lead to decisions that do not properly integrate cost effectiveness information and will lead to wasteful resource allocation decisions.

Unrealistic deadlines

The proposed regulations lay out specific deadlines for several important follow-on actions. These include the deadlines for interim goals, guidance memorandums and the baseline water allocation. Given the time required to develop the level of detail in the proposed programmatic regulations, we seriously question whether these deadlines are realistic. We are very much concerned that these deadlines will lead to ill-conceived, arbitrary outcomes or unfair complaints about agency commitment to the project as a result of missed deadlines. Fundamentally, we are concerned that implementation is carried out in a credible matter that will retain the confidence of the public and the Congress. Already, There have been unfair criticisms of the agencies for taking too long and for "delaying" benefits. We hope the agencies will not continue to invite such criticisms or drive themselves to bad decisions by imposing unworkable timelines.

Role of the Department of the Interior

The Proposed Regulations give the Department of the Interior a concurrence role in the development of the guidance memorandums and in the establishment of the pre-CERP baseline water allocation. As the committee may be aware, some advocacy groups have argued for an even greater role for the Department in CERP implementation. Florida agriculture supported the CERP as a project to be implemented under the Civil Works program of the Department of the Army. Authority and responsibility for all aspects of its implementation must rest with the Secretary of the Army and its non-Federal partner, the South Florida Water Management District. We believe that any diffusion of that responsibility will weaken accountability and create the potential for indecision and delay.

Summary

Title VI of WRDA 2000 is well-constructed legislation that provides the framework for responsible implementation of the Comprehensive Everglades Restoration Plan. We believe the Corps and the State of Florida have shown impressive and effective leadership in project implementation. No legislative adjustments are necessary or appropriate at this time. The agencies should continue to proceed with the WRDA 2000 charter, which is guiding the project so effectively. We pledge our continued support for the CERP and affirm our willingness to work with all stakeholders to ensure that all of South Florida's water demands are addressed in a timely and cost-effective manner.

Mr. Chairman I will be happy to answer any questions you or other members of the committee may have.

RESPONSES OF MARYANN GOSA TO ADDITIONAL QUESTIONS FROM SENATOR GRAHAM

Question 1. Can you describe what will happen to the Everglades if no action is taken on the CERP?

Response. Although the Federal Government and the State of Florida have several efforts underway outside of CERP that are expected to produce significant improvements for the Everglades, CERP is necessary to provide restoration of the broader ecosystem.

The following is a brief description of some of the Everglades restoration plans that are currently underway:

- The 1994 Everglades Forever Act (EFA), is primarily a water quality improvement plan that puts into place a comprehensive approach to improving the quality of water entering the Everglades Protection Area. The Act instituted the Everglades Construction Project that creates over 42,000 acres of article marshes (Stormwater Treatment Areas) designed to cleanse stormwater entering the Everglades. Four of the seven Stormwater Treatment Areas are already in operation and the final two, totaling almost 20,000 acres, will begin operation next year.

The EFA also requires a Best Management Program for farms in the Everglades Agricultural Area that has led to tremendous improvement in the quality of stormwater leaving the farms. Although the law required a 25 percent reduction in phosphorus in agricultural runoff, the growers have been able to attain a reduction in excess of 50 percent. This has produced a significant reduction in phosphorus flow

to the Everglades before any of the stormwater treatment areas were in operation. By improving the quality of the water flowing into the treatment areas the performance of those projects has been much better than expected, leading to major water quality improvement for the Everglades.

At the southern end of the system the Modified Water Delivery and the C–111 Projects will correct serious problems facing Everglades National Park. These projects have already been authorized and funded by Congress, and are expected to correct the most glaring hydrologic problems facing the Park, namely the impediments to flow in Shark River Slough and the excessive seepage losses from the eastern boundary of the Park.

It is important to note that the consensus of government scientists involved in CERP is that these projects, despite their magnitude and important benefits, will not achieve the degree of restoration necessary for large-scale ecological stability in South Florida. CERP will build on these efforts and continue to improve the hydrology (timing, distribution, quantity and flow of water) of large areas of the Everglades, including a significant increase in the amount of water for Everglades National Park and further improvements to the re-establishment of sheetflow throughout the system. It will also address problems with Lake Okeechobee and several coastal estuaries that do not presently have sufficient restoration activities in place.

Question 2. What actions does Congress need to take in the near and distant future to move the CERP forward?

Response. Congress should provide the full Federal share of the funds needed for the pilot projects, which will remove many of the project's uncertainties and allow project components that are tied to the uncertain technologies to move through the design process. Congress should also fund the Federal share of CERP implementation at the rate the Corps can productively expend the funds being jointly provided by the State of Florida and the Federal Government. Congress should authorize projects only as they emerge from the executive branch's report development and review process. Premature authorizations deny Congress the benefits of full Administration review and may make it difficult for such projects to effectively compete for Presidential budgetary support. We believe this project is too important not to be planned, authorized, funded and implemented in an orderly way.

Question 3. Have you had ample opportunity to communicate with the Corps on your views regarding programmatic regulations, project execution, and other CERP issues?

Response. The Corps implementation process has been very open. We have taken full advantage of the opportunities the Corps has provided us to share both our concerns and our technical knowledge and experience. We believe the Corps and the South Florida Water Management District have benefited from this open process and that a better project will result.

Question 4. Can you describe your perspective on the inclusion of "other-water related needs" as a project purpose for the CERP? How do you envision the balance between this and ecosystem restoration working throughout CERP execution?

Response. Congress approved CERP as a framework for modifying the Central and Southern Florida Project to "restore, preserve, and protect the South Florida ecosystem while providing for other water-related needs of the region including water supply and flood protection." From Florida agriculture's perspective, this means that the project is to provide for all water-related needs in the region (water supply and flood protection) and to do so in a timely and cost-effective manner. The concept of "balance" is made operational in the Project Implementation Report development process. Each report must identify the economic and ecological benefits that will result from the project and provide a rationale for the particular mix of benefits to be provided. This is why we have placed such emphasis on the plan formulation and evaluation process. Congress will then affirm or modify that balance as it acts on the executive branch's recommendations. Ultimately, the balance of water allocations between ecological and other uses that is proposed though the analytical process must be affirmed though the political process.

Question 5. Here is Ms. Klee's statement with regard to the role of the Department of Interior. Can you tell me if you feel the role of Interior as articulated by Ms. Klee here is adequate?

Response. With respect to the role of Interior, we also work very closely with Corps to ensure that we would have the ability to ensure accountability for the natural resources in south Florida. We are a key player on RECOVER. We are a co-chair of in fact four of the sub-teams and we are on the leadership team as well.

We have developed a very good collaborative relationship with the State, the district and the Corps and feel that we will be able to play a very meaningful role there. Again, as Mr. Brownlee mentioned, we also have a concurrence role on the

six guidance documents that will be developed to establish the more detailed framework for implementation of the CERP.

So we think again on that issue that we will continue to play a very important role in implementing CERP down the road.

We value the expertise within the Department of the Interior and the contributions the Department has made in implementing CERP. However, responsibility and accountability must ultimately rest with the Department of the Army and the non-Federal project sponsor, the South Florida Water Management District. We have a serious concern with the Department of the Interior's role as outlined in the programmatic regulations, which goes well beyond the role indicated by Ms. Klee. The proposed regulations expand the concurrence role to the establishment of the pre-CERP baseline and propose a new agreement between the Secretary of the Army, the Secretary of the Interior and the Governor establishing interim performance goals. These two provisions appear to circumvent the intent of WRDA and should not be included in the final regulations. WRDA states specifically (paragraph 601 (h)(3)(C)(ii) and cited in section 385.4 of the draft regulations) that the programmatic regulations shall expressly prohibit the requirement for concurrence by the Secretary of Interior or the Governor on documents relating to the development, implementation, and management of individual features of the Plan. The definition of the pre-CERP baseline and Interim Goals are so integral to the "development, implementation, and management of individual features of the plan" that requiring concurrence by DOI and the Governor would be inconsistent with the Act.

Question 6. According to the Administration's Climate Action Report 2002,". . . the natural ecosystems of the Arctic, Great Lakes, Great Basin, and Southeast, and the prairie potholes of the Great Plains appear highly vulnerable to the projected changes in climate." In addition, that report says due to a projected rate of sea level rise from 4–35 inches over the next century, with mid-range values more likely, estuaries, wetlands and shorelines along the Atlantic and Gulf coasts are especially vulnerable. What consideration has been given in the development of the long-term plan for restoration of the Everglades to the effects of global warming and sea-level rise?

Response. CERP is a plan to restore the hydrology of a major portion of the historic Everglades. Climate change and rising sea levels are additional elements of uncertainty in a vision of a restored ecosystem and are briefly discussed in the 1999 Integrated Feasibility Report. With the restored water quantity, quality, timing and distribution, a more stable ecosystem is expected. Climate change and rising sea levels may change the character of that system over time, however those changes will occur in the context of a hydrologic regime that is closer to the predevelopment one that is presently the case.

RESPONSES OF MARYANN GOSA TO AN ADDITIONAL QUESTION FROM SENATOR INHOFE

Question 1. Numerous questions concerning the 8.5 Square Mile Area, which is a feature of the Project for Modified Water Deliveries to Everglades National Park.

Response. Many of these questions require specific information that is not available to the Farm Bureau. Other questions, such as how one plan or another would affect Everglades restoration, raise subjects that we have historically viewed as being outside the normal purview of our organization. However, the Modified Water Delivery Project (MWDP), of which the 8.5 Square Mile Area (8.5 SMA) is one component, is of great interest to the large and economically important agricultural economy of southern Miami-Dade County for one very important reason: it was designed to be the cornerstone of the solution to the persistent flooding problems that have plagued the area.

One of the serious problems that the MWDP is designed to correct is the uncontrolled seepage of water out of Everglades National Park and into the canal system that serves the agricultural area in south Miami-Dade. This problem was created in the 1970's with the construction of the South Dade Conveyance System by the Corps of Engineers in an attempt to fix what they, and Congress, then thought was a problem for the Park. Unfortunately the fix turned out to be worse than the problem, not only for private property outside the Park, but especially for the Park itself.

In the 1980's, the farmers participated, along with all other agency and public interest groups, in several public, government sponsored efforts to identify and correct the problems. The result was the ENP Expansion Act of 1989, which directed the Corps to construct the MWDP. Farmers have been waiting for the construction of the project, patiently at first, but now with growing frustration. The Department of Interior has steadfastly refused to release the funding for the project that Congress approved, and DOI endorsed, in 1989. Last year a new design for the 8.5 SMA was

chosen, Alternative 6D, which the Federal court has determined that the Corps does not have the legal authority to construct.

On a personal basis most of our members sympathize with the property owners in the 8.5 SMA who have suffered serious hardship for the last 20 years, only to have what they thought would be their salvation, the MWDP, be at first delayed and then redesigned in a way that shrinks and disrupts their community. On a practical basis the growers in south Dade are desperate for improved flood protection and fear that they are looking at another decade of gridlock. We are also concerned that Alternative 6D may not provide the protection from downstream flooding that was promised by the MDWP. The water collected from the 8.5 SMA, which was pumped back into the Park under the original plan will now be pumped south to an impoundment adjacent to our most important flood protection canal. We are concerned that the seepage problem has only been relocated, not resolved.

The Corps has yet to publish the design and operational details showing how the Alternative 6D plan will affect the downstream areas that will now receive the water. If they can produce a technically sound, operationally reliable plan that will not be subject to constant change, as has been our recent history, we are prepared to move forward. We are very reluctant to endorse the construction of Alternative 6D until we have assurances that this can be done.