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DEAUTHORIZATION OF THE CROSS FLORIDA BARGE CANAL

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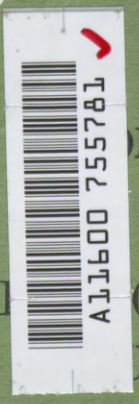

HEARING

BEFORE THE

...OMMITTEE ON WATER RESOURCES

OF THE

COMMITTEE ON

...ONMENT AND PUBLIC WORKS

...NITED STATES SENATE

NINETY-FIFTH CONGRESS

SECOND SESSION

ON

S. 1592

A BILL TO TERMINATE FURTHER CONSTRUCTION OF THE CROSS-FLORIDA BARGE CANAL PROJECT

S. 3337

A BILL TO TERMINATE, IN THE YEAR 1979, FURTHER CONSTRUCTION OF THE CROSS-FLORIDA BARGE CANAL PROJECT, TO ADJUST THE BOUNDARY OF THE OCALA NATIONAL FOREST, FLORIDA, AND FOR OTHER PURPOSES

JULY 26, 1978

SERIAL NO. 95-H1

DOCUMENTS

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DEAUTHORIZATION OF THE CROSS FLORIDA BARGE CANAL

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DEAUTHORIZATION OF THE CROSS FLORIDA BARGE CANAL

WEDNESDAY, JULY 26, 1978

U.S. SENATE,
COMMITTEE ON ENVIRONMENT AND PUBLIC WORKS,
SUBCOMMITTEE ON WATER RESOURCES,
Washington, D.C.

The subcommittee met at 10 a.m., pursuant to call, in room 4200, Dirksen Senate Office Building, Hon. Mike Gravel (chairman of the subcommittee) presiding.

Present: Senators Gravel and Wallop.

OPENING STATEMENT OF HON. MIKE GRAVEL, U.S. SENATOR FROM THE STATE OF ALASKA

Senator GRAVEL. Good morning.

This morning the Subcommittee on Water Resources is meeting to consider legislation to deauthorize the Cross-Florida Barge Canal.

The Cross-Florida Barge Canal was authorized in 1942. The authorized project would have provided a barge canal about 110 miles long extending from Palatka to the Gulf of Mexico. Project construction was not begun until 1964. By 1971, over $70 million had been spent and one-third of the project completed. President Nixon directed that construction be terminated in January 1971. By that time, completed construction included three dams, one reservoir, four highway bridges, recreation facilities and about 25 miles of canal.

Extended court litigation followed the Nixon directive, and the Corps of Engineers was directed by Congress in 1972 to restudy the project's environmental, economic and engineering elements.

That restudy culminated in an environmental impact statement and report to the Secretary of the Army in February 1977, the Chief of Engineers concluded that, while construction of the canal was feasible from an engineering standpoint, the economic justification was marginal and, when combined with adverse environmental impacts, would render the project not feasible.

In May 1977, President Carter directed a joint study to be undertaken by the Secretary of the Army and the Secretary of Agriculture to review and make recommendations on the alternatives for restoration of the Oklawaha River portion of the Cross-Florida Barge Canal project, and on the alternatives for disposition of the facilities and lands of the project outside the Oklawaha River.

That report on alternatives was submitted from the Jacksonville district in August 1977.

S. 1592 was introduced by Senators Chiles and Stone in May of last year. The legislation does two things. It terminates existing authority for further construction of the canal, and it authorizes the corps to operate and maintain existing facilities and lands until further disposition by law of those facilities and lands.

Two days ago, Senators Chiles and Stone introduced another measure, S. 3337. This bill terminates authority for further construction effective July 1, 1979. It also extends the boundaries of the Ocala National Forest to include certain lands previously associated with the project, and transfer lands owned by the Federal Government to the Secretary of Agriculture. The Secretary of Agriculture is also authorized and directed to acquire lands held by the canal authority within the national forest boundaries.

This subcommittee meets today to consider two major issues. First, should the further construction of this major project be terminated; and, second, if it is, what disposition should be made of acquired lands and facilities which are in place. We look forward to hearing from congressional representatives, the State of Florida, environmental groups, project proponents, and the administration. This hearing is a necessary step in the disposition of a major project of great importance to the State of Florida.

I am happy to have as our first witness the distinguished senior Senator from Florida, Senator Lawton Chiles.

STATEMENT OF HON. LAWTON CHILES, U.S. SENATOR FROM THE STATE OF FLORIDA

Senator CHILES. Mr. Chairman, I want to express my appreciation for your cooperation in scheduling this hearing. I realize the subcommittee has a crowded agenda and we are grateful for the opportunity to discuss this legislation which is of considerable importance to the State of Florida.

The bill, introduced by myself and Senator Stone, terminates authority for further construction of the Cross-Florida Barge Canal. The barge canal has a long and difficult history in Florida and it is time for the Congress to finally put the project to rest. The majority of Floridians agree that the canal should not be built and that its adverse impact outweighs any possible remaining benefits.

The President in his environmental message of May 23, 1977, called for termination of the barge canal project. The Governor and the Florida cabinet have recommended against completion of the canal.

Further, the Army Corps of Engineers, after a thorough reexamination of the project, giving consideration to all environmental and economic factors, has concluded that the barge canal is not a viable undertaking on either environmental or economic grounds.

The Cross-Florida Barge Canal project called for the development of a high-level barage canal about 107 miles long entering from the St. Johns River at Palatka, Fla., to deep water in the Gulf of Mexico near Yankeetown.

Discussion of a canal across the northern portion of Florida dates back to 1826. In 1942 the Congress authorized the Cross-Florida Barge Canal project. Funds were appropriated in 1962 and work began in

1964. By 1971 construction was one-third completed when the President by Executive order halted work on the project to prevent potential environmental damage. The Governor and the Florida cabinet suspended any further support for the canal until completion of a new cost benefit analysis and an environmental impact statement.

The Corps of Engineers was assisted in the environmental assessment project by an interagency coordinating group consisting of Federal and State agencies. Among the participating agencies were the Department of Interior, Environmental Protection Agency, Department of Agriculture, Forest Service and State agencies including the Department of Natural Resources, Florida Game and Fresh Water Fish Commission, the canal authority, and the Department of Administration.

It was concern with the environmental damage the canal would incur that prompted initial efforts to stop construction and undertake a restudy. The completed environmental impact statement makes very clear that this concern was well justified. The Washington-level policy group, consisting of the Departments of Agriculture, and Interior EPA and CEQ, concluded that hydrologic, pollution, fish and wildlife, recreation, and other environmental considerations as presented in the impact statement warranted a strong recommendation against completion of the canal.

Of particular importance is the threat construction and operation of the canal would pose for the Florida aquifer and consequently Florida's fresh water supply. The Florida aquifer is a water-filled underground layer of fragmented limestone which provides the region's supply of fresh water.

Twenty-eight miles of the canal would cut down into this limestone, raising the possibility of interchange between canal waters and the rest of the aquifer. Information developed by professional hydrologists and geologists points to the prospect of serious contamination of the aquifer if such an interchange should take place.

Another primary environmental concern is the Oklawaha River system. The Oklawaha River basin is a subtropical ecosystem containing an unusual diversity of habitats with their associated plant and animal life. Its value is underscored by the fact that it is the only river of this type in central or south Florida remaining in a relatively natural setting. Completion of the canal would result in the loss and degradation of this unique river valley with its wildlife and recreational opportunities.

Economic as well as environmental factors argue against continuation of the barge canal system. The Governor and Florida Cabinet in 1972 requested a new cost/benefit ratio analysis to include up-to-date interest rates and construction costs and a reevaluation of recreational benefits to determine if the canal represented a prudent expenditure of taxpayers' dollars. The court, in releasing impounded restudy funds, also required that the restudy report include a current cost/benefit evaluation.

The corps restudy report and evaluation by Federal and State agencies warrant the conclusion that the canal cannot be justified as a good investment. By almost any standard of measure the comprehensive cost of completing and operating the canal outweighs the

economic benefits to be derived. It is only through use of an unrealistic discount rate of 2⅞ percent that a benefit-to-cost ratio greater than "1" can be achieved. If the project is evaluated with interest rates used on currently authorized projects the annual average losses for the canal would be prohibitive.

Other factors pointing to the economic unfeasibility of the project include the failure to adequately assess the cost of adverse effects on environmental quality; the absence of valuation placed on the Oklawaha River ecosystem; and no evidence of major economic development or activity that may be attributable to canal completion.

The combination of environmental and economic considerations presents a most convincing case for terminating authorization for further construction of the Cross-Florida Barge Canal. Perhaps most compelling is the conclusion of the corps itself that:

> When the marginal economic justification is combined with adverse environmental impacts, the combined total effect does not favor completion.

The original legislation, S. 1592, now before the subcommittee simply provides for termination of the canal project. Senator Stone and I have recently introduced a bill, S. 3337, that combines S. 1592 with elements of S. 1593. This bill has been jointly referred to the Committee on Environment and Public Works and the Committee on Agriculture, Nutrition, and Forestry. S. 3337 would establish an effective date for termination of July 1, 1979, extends the boundaries of the Ocala National Forest, and authorizes the Secretary of Agriculture to acquire lands within the boundaries of the Ocala National Forest now held by the canal authority of the State of Florida.

This combined bill is intended to give the Florida Legislature an opportunity to decide on the disposition of canal lands and provide for reimbursement of the countries along the canal route while protecting these lands from litigation which may result in their return to private ownership.

Once again I appreciate very much the opportunity to testify in support of this legislation and urge the subcommittee to give it prompt and favorable consideration.

Senator GRAVEL. Thank you very much, Senator Chiles. I think your testimony is quite compelling.

Senator Stone, would you please feel free to go forward.

STATEMENT OF HON. RICHARD STONE, U.S. SENATOR FROM THE STATE OF FLORIDA

Senator STONE. Thank you, Mr. Chairman.

Mr. Chairman, Senator Chiles and I appreciate the subcommittee holding this hearing on the deauthorization of the Cross-Florida Barge Canal.

I will be brief so as not to repeat the testimony of my senior colleague.

On May 24, 1977, on behalf of the administration, Senator Lawton Chiles, my senior colleague, and I introduced legislation, S. 1592, to terminate further construction of this project. President Carter had called for the deauthorization of the project in his environmental message of May 1977.

This action followed the February 1977 recomendation of the Army Corps of Engineers that completion of the Cross-Florida Barge Canal was not warranted because of its marginal economic justification combined with its adverse environmental impact. The Governor and the Florida Cabinet have also recommended against completion of this project and passed a resolution on January 17, 1977, requesting Congress to deauthorize it.

The deauthorization of the canal project is the necessary first step in deciding what to do with the existing canal lands and structures and reimbursing the Florida counties for the land that originally provided for the project. However, it is important to maintain and protect those existing lands and structures until decisions can be made on these matters.

It is for that reason that Senator Chiles and I recently introduced a revised version of our orginal legislation. This bill, S. 3337, would deauthorize the project effective July 1, 1979, and extend the boundary of the Ocala National Forest to include those lands presently being held by the canal authority of Florida.

We both appreciate having this opportunity to testify and look forward to working with the subcommittee to insure early action on this legislation.

Thank you so much, Mr. Chairman.

Senator GRAVEL. I would tell my colleagues that I am very sensitive to the fact that when two members of a delegation, both Members of the Senate, are opposed to a project in their State, I would be the last one to not honor that attitude. So, I want to say, your words are falling on very sympathetic ears. And I hope that precedent will be honored.

Senator STONE. Thank you, Mr. Chairman.

Senator GRAVEL. Thank you, gentlemen.

Our next witness is Congressman Sikes. Is the Congressman here?

We will take him as soon as he does come in. Our next witness would be Congressman Bill Young, or Congressman Bill Chappell. We will take these Congressmen as they come in.

Our next witness will be Mr. Michael Blumenfeld, the Deputy Undersecretary of the Army.

Nice to have you. Is the other gentleman here with you?

STATEMENT OF MICHAEL BLUMENFELD, DEPUTY UNDERSECRETARY OF THE ARMY, ACCOMPANIED BY MAJ. GEN. CHARLES I. McGINNIS, DIRECTOR OF CIVIL WORKS, U.S. ARMY CORPS OF ENGINEERS

Mr. BLUMENFELD. Yes, sir, he is.

Senator GRAVEL. Feel free to join us.

Mr. BLUMENFELD. It is a pleasure to be here today to discuss the Cross-Florida project. If you don't mind, I will skip part of the testimony which gives background information that the Senators have already given. It is in my statement for the record. (See p. 72.)

The report to which the Senators referred as having been directed by the President last May was completed late last year, and presented an array of alternatives for restoration and disposal of the project land.

In February 1978, the Secretaries recommended to the President a plan generally characterized as involving an intermediate level of restoration. The plan would have a first cost of about $26 million at 1977 price levels. The largest share of these costs, about $16,600,000, is for acquisition of land to extend the Ocala National Forest. The balance is for restoration and disposal of other existing project land and facilities by the Corps of Engineers. I am pleased to announce today that the President has approved the recommended restoration and disposal plan.

Let me emphasize that after work on the project was halted in 1971, thorough studies had been made of the economic and environmental consequences of completing construction as opposed to noncompletion. The Corps of Engineers held public hearings as part of their studies, and had the cooperation of other Federal agencies and the State of Florida, and the advice of a Washington-level policy group consisting of representatives from the Department of Interior, EPA, Department of Agriculture, and CEQ.

The recommendation which came from these efforts and which was supported by the State of Florida and the Washington-level policy group was that construction activity should be terminated and that studies should be initiated to determine how best to dispose of canal facilities and lands.

Well, that restoration and disposal study has now been done, the recommendation has been made by the Secretaries of Army and Agriculture, and the President has approved that recommendation. The study of restoration and disposal alternatives includes the determination that the environmental impact statement filed for the restudy report is adequate to support the recommended restoration and disposal plan.

We have also received the support of the Governor of Florida for the restoration of the Oklawaha portion of the project.

Mr. Chairman, I and Secretary Cutler from Agriculture, who I don't think has arrived yet, would like to furnish to the committee draft legislation which the administration will be formally submitting later this week to Congress.

Senator GRAVEL. Let me just state, we would like to have that. [See p. 79.]

Mr. BLUMENFELD. I think it has been or will be shortly supplied to the staff.

Since this draft legislation is still undergoing final review within the administration, the formal proposal may vary slightly in form, although not in substance from what we are now providing. This legislation would replace the bill you have under consideration—S. 1592—and the bill, S. 1593, which provides for study of a portion of the Oklawaha River for its potential as a wild and scenic river and for extension of the Ocala National Forest boundary.

There is also no need for further consideration of draft legislation submitted by the Secretary of Agriculture on July 18, 1977, which is very similar to S. 1593, and as I understand, the provisions of S. 3337, which has been referred to by Senators Stone and Chiles.

Our proposal is that deauthorization legislation is needed now and that the highly complex matter of restoration and disposal will take

more time to receive the full consideration of the Congress. Therefore, in this legislative package, we have included, for future enactment, draft legislation which would restore the Lake Oklawaha area and dispose of existing lands and structures, and additional draft legislation to add the Oklawaha River for study as a wild and scenic river.

Through this legislative proposal, we are advocating several changes to legislation submitted last year.

First, as I just mentioned, we are proposing legislation in two phases.

The first phase, which we propose for immediate enactment, would deauthorize the project effective 1 year from the date of enactment. That would allow the State of Florida time to adopt legislation needed to preserve lands and interest in lands held by the canal authority until those lands are finally disposed of.

The same piece of legislation would also extend the boundaries of the Ocala National Forest along the Oklawaha River and in the Rodman Pool area, and would authorize the Corps of Engineers to operate and maintain existing lands and facilities through fiscal year 1980.

This operation and maintenance authority will allow time for the Congress to decide upon the proper restoration and disposal plan. As you can tell, this is generally similar to the bill described by the two Senators, S. 3337.

The Ocala National Forest boundary extension would involve acquisition of 22,600 acres of land held in fee by the canal authority, acquisition of 3,000 acres of land for which the authority holds flowage easements, and transfer of 7,200 acres of land held in fee by the Corps of Engineers.

Total land or rights in land acquired or held by the canal authority for the barge canal project includes 39,173 acres of fee lands and 11,751 acres of flowage easements. The boundary extension and land acquisition would, thus, involve about 60 percent of the canal authority fee lands and about 25 percent of their easement lands.

The second phase of our legislative recommendation would provide for disposal of project lands and for study of a key portion of the Oklawaha River for designation as a wild and scenic river. The disposal plan would abandon, fill, or remove existing project channels, locks, dams, and spillways and generally return most of the construction areas to near the original ground contours.

The restoration plan for Lake Oklawaha includes draining the lake over a period of years, removal of most of the dam and spillway, and provision of assistance as needed for the natural revegetation of the present Rodman Pool area. We propose this legislation for future enactment, after thorough study and discussion by the Congress.

I believe that Dr. Cutler of the Department of Agriculture was planning to be here. He was held up in another hearing and at some point may want to say a few words further elaborating on the legislative package which I have described.

General McGinnis is here to speak or answer any questions you may have, sir, on the basis for the Chief of Engineers' recommendation that activities leading toward completion of the canal should be terminated, and to provide a fuller description of the restoration plan recommended by the Secretaries and approved by the President.

Senator GRAVEL. I thank you very much.

I think we will have no questions. We may submit some in writing at the end of the hearings.

I think the testimony is quite complete. I thank you very much.

[Prepared statements of Mr. Blumenfeld, General McGinnis, and Mr. Cutler appear beginning at p. 72. Responses to written questions follow:]

DAEN-CWP-E
8 August 1978

CROSS FLORIDA BARGE CANAL
SENATE HEARINGS, 26 July 1978
DEPARTMENT OF THE ARMY QUESTIONS

SUNK COSTS

Question #1. Why were "sunk" costs included in the economic evaluation of the completion alternative?

Answer #1. Inclusion of the costs for completed works is consistent with our procedures for evaluating projects in the construction category. If the project were reevaluated as a new proposal, sunk costs would be omitted, and the current interest rate used in determining a benefit-cost ratio.

Question #2. What would the benefit-cost ratio be if the selected completion alternative considered the costs and the benefits as "sunk"?

Answer #2. Table 2 on page 22 of the Final Summary Report displays the benefits and costs for the construct alternatives, including estimates of sunk costs and benefits. Subtraction of the average annual costs and benefits for completed works, and the use of a 2-7/8 percent interest rate, results in a benefit-cost ratio of 1.22. If this were considered a new project proposal with sunk costs and benefits omitted, using the 6-3/8 percent interest rate current at that time, the benefit-cost ratio is 0.63.

REDEVELOPMENT BENEFITS

Question #1. Does not Principles and Standards guidance permit the use of area redevelopment benefits (ARA). Does present policy permit such inclusion?

Answer #1. Principles and Standards guidance permits the use of ARA benefits. However, at the time of this reanalysis, the Water Resources Council was in the process of identifying regions in which unemployed or underemployed labor resources existed. On 23 November 1976, the Office of the Assistant Secretary of the Army (Civil Works) asked that the Corps not use ARA benefits in plan formulation pending Council designation of appropriate planning regions, and the development of detailed guidance on benefits measurement. Present policy permits the inclusion of ARA benefits.

Question #2. What would be the benefit-cost ratio including ARA benefits and other potential benefits as described in the Chief's Report, including Section 140 benefits?

Answer #2. Including the costs for completed works and a 2-7/8 percent interest rate, the following table displays the sensitivity of the benefit-cost ratio to potential benefits.

Items*	Annual ($000) Benefits	Costs	BCR
Completion Alternatives	$18,428	$18,380	1.00
Include ARA Benefits	20,038	18,380	1.09
Include Coal Shipments	23,428	18,380	1.27
Include 10% Contingency	19,723	18,380	1.07
Include ARA, Coal	25,038	18,380	1.36
Include ARA, Coal, 10% Contingency	26,833	18,380	1.46

*Section 140 benefits were not evaluated in the economic reanalysis because of the time constraint. The Law which allowed us to include them was passed in the fall of 1976, and the court-ordered completion date was in February 1977. However, a supplemental study funded by EPA had failed to reveal any locational decisions induced by the canal.

ENVIRONMENTAL EFFECTS

Question #1. Would you summarize the environmental impact of the completion alternative and state your opinion as to the relative severity of those impacts?

Answer #1. The completion alternative will produce the following probable environmental impacts:

-Permanent loss of 25,800 acres of productive forest, 4,800 acres of unclassified forest, and 4,000 acres of non-forest land.

-Habitat of 15 endangered or threatened species would be degraded or decreased, while habitat for two species would be improved.

-Loss of two red-cockaded woodpecker clan sites, and manatee numbers reduced.

- Soluble substances, if spilled in the Summit Reach could enter the Florida aquifer, but rapid clean-up response will reduce the hazard.

-Change from riverrine to impoundment environment will increase the possibility of aquatic plant control problems.

-Some of the larger animals, such as bear and the Florida panther will move to other locations.

-Cave crustaceans and a bat colony would be lost or displaced, and spring molluscs and crustaceans would be lost.

The Chief of Engineers' position on the severity of the adverse impacts is that the adverse impacts are not so severe to demand a decision against completion of the canal if it were economically justified by an ample margin.

LANDS

Question #1. If the project is deauthorized, what disposition will be made of project lands?

Answer #1. Both the Federal Government and the Cross Florida Barge Canal Authority hold title to lands acquired for the Cross Florida Barge Canal. If the project is deauthorized without the enactment of legislation directing the disposal of the lands owned by the Federal Government, these Federal lands would be subject to being reported excess to the General Services Administration for future use in accordance with the provisions of existing Federal law. Lands owned by the Cross Florida Barge Canal Authority for the purposes of the project would presumably be held by the State of Florida or one of its authorities or disposed of in accordance with State law.

Question #2. Should local entities be reimbursed by the Federal Government for the lands?

Answer #2. To the extent that the State sponsor retains title to the lands in question, there is no apparent basis for any Federal reimbursement for these non-Federal lands. There might, however, be some basis for an equitable Federal reimbursement of the State of Florida for lands that have been contributed by the State of Florida to the Federal Government for the Cross Florida Barge Canal, if such lands are retained in Federal ownership and are not returned to the State, or are used for a suitable public benefit after deauthorization of the project.

Question #3. What is the Federal responsibility to local project sponsors if the project is terminated?

Answer #3. The Administration's pending legislative proposal would cause the Federal Government to be responsible for acquiring all lands and interests in lands held by the Cross Florida Barge Canal within the boundary extensions of the Ocala National Forest, which extensions are also being proposed by the Administration. Moreover, the Administration's legislative proposal would authorize the Federal Government to convey to the State of Florida, without further cost to the Federal Government or the State, all lands owned by the Federal Government for purposes of the Cross Florida Barge Canal and situated outside the extended Ocala National Forest.

Question #4. How much of the land held, either by the Federal Government or by the canal authority, was obtained through condemnation procedures? Was any agreement made at the time of condemnation that, should the land not be used for this particular project, the prior owners could have the option of buying it back?

Answer #4. Land for the Cross Florida Barge Canal was acquired by and for three separate entities - the Federal Government, the Ship Canal Authority of Florida, and the Cross Florida Barge Canal Authority. The U. S. acquired 3,981 acres in fee for the Cross Florida Barge Canal project. The U. S. acquired for the Ship Canal Authority 6,263 acres in fee which were transferred to the Cross Florida Barge Canal Authority in 1961. The Cross Florida Barge Canal Authority also acquired 1,823 acres in easements which were transferred by the State of Florida to the Corps for the Cross Florida Barge Canal. The Cross Florida Barge Canal Authority estimates that they acquired 20,665 acres in fee by condemnation and 8 ,675 acres in easement. Of the fee acreage acquired by the State, 3,937 acres were transferred to the United States and the remaining 16,728 acres are still held by the State. The United States made no promises that prior owners would have the option of buying their lands back if they were not used for the Cross Florida Barge Canal. With respect to lands acquired by the State in fee, we have no knowledge of whether or not any promises regarding a buy-back option were made.

Senator GRAVEL. Our next witness is Congressman Sikes, who has just arrived. Please go forward as is most comfortable to you, Congressman.

STATEMENT OF HON. ROBERT L. F. SIKES, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF FLORIDA

Representative SIKES. Thank you Mr. Chairman. I appreciate very much this opportunity to appear before your distinguished committee in opposition to the proposal to deauthorize the Cross-Florida Barge Canal.

First, let me express my personal appreciation to you and your committee for the many good things that you have done for the waterways of this Nation. It is a very, very important work. Now, with reference to the subject of your hearing, I have supported the Cross-Florida Barge Canal from its inception, even back when Franklin Roosevelt first provided work relief fund to initiate it in 1945.

I have felt that it would be economically sound; that it would encourage industrial development; that it would strengthen the defenses of our country, and that any objectionable features which have been pinpointed can be corrected. I supported the modification of the project to bypass the Oklawaha River and to protect that important scenic right-of-way. This appears to have been the principal item of contention.

While I realize there have been changes in the cost/benefit ratio in recent years, I do not believe this is justification to deauthorize the project. We don't have the facts, and we should have them before any further action is taken.

The Cross-Florida Barge Canal was authorized in 1942. The project has been funded by local and Federal authorities since 1963. Construction began in February 1964 and was about 30 percent completed when work was stopped by President Nixon in 1971 because of environmental consideration. Ironically, almost in the same breath, Mr. Nixon authorized the Alaska pipeline. There should be no question but that the environmental damage by the pipeline is huge in comparison with that anticipated from the Cross-Florida Barge Canal.

And, Mr. Chairman, I supported the Alaska pipeline.

At no time would Mr. Nixon discuss the canal with members of the Florida delegation. This was a highly disappointing situation. Subsequent court action on the canal determined another economic restudy and environmental impact statement should be prepared on the canal. These studies have now been completed and hearings on the study report have been held.

Mr. Chairman, the Corps of Engineers freely admits that economic justification falls short of an accurate representation in that their reports have ignored pertinent economic benefits that could tip the scales of the benefit/cost ratio from marginal to outstanding.

There are a number of unresolved issues relative to this project that are yet to be heard. Also, there are new criteria to be considered such as the coal-burning power plants that would utilize the canal for transportation of enormous quantities of fossil fuels to generate needed low-cost energy in the future.

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The Cross-Florida Barge Canal will tie together 26,000 miles of inland waterways extending from the gulf coast to the coal-rich Western and Midwestern parts of the Nation to the Atlantic and eastern seaboard including the shortened route from the Midwest via the Tennessee/Tombigbee Waterway. This should not be disregarded.

The relative efficiency for fuel savings in water transportation all other modes of transporting bulk commodities is an important consideration. Compare, for example, that 1 dollar's worth of gasoline or its equivalent will move 1 ton of bulk commodities 5 miles by air, 15 miles by truck, 65 miles by train, or 333 miles by waterborne barge.

In the early history of the canal, a serious question was raised about the effect of the canal on water supply to southern Florida. This was related primarily to the plans for a sea level canal. Those plans were abandoned long ago. Consequently, there is no danger to water supply from a barge canal across Florida. This is vital because water supply is becoming increasingly a matter of importance to city dwellers and industrial users throughout the Nation. We in Florida more than most States, have been blessed with an abundant supply of fresh water, but even that abundant supply is not inexhaustible. More careful planning for the future will be required. This we are doing. The canal is not involved.

Mr. Chairman, I strongly and sincerely urge this committee not to report legislation to deauthorize the Cross-Florida Barge Canal and I am hopeful you will carefully consider this request.

Deauthorization means the end of a project on which millions of dollars, both State and Federal, have been expended. Deauthorization serves no useful purpose. It pleases only those who have fought the project from its inception for reasons real or imagined. Retaining authorization obligates no one for future expenditures. It costs no money. It leaves the door ajar in case there should be a demonstrated need for the project in the future.

Thank you very much, Mr. Chairman.

Senator GRAVEL. Let's go to Jay Landers, the secretary, Department questions.

Representative SIKES. Thank you.

Senator GRAVEL. Let's go to Jay Landers, the Secretary, Department of Environmental Regulation, State of Florida.

STATEMENT OF JAY LANDERS, SECRETARY, DEPARTMENT OF ENVIRONMENTAL REGULATION, STATE OF FLORIDA

Mr. LANDERS. Thank you, Mr. Chairman.

I am Joseph Landers. The Governor, who was unable to testify, asked me to represent him and the State on this issue.

We are in support of Senate bill 1592 that would terminate or disauthorize the Cross-Florida Barge Canal. Florida supports this bill with certain amendments that were mentioned by Senators Stone and Chiles.

Our main concern is the effective date should be July 1, 1979, to give us time in Florida, because the Florida Legislature meets next spring, to expand the authority of use of the land beyond that. If the effective date to terminate was now, then, we would be left with land that we had no official use or purpose for. So, it would give the State

of Florida time to be able to have the legislature pass legislation to authorize the Governor and cabinet to use the land for additional purposes.

From the legal point, our attorney general in his letters explains the reasons. I think it is very important. So we are asking that the effective date be extended.

Senator GRAVEL. Could I interrupt here? Has the State legislature spoken on this issue and made a decision one way or the other?

Mr. LANDERS. Well, they have tried but not completely acted on it. In 1976 the Governor and cabinet held a 2-day hearing on this issue, and one of the things that they recommended was the legislature abolish the canal authority and transfer the land to a trust fund. A bill to do this was introduced the next legislative session. Florida has 40 senators. Twenty-seven of the forty sponsored the bill. But the president of the Senate happened to be from an area that supported the canal and the legislation was not successful in passing. It did pass the House in a special session that year.

So we believe there is strong support in the legislature for deauthorizing the canal. So we would ask that this land—about 40,000 acres of land has been condemned—that the boundaries of the Ocala National Forest be extended to include the land around the Oklawaha River, and the date in section 2 of Senate bill 1593 be changed to the July 1978 map for intermediate boundaries, and the Secretary of Agriculture be authorized to acquire this land.

Mr. Ken Tucker, who is assistant attorney general, is here with me. If you have any questions regarding the land matters——

Senator GRAVEL. No, I do not.

Mr. LANDERS. I realize that the function of this committee is primarily deauthorization. I would like to spend my principal time on that.

The State's position on the canal, through the Governor and cabinet, is opposition to its completion and seeks its termination in deauthorization.

There are a number of environmental, economic and engineering reasons for this. First of all, I would like to explain a little bit about the executive branch in Florida. Florida, in addition to a Governor, has six statewide cabinet officers elected. Now, the Governor is the head of a number of State agencies, and then the Governor and cabinet sit as head of a number of other State agencies.

We have a total of 25 State agencies. Some are directly under the Governor and some under the Governor and cabinet. A sort of board of directors.

The Governor and cabinet used to be the head of the agency for this. They started it back in—well, back when the canal was first authorized back in the forties.

In 1972, when the Governor and cabinet still had the responsibility, they voted at that time to suspend their support of the canal. They wanted a new benefit/cost ratio study and new environmental impact statement, and for the canal to be rerouted around the Oklawaha River.

In December 1976, they finally had this information. The benefit/cost ratio study had been completed. They held a 2-day hearing, 2 entire days, over 150 persons from all walks of life and disciplines

spoke on it, both Federal and State agencies, all persons pro and con.

And at the end of that 2-day hearing, they passed a resolution that you have attached to my statement that recommended against completion of the canal and established a task force to recommend the best use of the land, with special emphasis on expanding the boundaries of the Ocala National Forest.

The principal reasons for the Governor and cabinet taking this position after hearing 2 days of testimony from a number of experts—environmental, economists, and engineers—is the fact that this canal, the cut will cut right through the Floridan aquifer.

It has been stated it will not go through the aquifer, but that is not true. The Floridan aquifer is one of the largest, most productive underground water supplies in the world. There are billions and billions of gallons of water in it. It is porous limestone through which the water flows underground. It is like a giant Swiss cheese. There are giant holes in it. This canal would cut through that acquifer, and actually the water in the aquifer would be needed in order to float the barges. So, what we are talking about is floating barges and ships on Florida's drinking water.

There are a number of potential sources of contamination. The construction activity would involve blasting to get through the limestone. It could contaminate local water supplies. Silver Springs, which is one of Florida's main attractions, is only a few miles away from there. They have a great concern about this. We believe it is impossible to have any kind of a canal where you are going to have routine shipping and keep it clean. It is not going to stay clean. This is going to be in our drinking water.

Also, the lockage would require pumping water from lower levels that is of lower quality into this drinking water, and we are most concerned about the possibility of accidental spills and whatever toxic substances may be transported on these barges. And we don't have much information on that. The corps did not provide that information.

From a water quantity standpoint, if I could, I would like to refer you to this diagram and show what we consider to be the problems of water quantity. You can see that at the bottom level, you have the sea level. There was talk at one time about a sea level canal in Florida, which means that the cut would have to be all the way down to the sea level area. They decided not to make it at sea level. And that is why locks would now be needed to keep the water at 31 feet. The 31-foot level is now proposed to be the bottom of the canal. The barges would need a draft of at least 12 feet of water to float. Thus it is 43 feet from sea level to the surface level of the canal.

The water table averages about 44 feet; in some places it may be 40 and in some places 49 or 50. But it averages about 44 feet. Which means in order to have the water in the canal to float the barges, you can't have major drawdowns of water in that area or you are going to lower it below the 44-foot level. So what we are talking about, is by putting a canal through that area, you are going to highly restrict any consumptive use of water in that area because you cannot have a drawdown.

In addition, the canal has been represented by some to be a reservoir of fresh water—impound fresh water and that will give us water for drinking in the State of Florida.

Just the opposite is true. The water is there and underground and protected. But if we make a cut into the aquifer and expose the water to the surface, you expose it to evaporation, which will result in an estimated loss of between 12 million and 42 million gallons a day. Twelve million is the amount of water the city of 120,000 people consumes. So, it would end up consuming fresh water.

From an engineering standpoint, because we have this limestone formation with the large gaping holes in it, grouting to fill in those holes, with 28 miles on either side, would be an enormous or impossible task. We don't even know from an engineering standpoint if it would be possible.

From an economic standpoint, we believe that the canal is a waste and needless expenditure of moneys. About $70 million has been spent on the canal thus far in the State of Florida. To complete it from this point would be over $300 million additional. The benefit/cost ratio is very marginal. It is about 1.07. And that is using the 2⅞ interest rate. If you use an up-to-date interest rate—and it is not unreasonable to talk about using a new up-to-date interest rate that new projects are required to use now because, in effect, we are talking about a new project.

This project has been stopped since 1971. There has been no activity on it. We are talking about spending over $300 million more, and it would be more realistic to use the new interest rates. And if you do that, the cost is way below parity.

You will see testimony, I am sure, from economists who will tell you the canal is going to be a boon to the State of Florida. I hope you will have an opportunity to review the testimony before the Governor and cabinet. These economists stated that the canal, from an economic standpoint, was a very bad investment, and I won't go into the details of it.

So, in closing, we in Florida have had the idea or concept of a Cross-Florida Barge Canal for a long time. Even back early in the 19th century a canal across the State of Florida was discussed. It received its modern day start in 1964. And in 1971, the Governor and cabinet suspended support for the canal, wanting a new environmental impact statement and a new benefit/cost ratio study.

In 1976—this is important—they got that information and they had an opportunity to evaluate it. And with a new alinement which would avoid the Oklawaha River itself, the Governor and cabinet still felt there were too many environmental, economic, and engineering problems. What they said, in effect, is that they don't want a 28-mile ditch to float barges on their drinking water, and we don't need to spend an additional $300 million on it.

The State is not coming here today to blame the Federal Government or the corps, because public works projects are initiated at the public's request, and Florida asked for the canal many years ago. But now we have a chance to revaluate it any say we don't want it.

If the Federal Government is looking for places in order to cut the fat in the Federal budget, then we can't think of a better place to start.

Senator GRAVEL. Thank you very much.

Senator Wallop?

Senator WALLOP. I have only one question. One of the things we are asked to look at here is if it is deauthorized what about restoration and

the responsibilities involved in that? Can you give some description as to the potential use of that which is already constructed?

Mr. LANDERS. Well, I am not sure exactly what you are referring to as restoration. Are you talking about elimination of the Rodman Reservoir?

Senator WALLOP. Yes. It says here President Carter directs the corps to develop restoration alternatives. Restoration would include such things as draining Lake Oklawaha and allowing the land to return to its old character. Varying levels of costs are a minimum of $3 million to $20 million.

I just wonder if there is a use for what has been done now, if it would be necessary to drain the lake.

Mr. LANDERS. Well, there is a lot of controversy about the Rodman Reservoir. There are those who are opposed to it and those who favor it.

It is a large impoundment that has a very severe aquatic wave problem. The Governor's position on it is he would like for the dam to be removed and the river restored to its natural pattern. Eventually it will revegetate and go back to being the natural river it was and be included in the wild and scenic river system.

That is not actually a part of this bill, as I understand it. The bill is just to deauthorize.

Senator WALLOP. I understand that, too, but it does become a question.

Mr. LANDERS. That is the position of the Governor ultimately. But his main concern right now is let's make sure we deauthorize it as a first step. The State very firmly holds that position.

And I believe if Congress acts, the Florida Legislature next spring will provide the necessary follow-through to facilitate the deauthorization.

Senator WALLOP. Were environmental impact statements ever prepared on this?

Mr. LANDERS. Yes.

Senator WALLOP. What did they say?

Mr. LANDERS. Well, they are subject to interpretation. But our feeling of the environmental impact statement is overall it showed a number of environmental problems, as I outlined earlier.

Senator WALLOP. Did it identify the problems?

Mr. LANDERS. Yes.

Senator WALLOP. And ignored, apparently?

Mr. LANDERS. That was most recent.

Senator WALLOP. Done after the project was started?

Mr. LANDERS. That is right. There was no requirement for an environmental impact statement when it started. And it hadn't had one, and the Governor said let's have an environmental impact statement.

Senator WALLOP. Thank you very much, Mr. Chairman.

Senator GRAVEL. Thank you, sir.

[A letter from the attorney general of the State of Florida follows:]

ROBERT L. SHEVIN
Attorney General

STATE OF FLORIDA
DEPARTMENT OF LEGAL AFFAIRS
OFFICE OF THE ATTORNEY GENERAL
THE CAPITOL
TALLAHASSEE, FLORIDA 32304

July 26, 1978

The Honorable Mike Gravel
United States Senator
Room 3121, Dirksen Senate Office Building
Washington, D.C. 20520

RE: Senate Bill 1592,
Termination of
Cross-Florida Barge
Canal Project

Dear Senator Gravel:

Today the Sub-Committee on Water Resources of the Senate Environmental and Public Works Committee will hear arguments relative to termination of authority for construction of the Cross Florida Barge Canal Project. With the amendments as proposed by Senators Chiles and Stone, I strongly recommend the Sub-Committee's approval of this Bill.

Through exhaustive hearings conducted before the Governor and Cabinet in December, 1976, it was clearly demonstrated that the Canal was environmentally dangerous to the State while producing only marginal and speculative economic benefits. Unfortunately, the route of the Canal sliced through the Floridian Aquifer—our chief source of drinking water—and our scientists warn us that the impure waters of the Canal would interchange with the waters of the Aquifer. Furthermore, with present construction costs and interest rates the Canal was predicted to return only sixty-nine cents for every dollar invested.

If indeed there ever were a cogent reason for the Canal, it has long since lost its justification

under modern economic conditions and environmental knowledge. Accordingly, the Governor and Cabinet voted against completion of this project and by Resolution dated January 17, 1977 and furnished separately to the Sub-Committee, requested the Congress to deauthorize it.

I support the amendments to Senate Bill 1592 proposed by Senators Chiles and Stone. They are essential to the State of Florida.

The first amendment makes deauthorization effective July 1, 1979. This allows the Florida Legislature, which next convenes in formal session in April-June, 1979, to enact provisions for disposition of some 40,000 acres of lands held by the State for canal right-of-way.

These lands were acquired by the Canal Authority, a public authority created by the Florida Legislature, for the purchase of the right-of-way for the Canal and for no other purpose. Thus, should Senate Bill 1592 become law without accompanying state legislation, the Canal Authority would hold title to lands for which it has no other authorized use.

Under these circumstances, it is possible Florida courts would order the reversion of title to such lands to the original owners since the Canal Authority would not be authorized to use these lands for purposes contemplated by termination of the project. It could be argued, however, that the lands could be used by the Canal Authority itself to complete the canal or for flood control or water management purposes as authorized by Section 374.051, Florida Statutes. Lawsuits have already been filed in state courts by former owners of canal right-of-way lands seeking their reversion even before deauthorization.

To help assure such lands do not revert to former owners, the Florida Legislature should be given the opportunity this next session to provide for the orderly disposition of canal lands held by the State and, if retained, to authorize their use for purposes other than canal right-of-way.

Undoubtedly, surplus canal lands will be offered to their former owners on some equitable basis, some canal lands will be used for local and state park and recreational purposes, and some canal lands will be transferred to the federal government for inclusion in the Ocala National Forest. To make Senate Bill 1592 effective on July 1, 1979, would allow the Florida Legislature ample opportunity to enact the appropriate enabling legislation for use and disposition of canal lands held by the State and prevent any alleged hiatus in ownership by the State during the period between enactment of federal and complementary state legislation.

The second amendment extends the boundary of the Ocala National Forest to include lands owned by the Canal Authority, authorizes purchase of these lands, and authorizes an appropriation for such acquisition. The sale of these lands by the State will result in the receipt of about $16 million.

As you may know, the right-of-way for the canal traverses six Florida counties— Duval, Marion, Putnam, Citrus, Clay, and Levy—who contributed $9,376,371.84 in ad valorem taxes for acquisition of the right-of-way. The State intends to fully reimburse these counties for their contribution plus interest, which requires a repayment of some $17 million. The State wants to use the proceeds from the sale of canal lands to the federal government for prompt repayment to these six counties. Thus, the amendment extending the boundary of the National Forest, and authorizing an appropriation to acquire canal lands within the extended boundary should be approved.

The last amendment is a technical amendment that provides an updated reference of July, 1978, to the map of the Ocala National Forest and shows the extended boundary as recommended by the State-Federal Task Force that studied the disposition of the canal lands and facilities.

I realize that your committee may not have jurisdiction over all these amendments but felt it important that to the extent you have jurisdiction you be informed of the position of the State.

Finally, while approval of Senate Bill 1592 is a giant and proper step toward termination of this ill-advised project, much remains to be done. Congressional enactment of measures to restore the Oklawaha River, as recommended by the Governor and Cabinet on January 17, 1977, is the next necessary step toward final disposition of this project.

Thank you for your consideration of these views.

Sincerely,

ROBERT L. SHEVIN
ATTORNEY GENERAL

RLS/tkp

cc: Governor Reubin O'D Askew
Senator Lawton Chiles
Senator Richard Stone
Florida Congressional Delegation

Senator GRAVEL. I believe we have Congressman Young and Congressman Chappell. Would you come to the table.

Congressman Chappell, since you are the more senior one, we will let you go first.

Mr. CHAPPELL. In view of the fact I have a more lengthy presentation, we agreed that Congressman Young might go first.

Senator GRAVEL. That is fine with me.

STATEMENT OF HON. C. W. BILL YOUNG, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF FLORIDA

Representative YOUNG. Thank you very much.

First, I want to thank you and the members of your committee for giving us the opportunity to be heard on the question of deauthorizing the barge canal. It is nice to see so many people here supporting the deauthorization. It is a piece of legislation that is 18 years past due. As a Florida State senator, I believe I was the only elected official in the State of Florida who took that position that many years ago.

As you will notice today during your taking of the testimony, there are quite a few others today including the Governor and the State cabinet and I am happy for that support. There are those in our delegation who support the canal and are opposed to the deauthorizing legislation and they are some of the very best friends that I have. They have ably presented over the years their side of this argument, and I think very effectively.

But I do have to disagree with them and I am opposed to further construction of the canal. I strongly support the deauthorizing legislation. When a horse is injured beyond repair, it is put out of its misery. People allowed to think day after day that the Cross-Florida Barge Canal is going to be revised through some effort, should also be delivered from that misery and allowed to know there is no chance of bringing it back.

You have heard from the State officials, and you will hear from the officials of the Corps of Engineers, so I am not going to get into the same type of testimony that they will be presenting.

But after the various studies were completed—and there have been many studies, economic studies, feasibility studies, environmental studies—I just don't think that there is any reason to create one more page of study on the question of the Cross-Florida Barge Canal. It has been studied to death. We should just go ahead and bury it.

You know our two Senators have introduced this legislation to deauthorize. If you were to poll the Florida Members of the United States House of Representatives, I believe you would find that most of them also will be in support of this legislation to deauthorize.

From an economic standpoint, in my opinion, the canal is a bad investment. A wild river would be destroyed, and parts of it have already been destroyed. The probability of water pollution is real. The cost of maintaining the canal even on the Gulf of Mexico inlet was estimated at a cost of $1 million a year just to keep the weeds, aquatic weeds, out of that one short segment of the canal. Were the canal to be completed, we could have the intermingling of the various types of hydrilla and water hyacinths moving from one part of the State to the other, tremendously increasing that problem.

The environmental cost is too great and the economic cost is also too great for the taxpayers in Florida and the United States. I believe the committee would do well to approve this deauthorizing legislation, send it to the floor of the Senate and get it to the House and let us send it on to the President.

Mr. Chairman, I have a lengthy statement I would prefer to submit.

Senator GRAVEL. I thank you very much. Your statement will be put in the record in its entirety. [See p. 112.]

Thank you very much.

Mr. YOUNG. Thank you very much.

STATEMENT OF HON. BILL CHAPPELL, JR., A REPRESENTATIVE IN CONGRESS FROM THE STATE OF FLORIDA

Representative CHAPPELL. Mr. Chairman, let me take this moment to thank the committee for the opportunity to be heard on these very vital projects.

First of all, I would like to submit for the record a copy of the testimony received at the hearing which we held before the Public Works Subcommittee of the House Appropriations Committee. [See p. 122.] At that time testimony was presented as a result of the $2.6 million impact study ordered by Congress. I also request that a summary of the committee's position which appears on pages 68 and 69 of the House Committee on Appropriations Report accompanying the Public Works for Water and Power Development and Energy Research Appropriation bill, fiscal year 1978, which states the committee's position on the Cross-Florida Barge Canal be included in the record. [See p. 171.]

I would like to put in the record a final judgment in the case of *Ocala Manufacturing, Ice & Packing Co.* v. *the Canal Authority of the State of Florida*, wherein the judge in that particular case indicated some real chaos in the event of deauthorization. [See p. 173.] I would like, also, to put my formal statement in the record and merely hit the highlights to save the committee's time. [See p. 114.]

I would like to emphasize that in the beginning the House Subcommittee on Public Works Appropriations held extensive hearings on this matter, based upon the impact study which that very committee had been instrumental in providing funds for. It was a very thorough study with environmentalists and others participating. I happen to be one who is willing to stand on that impact statement. That statement is clear. The testimony received by the subcommittee on that is clear.

Furthermore, I would like to emphasize that I have taken the position that I would not support any funds for the further completion of this canal unless and until an impact study has been made. If that impact study showed clearly and without question that this was not a viable project, both economically and ecologically, I would not support funding for it.

There is division in Florida, and for that reason we have not asked for further funding for the completion until the people of Florida can get their thinking together. This project lies almost totally in the Fourth Congressional District, which is the district I represent. A portion of it lies in Congressman Young's district, and a portion of it lies in Congressman Fuqua's district, and a touch in Congressman

Kelly's district. But the bulk of it lies in my district, and most of it is in my immediate home area.

I grew up in this area—I have hunted, fished, hiked in this area throughout my life. Therefore, I believe I know it better than any other Member of the Congress. If I thought there was going to be one speck of further damage to the ecology of the area, I would be opposed to it. The impact report shows there would not be.

The point is this—all of the damage that can be done to the ecology has been done. Here is a waterway which is some 180 miles in length across Florida, coming up from the ocean beyond Jacksonville, running its way across the State and going out on the west coast. That is 180 miles of waterway. Some 107 miles of that canal has to go across the peninsula. That means it has to be dug in the main part. About 35 percent of that has already been completed, has already been dug.

The corps reports that the current cost estimate for the selected plan is over $300 million. However, I remind the committee that of the $184 million that accounts for the difference in comparison of the July 1970 estimate with the current estimate, $130 million can be attributed to inflation, $40 million to environmental changes, and $12 million to interest charged during an inactive period for work already completed and in service.

In that regard, so that the committee might further understand the present status of this canal, I would like to offer for the record some pictures which illustrate the current status of this project. [See p. 45.] This project is the 100-mile missing link in a 26,000 mile national waterway system, some 2,600 miles of which run from way up in the Maine area down the east coast into the Jacksonville area, across the State into the Gulf of Mexico, and extending around the Gulf of Mexico to the Brownsville, Tex., area.

It would be fed and connected with the Tennessee Tombigbee and other water projects, which, of course, is of tremendous value to the overall waterway system of the country. You will notice in the pictures I showed you, it comes starting in sequence from the Jacksonville area and moves through to the St. Johns River just below Palatka, and comes across the State.

You will see that this project is not something that has just been started. We have spent millions and millions of dollars in acquiring the right-of-way. The local units of government have spent more than $13 million in acquisition, and the Federal Government has spent more than $60 million in the construction effort to date.

You find that two of the impoundment areas are already complete. You will find that two of the three spillways have been completed. So we are talking about a project that is not just beginning but is well underway, and it has existed for such a period of time that it has developed its own ecology.

Mr. Chairman, I would like to now discuss several of the more controversial specifics of the matter. The review of this project comes at a very appropriate time inasmuch as the need for an adequate water supply and the national energy crisis are both vital issues which concern Americans all across the country, north, south, east, and west.

The President has presented his plan for dealing with the energy crisis; the centerpiece of that plan is focused on greater use of coal for power generation and more efficient means of transportation.

I would like to mention for a moment the relative efficiency in the fuel savings. This is testimony of the Corps of Engineers as well as others. Compare for a moment the fact that of gasoline or its equivalent will move 1 ton of bulk cargo 5 miles by air, 15 miles by truck, 65 miles by train, and 333 miles by waterborne barge.

Mr. Chairman the Cross-Florida Water Barge Canal is a national issue, not just a State and local issue. There has been a great deal of emotion concerning this project. As you know, this canal was first authorized in 1942, long before I came to the Congress. When I came to Congress in 1969, the project was fully authorized and partially funded. To date, the 3 dams required have been completed, 3 of the 5 locks have been completed, and 4 of 11 highway bridges have been constructed at a construction cost of $60 million to the Federal Government.

I have heard testimony from the Governor's office that there would be great damage and harm done. The impact study clearly refutes that in every respect. After a 3-year restudy, managed by the Corps of Enginers and supplemented by outside independent organizations with acknowledged expertise in the field, we learned the facts presented in the report which I have submitted for the record. I am convinced that the Cross-Florida Barge Canal is both economically and ecologically sound; that, therefore, further project construction and operation would result in no adverse environmental impacts that cannot completely be overcome by sound engineering practices, that no damage would result to the aquifer, that the water supply of south Florida would not in anywise be affected, that there would be no danger of salt water intrusion, that there would be no lowering of the water table—aside from minor scattered fluctuations along the immediate canal littoral—and that the canal would provide both flood control and water storage, vital to us at this time.

In addition, it is important to note that from an ecological standpoint, there would be no rare or endangered species significantly affected. On the other hand, project completion would increase the habitat for ospreys, eagles, wading birds, water fowl, and alligators, to mention only a few endangered species.

Construction to date has enhanced fisheries and provided increased habitat for nesting seabirds and diamondback terrapins.

Mr. Chairman, I would like to point out that this assessment is not mine alone but it is that of the House Appropriations Subcommittee on Public Works, of which I am a member. In some ways the committee found that the project construction and operation would be economically and environmentally sound.

In the remaining time, Mr. Chairman, I would like to hit just a few of the highlights of the corps testimony on the most salient issues. I requested that the corps make available today Major General McGinnis, director of civil works, and Lloyd H. Saunders, James L. Garland, and Sam Eisenberg of the Jacksonville district office who participated in the restudy effort and who have intimate knowledge of the Cross-Florida Barge Canal project. They are available here today to reaffirm, I believe, the facts as reflected by the corps testimony to which I have just referred.

As a matter of fact, I would like to ask them at this time if they have any change of position from their testimony before the House

Public Works Subcommittee. I believe General McGinnis is here. Do you reaffirm the previous testimony, General?

Major General McGINNIS. There is no change to the testimony presented in April 1977, to my knowledge.

Mr. CHAPPELL. Thank you.

Is Mr. Saunders and Mr. Garland and Mr. Eisenberg here? Any changes in the testimony as given before the committee?

FROM THE FLOOR. None, sir.

Mr. CHAPPELL. Thank you.

Let's talk about endangered species a moment. The final summary environmental impact statement on page 16 states, and I quote, "None of the project area has been declared critical habitat for any endangered species."

With reference to Lake Ocklawaha, this manmade lake, created during earlier construction, has gained national reputation as an excellent national resource for both fishing and recreation. On page 32 of the final EIS, it is pointed out that the Lake Ocklawaha bass catch rate of .16 per fishing man-hour was more than twice that of any other reach, except Lake Rousseau, which is over on the other end of that canal, and that was .12. These are two of the finest fishing areas in the whole country, according to the study.

With respect to sunk costs, in the restudy effort by the corps, the $60 million already invested in canal construction, was included in the cost to complete the project. Had these costs not been included, it would have raised the corps' benefit/cost ratio to 1.27 to 1.

It is widely recognized that sunk cost should not be used in determining whether or not a project should be completed starting from now, going henceforth. In fact, when President Carter undertook his review of ongoing water projects in 1977, he specifically excluded sunk costs in determining economic viability.

In my view, it is a totally inconsistent policy for the corps to use sunk cost in the evaluation of the Cross-Florida Barge Canal project while at the same time excluding sunk cost from other water resource projects.

I would like to mention for a moment one more fact which I think is important with reference to the Oklawaha River. There has been research about designating the Oklawaha River as wild and scenic river. The EIS report states, and I quote:

> A letter and independent study by the U.S. Bureau of Outdoor Recreation (1975) eliminated the Oklawaha River from consideration for wild and scenic river status because it is, one, partly impounded; two, partly channelized; and three, the remainder too short to meet the criteria.

Furthermore, there has been development on other segments of the Oklawaha River which further reduces its eligible link.

I would like to come now to the present status. Local units of government have expended over $13 million to purchase the required right-of-way for this project, which was acquired by the canal authority primarily through condemnation proceedings for the prime purpose of water transportation and secondarily for recreation.

Title was thence transferred to the Federal Government. And in my view, any abandonment of this project by the Federal Government will result in a return of the acquired land to the original owners and will entail lengthy and costly legal proceeding.

My view in this matter is supported by a recent final judgment rendered by the Circuit Court, Fifth Judicial Circuit, in and for Marion County, Fla., in *Ocala Manufacturing, Ice and Packing Co.* v. *The Canal Authority of the State of Florida*, a body corporate under the laws of the State of Florida.

The court, in its decision entered on September 28, 1977, stated, among other things:

> It is therefore ordered and adjudged:
> One, that upon the happening of any of the following events:
> A, the Congress of the United States of America deauthorizes the Cross-Florida Barge Canal project.
> B, the United States Congress fails to appropriate funds for the construction of the Cross-Florida Barge Canal and the Eureka Pool, within four years from the date hereof.
> C, the Legislature of the State of Florida abolishes the defendant or attempts to transfer its assets in conjunction with such abolishment of otherwise.
> D, the Legislature of the State of Florida enacting legislation prohibiting the construction of the Cross-Florida Barge Canal and the Eureka Pool.
> The title to the described lands shall revest in the Ocala Manufacturing Company, successor in interest to Ocala Manufacturing, Ice and Packing Company, upon the deposit in the registry of this court of the sum of $395,848.50.
> Done and ordered in Ocala, Marion County, Florida, this 28th day of September 1977.

Signed by Judge Wallace Sturgis, circuit judge.

That case, Mr. Chairman, was the weakest case because that was a negotiated transfer. The case is much stronger where condemnation proceedings were had. I participated in those as a lawyer a number of years ago.

You can see if we open this can of worms by deauthorization, Mr. Chairman, we are going to have every lawsuit in the world and cost the State government and local units of government millions of dollars. Because in my view as a lawyer, these properties are going to revert. We are going to open a can of worms like you have never seen.

In closing, Mr. Chairman, I recognize that there were many witnesses who requested to testify in support of the project who could not be heard due to a lack of available time. There are, however, a good number of those potential witnesses here today, and I would like to ask that they stand at this time and identify themselves for the record, if I might.

Would you stand, those in favor.

Mr. DEAN. Ed Dean, Townley Engineering and Manufacturing Co.

Mr. TALLEN. Jay Tallen.

Mr. CHAPPELL. Some of these will be heard. I think they are on your list.

Mr. BUNTON. Ray Bunton, Florida Waterways Association.

Mr. ALLEN. Dewey Allen.

Mr. EDMISTEN. Bill Edmisten, environmental consultant.

Mr. BARLOON. Marvin Barloon, retainer for the Cross-Florida Barge Canal.

Mr. EVANS. Giles Evans. I am scheduled to be here.

Mr. CHAPPELL. In a recent poll taken by the Jacksonville Times-Union, which serves the counties along the proposed canal route, 51 percent of those responding favored completion of the Cross-Florida Barge Canal project, while only 23 percent were opposed. The remainder either had no opinion or were not familiar with the project.

In addition, Duval, Putnam, Citrus, and Marion Counties which lie along the canal route have adopted resolutions supporting completion of the Cross-Florida Barge Canal.

Based on the weight of the evidence presented to the Public Works Subcommittee of the House Committee on Appropriations by the Corps of Engineers in support of their 3-year restudy effort, I must strongly oppose S. 1591, a bill to terminate further construction of the Cross-Florida Barge Canal project.

Mr. Chairman, I would like to say, in summary, that the result of the deauthorization of this project would mean that we would draw down and destroy a very important asset to the area, establish many years in the form of water impoundment. Enough water is impounded in the Oklawaha impoundment area alone to supply a city the size of Miami and St. Petersburg—and incidentally, they are calling on us now.

If we deauthorize this canal, we will render useless the facilities already in place for flood control, which is very important to our area. If we deauthorize this canal, we will destroy one of the most valuable recreation areas in the whole area. Palatka, some 15 miles from this project, would suffer, according to a recent review, of over $5 million a year.

We would destroy one of the finest fishing areas in the entire country. We heard comments here today about the aquatic weeds. This is not solely a problem of this lake. This is a problem we have all over Florida, and it is less extensive in this lake than many of the prime lakes in the State. There is nothing new about that.

We would be spinning off these millions and millions of gallons of water every day into the sea, as they did in south Florida. In south Florida, the swamps were drained when they should have been impounded and, as a consequence, Miami and other areas are suffering for water.

It is in cases like this that we need worry about salt water intrusion, not with a canal that come across Florida in steps. We know water doesn't run uphill. So anybody who argues about the salt water intrusion is going against the laws of nature.

If we deauthorize this canal, we will create legal chaos. We will waste considerable taxpayers' dollars already spent, and spend more in the proposed destruction of these facilities.

It is almost incomprehensible that anybody would want to destroy the kind of facilities you see in that document before you.

I, therefore, respectfully request, Mr. Chairman, that you not deauthorize this canal. Let's leave it in place and let commonsense take its course. Let's use the facilities that we have to the best advantage, and for goodness sakes, not waste further the taxpayers' money.

Senator GRAVEL. Thank you very much, Congressman.

We have no questions. That is a very fine, detailed statement.

[The pictures submitted for the record by Congressman Chappell follow:]

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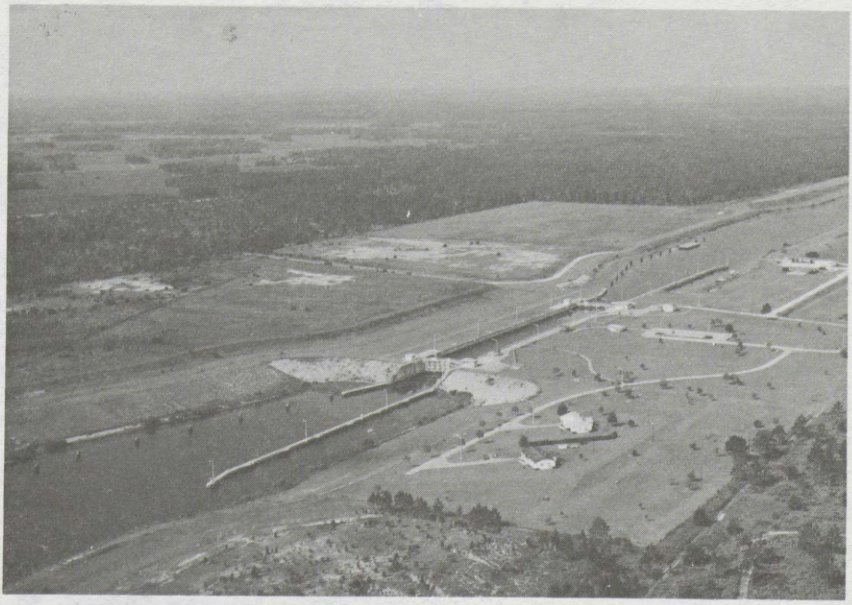
St. Johns River South of Palatka



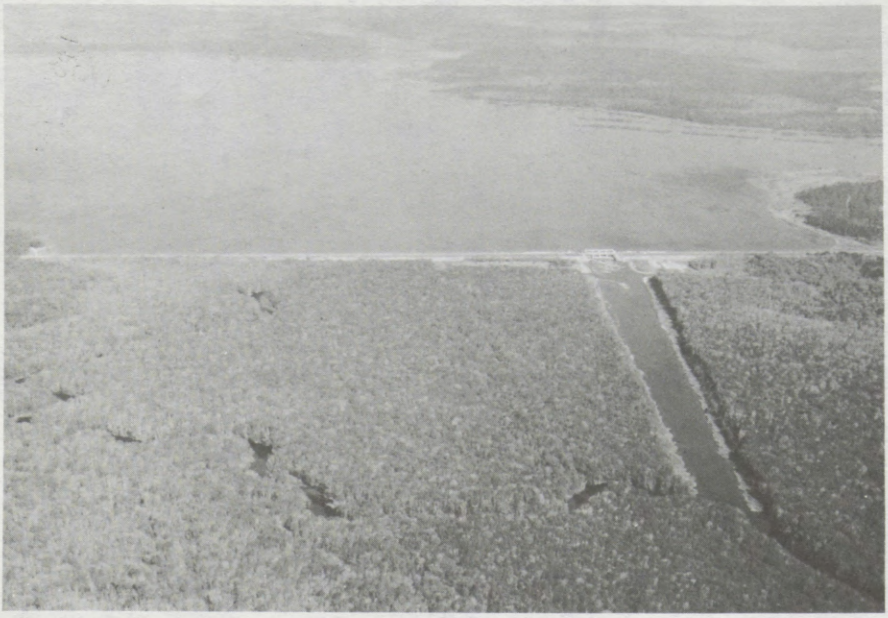
U.S. Highway 17 Bridge Crossing St. Johns River at Palatka (N)



Buckman Lock (S)



Cross Florida Barge Canal Entrance at St. Johns River; Buckman Lock and SR 19 in Background (SW)



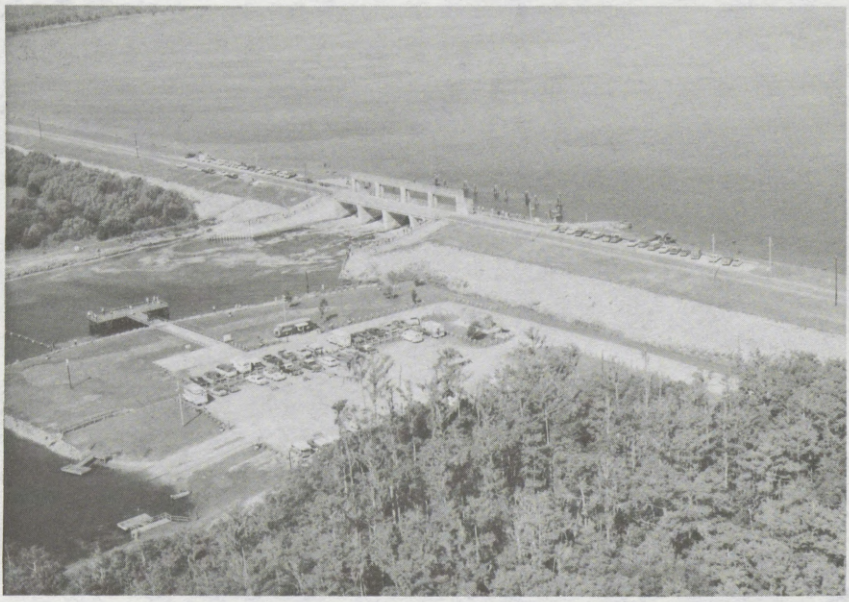
RODMAN DAM AND SPILLWAY



LAKE OCKLAWAHA AND RODMAN DAM (W)



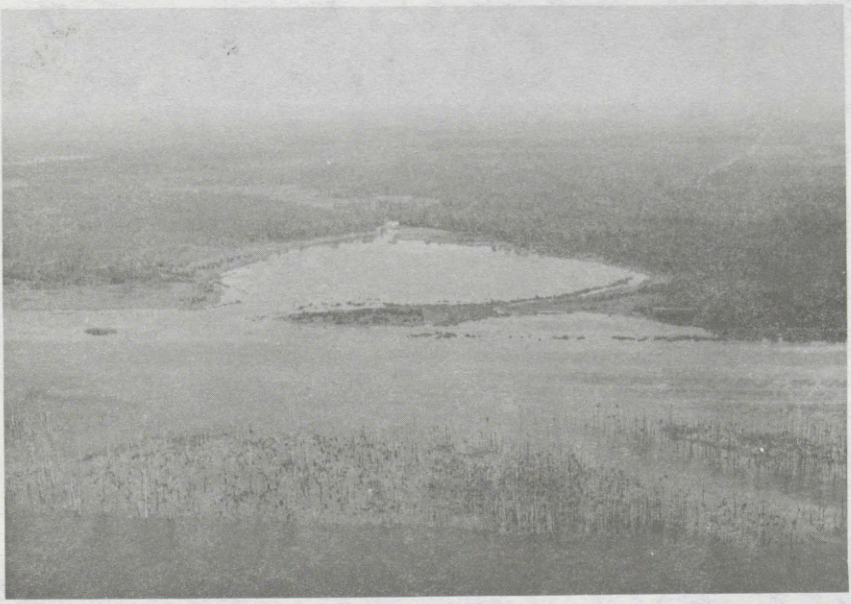
RODMAN BOAT CAMP AND CAMP GROUND (W)



RODMAN DAM, SPILLWAY AND HANDICAPPED PERSONS' FISHING PIER



KENWOOD RECREATION AREA (S)



KENWOOD BAY (N)



LAKE OCKLAWAHA SHORE NEAR TREE PLOT 5 (N)



LAKE OCKLAWAHA NEAR TREE PLOT 5 (N)



Closeup of Orange Springs Boat Ramp (SE)



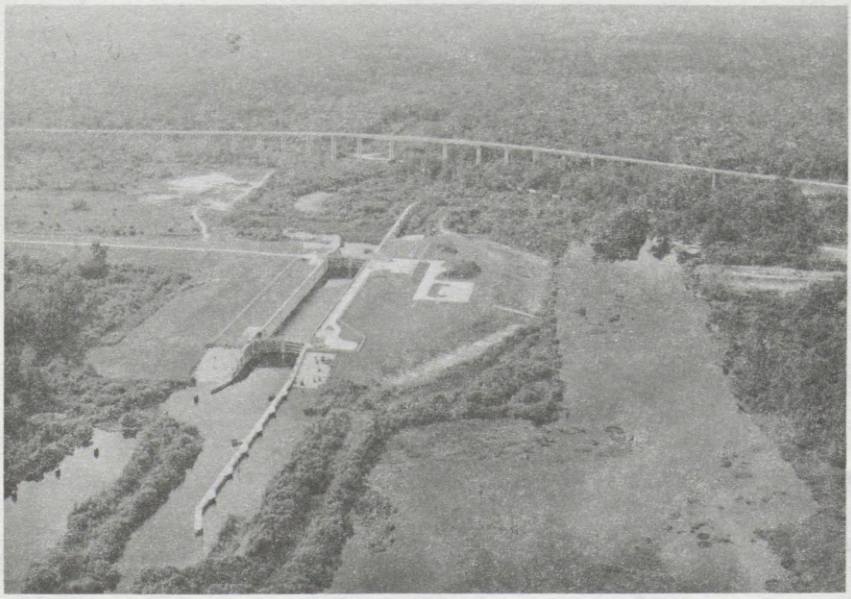
Orange Springs Boat Ramp (NE)



LAKE OCKLAWAHA NEAR ORANGE SPRINGS, FEBRUARY 1977 (NE)



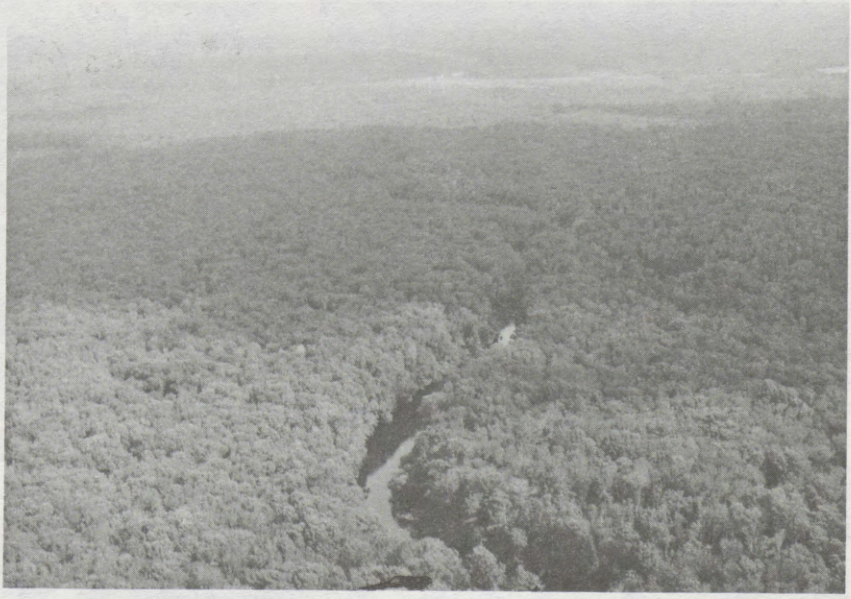
LAKE OCKLAWAHA NEAR ORANGE SPRINGS, OCTOBER 1976 (NE)



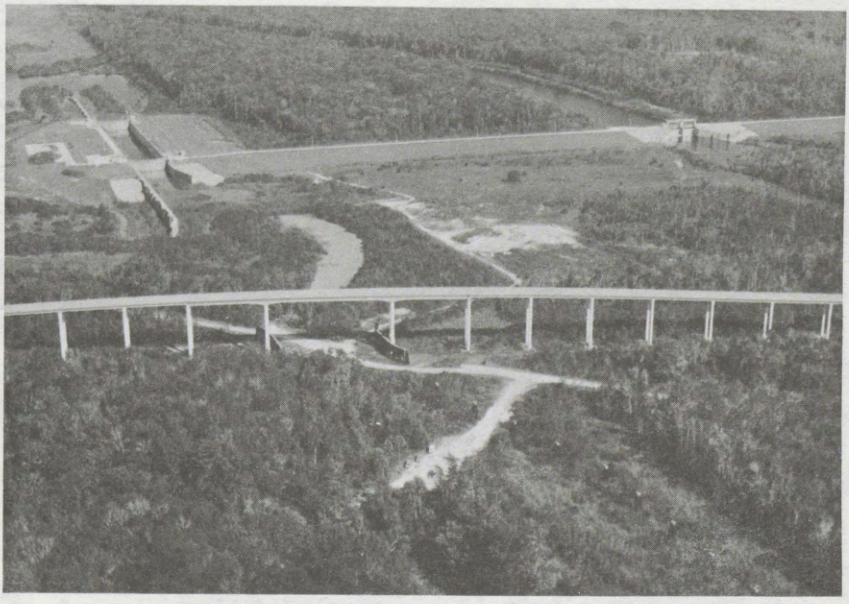
Eureka Lock and SR 316 Bridges



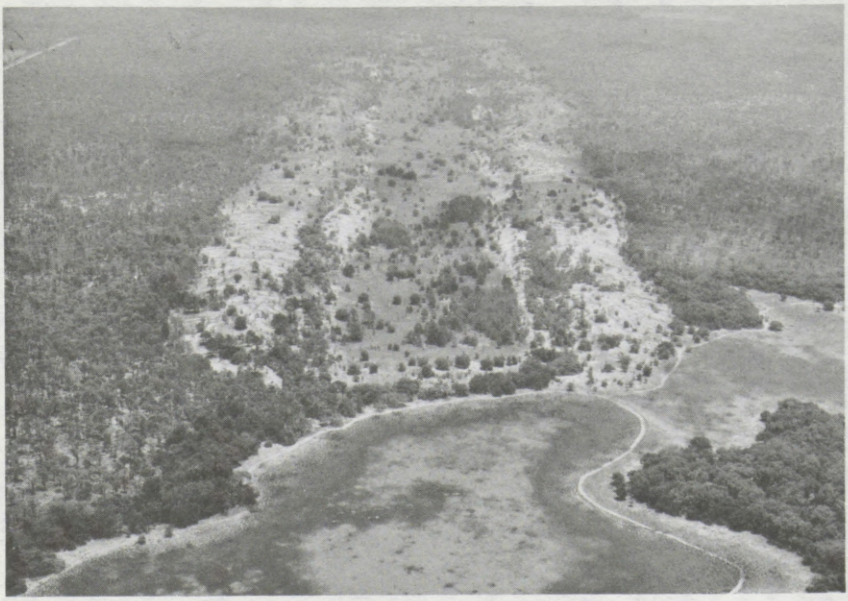
Lake Ocklawaha Near Mile 30 (S)



Ocklawaha River and Upstream of Eureka Lock (in Background) (N)



Eureka Lock and Dam With SR 316 and County Boat Ramp in Foreground (N)



1935 Diggings in Summit Reach Near SR 484 (W)



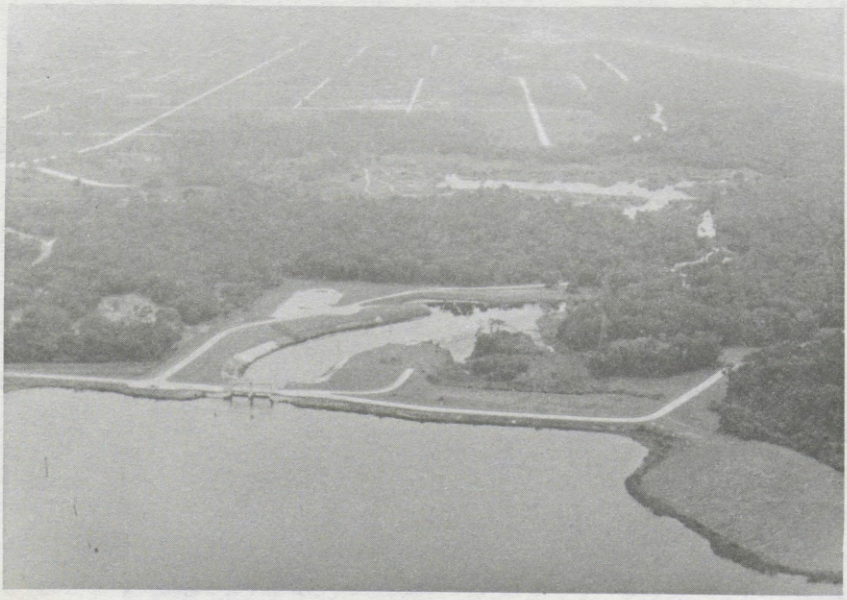
Silver River (NW)



LAKE ROUSSEAU NEAR WEST END (E)



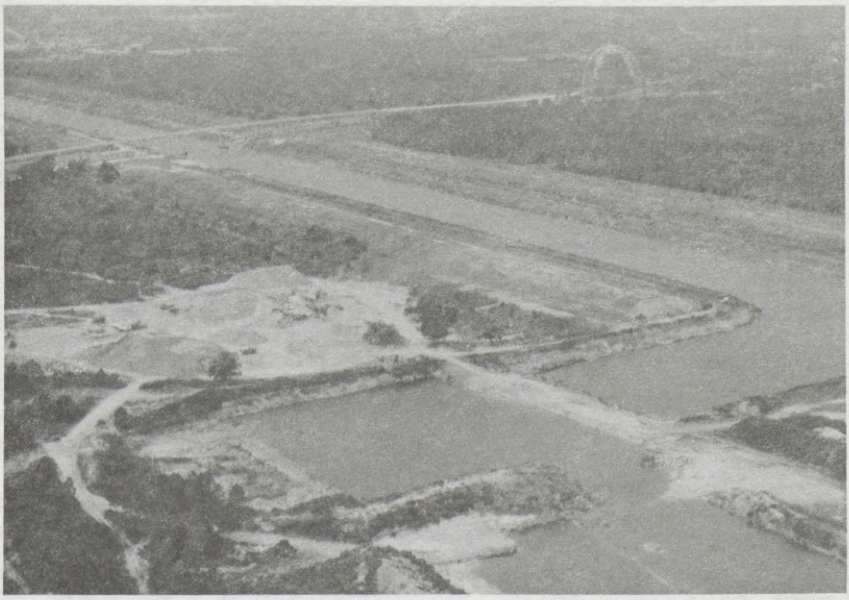
1935 DIGGINGS IN SUMMIT REACH (W)



Inglis Dam and Spillway (W)



Lake Rousseau Near West End (E)



West End of Canal Near U.S. Highway 19, Citrus County Port Development in Foreground (NW)



Inglis Lock and Bypass Spillway (SW)



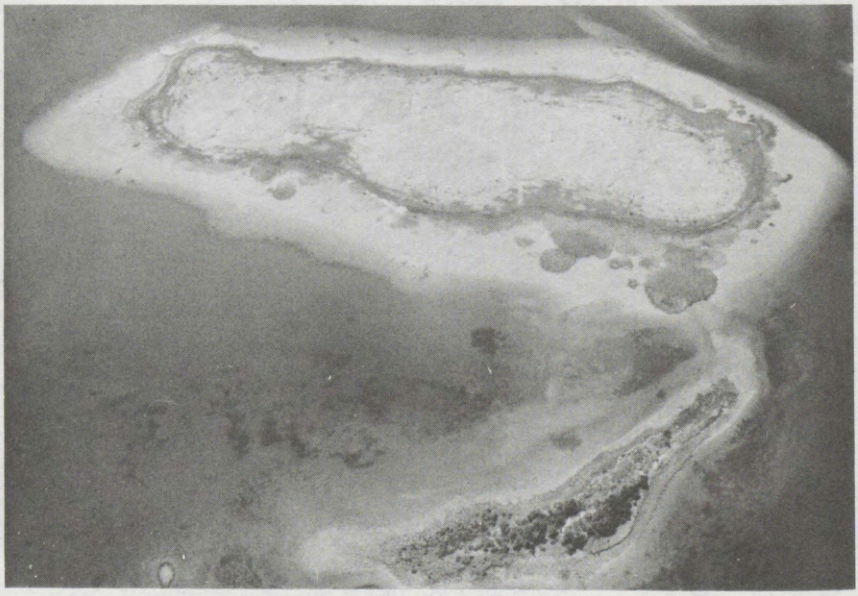
West End of Canal Through the Salt Marsh (N)



Spoil Islands in the Gulf (E)



SPOIL ISLANDS (CLOSE UP)



SPOIL ISLAND (CLOSE UP)

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CROSS FLORIDA BARGE CANAL

Statistical Data

Authorized: Public Law 675, 77th Congress, 23 July 1942
Location: Florida; St. Johns River, Palatka to Gulf of Mexico near Yankeetown
Length: 110 miles
Width: 150 feet minimum
Depth: 12 feet

Structures:	Completed 25 miles	To Be Completed 85 miles
channel		
dams	3	1
reservoirs	3	1
highway bridges	4	7
railroad bridges	0	3
locks	3	2

Lock size: width: 64 feet length: 600 feet

Economic Summary ($000's)

Item	2-7/8 - With Sunk Costs Benefits	Costs	BCR	2-7/8 - Without Sunk Costs Benefits	Costs	BCR
Base	18,428	18,380	1.00	16,810	13,765	1.22
Including Coal Shipments	23,428	18,380	1.27	21,810	13,765	1.58
Including Area Redevelopment (A.R.A)	20,038	18,380	1.09	18,420	13,765	1.34
Including 10% Contingency for Undisclosed Traffic	19,723	18,380	1.07	18,105	13,765	1.32
Including Coal, A.R.A.	25,038	18,380	1.36	23,420	13,765	1.70
Including Coal, A.R.A., 10% Contingency	26,835	18,380	1.46	25,215	13,765	1.83

Sunk Cost: $74,000

Cost Comparison:
Total Project Cost:

July 1970 Estimate (authorized plan)	Current Restudy Estimate (selected plan)	Difference
$193,855	$378,007	$184,152

Source of Difference:

Environmental	$ 40,569
Interest during construction	11,966
Design changes	1,500
Price level increase	130,117
	$184,152

Senator GRAVEL. Our next witness is Professor Barloon. Mr. Barloon, we do want to try to complete the hearing by 12 noon. So if the balance of the witnesses would accommodate us by putting their statements in the record and summarizing, I think it would be most helpful.

STATEMENT OF MARVIN BARLOON, CARLTON PROFESSOR OF ECONOMICS, EMERITUS, CASE WESTERN RESERVE UNIVERSITY, CLEVELAND, OHIO

Mr. BARLOON. Good morning, Mr. Chairman. I am Marvin J. Barloon. I am Carlton professor of economics, emeritus, at Case Western Reserve University in Cleveland, Ohio, where I have been in charge of research and instruction in the economics of transportation for many years.

I appear here today at the request of the Cross-Florida Canal Counties Association, headquartered in Palatka, Fla., to evaluate the economics of the cross-Florida barge canal project in connection with Senate bill 1592 having to do with possible deauthorization of the project.

I have submitted a prepared statement for the record, and ask that it be incorporated in the record.

Senator GRAVEL. It will be incorporated. (See p. 180.)

Mr. BARLOON. If this project is deauthorized it would have to be on some basis other than the economics of the project. There is common belief, and you have heard it said this morning, that the economics of a cross-Florida canal project are marginal.

This statement is based on a serious misunderstanding. Much of the reason for this belief is that the Jacksonville district of the corps in its 1977 report did not present clearly a definitive finding on the ratio benefits to cost, but provided the reader with a kind of smorgasbord under which you can choose which ratio you prefer. I am not talking about the various alinement alternatives but above the variety of interest rates which were reported and a variety of cost-benefit compositions without a clear designation of which one was the right one.

For the information of your staff, Mr. Chairman, the data which appear in the Jacksonville report, February 1977, table 24a, on page 43, and the second column is the right one, showing a ratio of benefits to cost of 1.22 to 1.

Now, I don't want to take the time to review all of these others, some of which seem to be in there mainly for ornamental purposes, Mr. Chairman. I don't understand why on earth they were presented any place.

With regard to the rate of interest, Mr. Chairman, it has been criticized this morning as unrealistic. The U.S. Senate didn't consider it unrealistic in 1974 as a grandfather rate on all projects in the United States which had been authorized prior to 1969.

If that authorized statutory rate is considered a reason for deauthorization of this project, I wonder why the Senate didn't deauthorize the other projects similarly grandfathered under that provision. If the interest rate grandfathered is a reason for deauthorizing this project, it would seem would have been good sense for the U.S.

Senate to include a provision deauthorizing all projects benefited by the grandfathered rate.

I could go on and explain to you why a rate as low as 2⅞ percent in the context of 1978 is considered by a number of economists to be a perfectly valid rate, having to do with expectation of inflation.

As for the expectation of inflation, we would have the support of Mr. Arthur Burns and Mr. Henry Wallich of the Board of Governors of the Federal Reserve, and Professor Herbert Stein, as to the real rate of interest in 1978, which some say is as low as zero.

I consider it irresponsible to regard the rate of interest used in the evaluation as a reason for deauthorization because the statutory provision of the 1974 act provided this grandfathered rate. And if you pick and choose one and deauthorize it, the question arises why were not others similarly deauthorized on the basis of that act.

Second, with regard to the inclusion of sunk costs, these consist of outlays amounting to $73 million for construction prior to the halt of work in 1971, in addition to the $29,916,000 of so-called interest during construction from 1964 to 1977. Both of these represent costs which have been irrevocably incurred, and noncompletion will not recover these outlays. These are costs which represent water over the dam. The resumption of work will not incur these costs and they are irrelevant to the decision of whether or not construction might be resumed.

And in my prepared statement, I have cited four authorities who agree with me on this subject. And I will say, Mr. Chairman, if you were to ask 100 highly qualified economists in the United States today if sunk costs are irrelevant to an investment decision, I would be surprised if at least 99 did not say sunk costs are totally irrelevant and should not be included.

And the same thing with existing benefits derived from completed work. They are not relevant either. But for some reason, the Army Corps of Engineers in their report of 1977 included both sunk costs and existing benefits which will be received by society if this project is completed or not. The existing benefits are irrevelant, as well as the sunk costs and both should be left out.

If, therefore, you take the statutory rate of interest, 2⅞ percent, and if you take out the sunk costs and the existing benefits, you wind up with a benefit/cost ratio of 1.22 to 1.

My time is almost up, and I will say in the remaining minute or two, I do not understand why the movement of bituminous coal was left out of the trasportation benefits.

In their 1977 statement, the corps says explicitly that the movement of coal from western Kentucky to the Jacksonville Electric Authority by water would be almost certain, and I quote those words from this report, and the coal transportation benefits were estimated, after discounting for the future years, at $2 million a year. The corps said that because we cannot be precise as to the exact origin of that coal; we cannot give at a definite value. And, therefore, they left it out altogether.

If the $2 million had been included, the benefit/cost ratio would have been 1.37 to 1. And I would say, therefore, on the basis of these considerations, Mr. Chairman, that the benefit/cost ratio of this project is definitely favorable under the statutory provisions which have applied by enactment of the Senate and the House in 1974 to scores of other

projects throughout the country. And on perfectly sound economic principles, this project is economically sound. If you decide it should be deauthorized, I should think it would be on some basis other than economics.

If you have questions, I would be glad to answer them.

Senator GRAVEL. Thank you, Professor. Our next group will be the environmental panel made up of Dr. Joe Edmisten, Brent Blackwelder, Marjorie Carr, and Dr. John Kaufman.

We will take Mr. Edmisten first.

STATEMENTS OF JOE A. EDMISTEN, ECOLOGICAL CONSULTANT, PENSACOLA, FLA.; BRENT BLACKWELDER, COALITION FOR WATER PROJECT REVIEW, WASHINGTON, D.C.; MARJORIE CARR AND JOHN H. KAUFMAN, FLORIDA DEFENDERS OF THE ENVIRONMENT, GAINESVILLE, FLA.

Mr. EDMISTEN. Good morning. Thank you very much for allowing me to appear and give my testimony in this matter.

My name is Dr. Joe Edmisten. My address is 1117 East Fairfield Drive in Pensacola, Fla.

I have a prepared statement which I will read and be quite brief because of the short time.

I am an environmental scientist. I earned my Ph. D. in ecology at the University of Florida in 1963. My dissertation dealt with the plants, soils, and ecology of flatwoods, one of the major vegetation types of Florida. After receiving my Ph. D., I taught ecology and did environmental research at the University of Georgia from 1963 until 1968.

While at Georgia, I helped develop the first course in ecology which served both the zoology and botany departments. Dr. Eugene Odum and I team-taught that course. During the same time period, I served as an adviser to a congressional ad hoc committee of plants, animals, water quality, sediments and other aspects of its completed portions. I have walked over most of the route including the unfinished sections.

Recently, I have read the reports of the teams that helped prepare the Corps of Engineers environmental impact statement on the canal. I have carefully studied the resulting final environmental impact statement, prepared in February 1977 by the Corps of Engineers.

In addition to my knowledge of the Cross-Florida Barge Canal project, I have tried to stay informed about water projects on a national level. Through my membership in the Water Resources Congress, I have supported a national water policy that would recognize the need for water for a wide spectrum of uses including industry, cities, fish and wildlife, recreation, irrigation and others.

I believe the Cross-Florida Barge Canal has been widely misunderstood for many years. The effects of the canal on the environment have been exaggerated by opponents of the project.

When President Nixon illegally halted construction of the project, his action was based on faulty environmental information. Mr. Nixon was told that the project would destroy the habitat of three endangered species—the eagle, the alligator, and the Florida panther. He was told that connecting the Withlacoochee River on the Gulf of Mexico to

the Oklawaha River, which flows into the Atlantic, would allow the spread of the "dreaded" Asiatic clam.

All these claims proved to be false. Evidence presented in Federal Court in Jacksonville, the court of the late Harvey Johnson, laid aside each of these environmental disaster claims.

In fact, creating Lake Oklawaha—Rodman Reservoir—by impounding the lower part of the Oklawaha River produced a superb eagle and alligator habitat. Lake Oklawaha is the only place that I have ever seen five eagles in the air at once. The lake and shorelines are used by eagles as feeding and breeding sites.

The lake is highly productive of game fish and supports large numbers of ospreys as well as thousands of migratory waterfowl each winter. The alligator population in the impounded portion of the river is far higher than it ever was in the free-flowing river. This shallow, highly productive, marsh-like ecosystem also supports many other reptiles, wading birds of all kinds, and mammals, including otters. The endangered Everglade Kite has been a frequent inhabitant of the lake in recent years.

It is true that the conversion of swamp forest to lake would have been detrimental to any panther populations in the forest. However, there have been no verified sightings of panthers in the swamp forests involved for many years.

The concern over the spread of the Asiatic clam proved to be entirely without foundation. It turns out that the clam was already present in both stream systems. In fact, this small clam has become a normal part of most stream ecosystems in the United States since it was introduced into Oregon streams in the thirties.

The Corps of Engineers Environmental Impact Statement for the Cross-Florida Barge Canal indicates no major adverse environmental impacts associated with the completion of the project. Most of the negative environmental impacts could be lessened by modification of the authorized project.

It is my opinion that the nature and extent of possible adverse environmental impacts of the canal have been greatly exaggerated in the past and are still being exaggerated by those adamantly opposed to the project. I urge you not to deauthorize the Cross-Florida Barge Canal. It is my conviction that the canal, with some modification to preserve the upper reaches of the Oklawaha River, is desirable for both ecologic and economic reasons.

The project has some positive environmental impacts and effects which have been overlooked. An important local and regional effect is the addition of many acres of wetlands. Wetlands, such as lakes, marshes and swamps, are generally held in high regard by ecologists because they are more productive of wildlife than upland ecosystems. Wet ecosystems also serve man by acting as groundwater recharge areas. They help purify water passing through them by acting as physical and biological filters.

While creating more productive wetlands, this canal would provide an important water transportation route. My comparative studies of the various modes of transportation indicate that transportation is the environmentally superior mode for the following reasons:

One, it uses less resources to accomplish the same amount of work.

It creates rather than destroys productive ecosystems that lead to fish and wildlife.

Its rights-of-way are useful for many other purposes in addition to commerce—water storage, fishing, hunting, swimming, boating, et cetera.

It is far safer for man and nature.

It creates less air and noise pollution, and, most importantly, it is the most energy efficient mode of transportation.

In conclusion, I urge you to carefully consider the long-range ecological and transportation needs of our country before you decide whether or not to deauthorize the Cross-Florida Barge Canal. In my opinion, we will be in great need of the canal as we gradually free ourselves of dependence upon foreign oil and start utilizing our vast reserves of coal as our major source of energy.

Thank you. I will now answer any questions, if there are any.

Senator WALLOP [presiding]. I only have one.

A major point was that a cut on the Florida aquifer would impact on the water quality. Do you agree?

Mr. EDMISTEN. No. I have thought of the entire argument for many years. A careful study of the documents at hand indicate that it is a problem about cutting into the top of the limestone area. It does include channels in it. There are holes of various sizes in this limestone, but the position of the canal is in a low—it is a saddle where water goes into this area.

Water would float into the canal through these holes at most places rather than out of it. Only at places where the impoundment raises the water table above the groundwater would there be a tendency to flow outward. So the problem is solvable, and the Corps of Engineers indicates that in their environmental impact statement.

Senator WALLOP. The wildlife wouldn't be accruing additional wildlife benefits by finishing it, would they? The benefits, you say, have essentially been achieved by construction of the lake and other things.

Mr. EDMISTEN. There would be few additional wildlife benefits the creation of an upland canal would not destroy. It would, in addition to what is existing there, be at least a body of water. Not a pristine body of water, but a fishing resource.

The canal along the side from the Eureka area would be an additional body of water for fishing.

Senator WALLOP. Thank you very much.

Brent Blackwelder and Marjorie Carr and Dr. John H. Kaufman.

Senator Gravel will be back in a moment.

I would appreciate it if you could continue on and ask, as we have asked others to do, if you could summarize your statements and submit the entire statement for the record.

Ms. CARR. All right.

STATEMENT OF BRENT BLACKWELDER

Mr. BLACKWELDER. I will go first, Senator Wallop.

My name is Brent Blackwelder, and I am the Washington representative of the Environmental Policy Center. Today I am testifying on behalf of the Coalition for Water Project Review that consists of most all the national conservation organizations.

And we are strongly supporting the legislation to deauthorize the Cross-Florida Barge Canal. Earlier this year the coalition listed this project as one of those across the country that is especially in need of swift deauthorization.

Most of the details and arguments are left up to Marjorie Carr and John Kaufman today, but I did want to emphasize to the committee that there is tremendous consensus on the part of the national conservation organizations that have long looked at this project and feel this is one that is most in need of getting off the books. It has been around a long time.

I might say, in addition to some of the arguments advanced earlier about barge transportation and energy claims, that in the judgment of conservation groups who have worked on this subject, the efficiency of unit transportation and moving bulk commodities is greater than that of waterways. And we have so testified before this committee in connection with hearings.

So we believe when you examine all of the energy questions of barges versus rail, and look at the waterways that have meandering courses—and the comparisons of energy in the past have been based upon erroneous use of rail data—if these facts are taken into account, the two modes appear fairly comparable in efficiency.

[Responses to written questions follow:]

COALITION FOR WATER PROJECT REVIEW

1000 Vermont Avenue, N.W. • Washington, D.C. 20005 • (202) 638-3396

American Forestry Association
American League of Anglers
American Rivers Conservation Council
Citizens Committee on Natural Resources
Conservation Foundation
Defenders of Wildlife
Environment Forum
Environmental Action
Environmental Defense Fund
Environmental Policy Center
Friends of the Earth
Izaak Walton League of America
League of Conservation Voters
National Audubon Society
National Wildlife Federation
Natural Resources Defense Council
Rachel Carson Trust
Sierra Club
The Wilderness Society
Wildlife Management Institute
The Wildlife Society

John Burdick,
Coordinator

August 9, 1978

Senator Mike Gravel, Chairman
Subcommittee on Water Resources
Senate Environment & Public Works Committee
Washington, D.C. 20510

Dear Mr. Chairman:

The Coalition for Water Project Review submits the following replies to the questions you asked at the hearing on S. 3337 concerning deauthorization of the Cross-Florida Barge Canal.

Question 1: S.3337 as introduced by Senator Chiles on Monday of this week essentially combines the provisions of S. 1592 and S.1593 with the exception of authorization of a study of segments of the Oklawaha River as a potential addition to the Wild and Scenic Rivers System. Do you support this exclusion?

Reply: We do support the exclusion for the purpose of obtaining quick action on the deauthorization. We think that ultimately the river should be protected as part of the National Wild and Scenic Rivers System, but there are a number of problems that have to be worked out before this step is taken. Therefore, it is best right now simply to deauthorize the project.

Question 2: The Chief of Engineers has included in his selected noncompletion plan the preservation of Lake Oklawaha. Do you think such preservation is preferable to restoration of that area to its original condition?

Reply: We are against any attempt to keep the Rodman Pool which is called Lake Ocklawaha by supporters of the canal. We believe that the original river valley should be restored. Already the fishery in Rodman Pool has declined, aquatic weeds have spread rapidly, and maintenance costs are soaring. Restoring the river valley would be of much more benefit to wildlife. There is no need to maintain a deteriorating lake right in the midst of an area which already have numerous flatwater lakes.

Question 3: Could you provide for the record your estimate of the severity of the environmental impacts of: a) the selected œmpletion alternative; b) termination of the project and operation and maintenanace of existing works; and c) termination of the project and restoration to natural conditions.

Reply: The most devastating impact would of course occur with completion of the "non-river" selected completion alternative (a). Termination of the project and restoration (c) would be the most desirable alternative because it would protect the Oklawaha Valley and correct the damaging effects which have resulted from damming the river to create Rodman Pool. Termination of the project and maintenance of existing works (b) is better than a) but not as good as (c): it prevents further damage to the Oklawaha but would not address the problems which have resulted from Rodman Pool. The list of damages which would be caused by the selected completion alternative has been well-described in Appendix 11 of the testimony of the Florida Defenders of the Environment on July 26 before the Subcommittee. We concur with the findings of this Appendix.

Question 4: Should the Federal Government acquire and preserve existing canal lands for public use? What would be the environmental impacts, either beneficial or adverse, of such action?

Reply: The Coalition supports Federal acquisition and preservation of some canal lands for public use. Specifically, we feel that the canal lands which border the Ocala National Forest should be acquired. The reason is that the current boundary of the National Forest includes only one-half of the flood plain. For the sake of proper management it makes sense to include all sides of the river valley. We concur with the land transfer proposals included in the restoration plan discussed in the testimony of General McGinnis on July 26, 1978. With respect to other canal lands not bordering the National Forest we think that the State of Florida is in a position to provide protection without federal acquisition.

Please let us know if you have further questions.

Sincerely,

Brent Blackwelder

Brent Blackwelder

STATEMENT OF MARJORIE H. CARR

Ms. CARR. Senator Gravel and Senator Wallop, my name is Marjorie Carr, and I am president of the Florida Defenders of the Environment, which is a statewide, nonprofit conservation group with headquarters in Gainesville, Fla.

And I am particularly happy to speak to you today in support of this bill because I am one of the group of Florida citizens who have been actively working to prevent the construction of the Cross-Florida Barge Canal since November of 1962.

When we first received the great damage in construction to Florida in that it would destroy the Oklawaha River Valley, we thought even at that time that it would bring damage to the water supply in the central part of Florida. And when we first realized that it was not economically justified, 9 years ago a coalition of about 400 specialists in Florida joined together. They were specialists in the field of ecology, economics, hydrology, and formed our group, the Florida Defenders of the Environment.

And for 9 years these specialists have been studying the barge canal project. As we have prepared reports and papers, we have made them available to the press and to government. And we have been vigorously working for 9 years.

One of the things that I think I want to emphasize is that these specialists have all worked for nothing. There have been no consultant fees at all. While sometimes we have enough money to pay their airplane fare, sometimes we don't and then they have to reach into their own pockets.

We have kept in touch with the other conservation and citizen public-interest groups in Florida. So this morning I am representing the Florida Audubon Society, with 35,000 members; the Florida Federation of Garden Clubs, with 30,000 members; the Florida Wildlife Federation, with 40,000 members; the Florida Sierra Club; the League of Women Voters; the Florida State United Auto Workers; the Florida Conservation Foundation; the Florida Wildlife Society.

All of these organizations thoroughly recommend the deauthorization of the Cross-Florida Barge Canal and restoration.

And I am submitting for the record their original letters. In some cases, I think, they have already written to you.

In a few minutes my colleague, Dr. John Kaufmann, will summarize the reasons we believe this is a bad corps project and it should be deauthorized. Before he makes his presentation, I want again to emphasize to you the caliber of the specialists who have studied and reviewed the barge canal problems.

Dr. Kaufmann's statement will cover three areas, economics, ecology, and hydrology. I think it will be helpful to you if you know his remarks relating to these areas are based on the results of indepth studies by such specialists as follows:

Dr. PAUL ROBERTS. I will not bother with their credentials, they are in the record. Dr. Henry Fishkind; Dr. William Vickrey from Columbia; Dr. Robert Haveman, I am sure you have heard of him; Dr. Joseph Carroll from Pennsylvania. I know you are familiar with his work.

In ecology there are many. My husband, Dr. Archie Carr; and Dr. Ariel Lugo; Dr. James Layne; Dr. George Reid; Dr. Samuel Snedaker; and Dr. John Kaufman himself.

In hydrology—and this has many very sensitive areas in the study—Dr. Martin Mifflin, formerly professor of geology at the University of Florida and now a research scientist for the Center for Water Resources; Dr. Ignacio Garcia-Bengochea, hydrologist and senior vice president of the prestigious consulting firm of Black, Crow & Eidsness; Mr. Garald Parker.

Let me emphasize, again, that the work for the FDE has been at no charge.

Let me add that Mr. Parker, who has worked with the aquifers in Florida for more than 30 years, described and named the great Floridian aquifer, the water-bearing rocks through which canal construction was proposed. And Mr. Parker thinks that construction of a canal will threaten the Florida aquifer.

At this time, I would like to introduce to you Dr. John Kaufmann who will briefly state our reasons for urging passage of Senate bill 1592. And at the end of his testimony, we will present to you the appendixes of many of the people I have mentioned.

Dr. Kaufmann?

STATEMENT OF JOHN KAUFMANN

Dr. KAUFMANN. Thank you, Marjorie.

Mr. Chairman, Mr. Wallop, I am John Kaufmann. I am a professor of zoology at the University of Florida at Gainesville. I have been there 15 years. I am chairman of the science advisory committee.

There are so many things wrong with the cross-Florida barge canal that to explain them to you in detail would take us days. So in the next 10 minutes I will summarize for you what we have learned in the past 10 years.

The project fails in three main categories: Economic, ecology, and hydrology.

First, economically. If we accept at face value the corps' benefit/cost calculations for this project, the project would run only 50 to 70 cents a dollar at current interest rates. The true benefit/cost ratio would be worse because the benefits presented by the corps, the economic benefits of this project have been grossly inflated in many ways.

First, the navigation benefits projected by the corps are highly speculative. Over 80 percent of the traffic claimed is future or induced traffic. Traffic is not moving by any mode of transportation. It is ludicrous to assume that all of the traffic will occur and, further, will move on the barge canal. The savings claimed for this speculative, induced move, if indeed it ever occurred at all, have been inflated by the corps to 10 times the figure suggested by the responsible transportation comments that Mrs. Carr mentioned.

And this figure, not surprisingly, is the single biggest item in the transportation package.

Next, the published trade rates for barges and other carriers used by the corps on transportation savings are misleading and are not comparable. The actual cost of transportation modes should have been used instead of published rates.

Furthermore, the transportation savings represent gross savings to shippers, not net savings to the Nation's economy. The resulting losses to competing transportation were ignored. This was pointed out in the economic report, but ignored in the benefit cost calculations. Repeated attempts have been made by canal supporters to boost transportation benefits to predict billions of dollars of coal shipments to the Jacksonville Electric Authority. The Jacksonville Electric Authority uses no coal now, but anticipates using it in the future.

Studies done by the corps and JEA both show that coal for the JEA depending on the point of origin may just as well be shipped by rail. The figure mentioned by Mr. Barloon was from one possible point of origin. However, if you start from other points of origin, just as likely the costs would be cheaper.

There is, therefore, no basis for calculating benefits for coal shipments through the barge canal. Even the inflated benefits do not come close to providing a benefit-cost ratio if recreation benefits were added to make up the difference. These benefits count for 24 percent of the total benefits. But 75 percent of these alleged recreation benefits could be realized by not spending 1 cent for canal construction.

Some of the recreation benefits are questionable, and all of the recreation benefits represent transfers from other local waters, not benefits to the area.

According to the corps' economic reports, sufficient lake-type recreation is currently available in the region of Florida through which the canal would pass. The fishing benefits separate from the recreation benefits represent transfers from other local waters. They have been inflated by assuming no decrease in fishing efforts over the life of the project even though the environmental impact statement points out fishing would inevitably decline.

These are some of the ways in which the benefits have been inflated. The costs of the project have been grossly underestimated in several ways. Contrary to Judge Harry Johnson's order, the corps refuses to assign any value to the esthetic recreational wildlife and fishing and water resources that would be degraded by canal construction.

Some of the costs are certain and could be estimated by the same means the corps uses to estimate the benefits to the project. Other costs such as danger of water pollution are in the category of environmental risk.

The cost of water control in the canal impoundment has been underestimated by $2 million to $4 million annually. The construction is presented as a low sum.

It is pertinent that in recent years four Florida waterway projects have cost about twice what was predicted by the corps in the first place.

The Cross-Florida Barge Canal is simply a very bad economic investment. Even though the canal is a bad investment to the American taxpayers, some people in the immediate area would welcome it if it would have an impact to their economics. We have been told, for example, that the canal would produce 27,000 new jobs, $1 billion boost to the local economy. These claims have been analyzed in detail by economists and branded as frivolous, irresponsible, and totally inaccurate based on a lack of understanding in basic statistics, misreading of study reports, distortion of fact, and faulty computations.

The truth is that the canal study reports show that economics would result in little if any industrial development and creation of relatively few new jobs. No form of economic activity could be found that would be attracted to the canal area. The canal can produce a significant boost to the local economy but only if the land is restored and attracts tourists and recreation.

Mr. Chappell pointed out to you that the Oklawaha River was rejected as a scenic river. It sure was because of the canal's construction going on at the time.

Ecologically——

Senator GRAVEL. I do have a time problem and we have four other witnesses. And I have some questions for you. So I wonder if you could submit the other two areas of your testimony for the record, and I will give you these questions. If you could respond to these questions, they will be included in the record following your testimony.

I do apologize. I would love to hear it all but I have an appointment at 12 noon and I do want to hear the other four parties. So if you don't mind, we will take your statement. I presume it is written?

Mr. KAUFMANN. Yes.

Senator GRAVEL. We will take that and put that in the record. [See p. 195.] And I thank you very much.

Mr. KAUFMANN. Did you want to ask questions now?

Senator GRAVEL. No. We will give them to you and you can respond ing writing. [See p. 260.]

We thank you very much.

Senator GRAVEL. The next group I would like to call also is a panel. And that would be Mr. Allen, Mr. Evans, Mr. Bunton, and Mr. Dean.

I wonder if you would all come forward and take seats at the table. And also, too, if you have prepared statements, I wonder if you could summarize those statements for the record and as briefly as you can try to summarize your statements. The statements will be printed in the record.

Mr. Allen, do you want to lead off first?

STATEMENTS OF D. D. ALLEN, CHAIRMAN, CROSS-FLORIDA CANAL NAVIGATION DISTRICT, JACKSONVILLE, FLA.; GILES EVANS, JACKSONVILLE, FLA.; RAYMOND B. BUNTON, PRESIDENT, FLORIDA WATERWAYS ASSOCIATION, INC., PALATKA, FLA.; H. EDWARD DEAN, VICE PRESIDENT AND GENERAL COUNSEL, TOWNLEY ENGINEERING AND MANUFACTURING CO., CANDLER, FLA., ACCOMPANIED BY J. O. TOWNLEY, PRESIDENT

Mr. ALLEN. Mr. Chairman and members of the committee, I am Dewey D. Allen, chairman of the Cross-Florida Canal Navigation District, and a resident of Inglis, Fla., which is a small community in Levy County, situated on U.S. Highway 19, on the north bank of the Withlacoochee River, and a mile north of the Cross-Florida Barge Canal.

We are about 4 or 5 miles east of the gulf. Until I voluntarily retired last year, I served as mayor of Inglis for 16 years; earlier I was a member of Florida's House of Representatives. I have been a member of the navigation district since March 1966 and its chairman

since May 1971. I have lived in my home, with the Withlacoochee River flowing past my patio and back porch since 1920.

Representing the Cross-Florida Canal Navigation District, and as a private individual, I urge you to reject S. 1592.

This is an ill-conceived bill which might appear to some as rather innocuous. But S. 1592 not only is unwarranted; it also suffers major deficiencies. First, careful review of the corps' reports and environmental impact statement clearly indicates these investigations do not support deauthorization of this project.

Further, S. 1592 completely ignores major legal and fiscal impacts on any such deauthorization. The bill provides nothing to compensate the local interests which have contributed their tax levies toward the project; it does not address funding authorization.

I will keep this brief and to the point.

The Cross-Florida Canal Navigation District is a taxing body, initially created by the Florida Legislature in 1935 to provide rights-of-way acquisition funds and related administrative expenses for the Cross-Florida Canal along Route 13–B.

The district consists of six counties: Duval, Clay, Putnam, Marion, Citrus, and Levy, situated along the canal route between the gulf and the Atlantic. In furtherance of this project, these six counties have contributed $9,340,000 to the navigation district, through annual real estate tax levies imposed through calendar year 1970. As a consequence of these contributions, augmented by legislative appropriations between 1965 and 1969, over 90 percent of rights-of-way was acquired and made available by the time of President Nixon's unconstitutional stop order.

The navigation district, our six counties, and our local citizenry strongly feel that should Congress abrogate the working partnership between local interests and the United States, the counties should be compensated for their contributions, plus compounded interest at 6 percent, and corrected for today's deflated dollars.

In today's dollars, this total compensation amounts to $30 million or so. Equity and justice demand that any measure such as S. 1592 make provision for this reimbursement to local taxpayers. Should you elect to go forward with the objective of S. 1592, we urge you to insure restitution now, rather than through some nebulous future "intended" legislation.

But the citizens of this district, encompassing the immediate environs of the intercoastal waterway link, still want the canal finished as soon as possible.

We are not privy to the precise alternative recommended to the White House by the Secretaries of Army and Agriculture, nor have we been advised of the final White House choice. We are advised that the proposed solution would destroy Lake Oklawaha and much of Rodman Dam as a start.

Careful scrutiny of the corps' report on alternatives indicates that the probable selection will cost somewhere between $16 million and $30 million if all goes well. But current litigation initiated by landowners in Florida courts, seeking repossession of lands taken for canal rights-of-way, almost certainly insures that all will not go well; and that gaining full Federal, or State, control of the Oklawaha Valley will require repeating a land acquisition program at an open ended cost.

These facets, added to the costs already sunk in constructing the existing works, reflect an overall cost to the taxpayer of well over $50 million just to get the valley in a position where the 50- to 75-year "restoration" period can begin.

Certainly S. 1592 should incorporate authorization for these outlays so as to put the whole picture on the table. The administration and its allies apparently are seeking to escape any such comprehensive exposure.

As indicated by Florida Defenders of the Environment representatives, in briefing selected elements of Florida's congressional delegation on April 7, 1978, current strategy is to limit 1978 effort to deauthorization, and to defer destruct and restoration aspects until later—then seek increase in size of Ocala National Forest and utilize acquisition to repay counties.

Intimations that the Oklawaha River might be restored and converted into one of the stream categories under the National Scenic and Wild Rivers Act seem particularly specious and misleading. The stream already has been straightened, dammed, canalized, and cleared in various reaches.

Several studies have considered it, starting back in 1962, when it received priority five out of eight Florida streams examined and was deemed appropriate for State, rather than national, classification.

The U.S. Bureau of Outdoor Recreation recently examined all the major streams of Penninsula Florida and eliminated the Oklawaha from consideration, in its report in August 1975.

The BOR report rejected the Oklawaha because of impoundments, channelizations, and residual segments too short for acceptance. Report placed priority "A" on elements of Peace, Hillsborough, Withlacoochee, Waccasasse, and Suwanee.

During the Tallahassee conference last summer, Bureau of Outdoor Recreation experts acknowledged that the Oklawaha never could qualify for scenic or wild category, but might attain recreation designation were all the structures removed, followed by several decades of revegetation.

While the Oklawaha has lots of bends and turns, it is not a swift stream. The Gazetteer of Florida Streams, Florida Board of Conservation, 1966, gives comprehensive data on characteristics of various streams. The Oklawaha carries one of the smallest gradients in the entire tabulation, .7 feet per mile.

The St. Johns Basin includes: Black Creek, .6 feet; Camp Branch, 1.6 feet; Deep Creek, 2 feet; Dunns Creek, .6 feet; Econlockhatchee River, 1.8 feet; Salt Creek, 3 feet; Salt Spring Creek, .7 feet; Tomoke River, 1.1 feet; Trout River, 4.1 feet; Wekiva River, .9 feet.

Other Florida rivers are: Ichetucknee River, 2 feet; Santa Fe River, 1.9 feet; Suwanee River, 0.5 feet; Withlacoochee River of the North, 2.3 feet; Withlacoochee River, .9 feet; Wekiva River (Levy County), 2.5 feet; Waccasassa River, 2.0 feet. On a measured comparison, therefore, the Oklawaha is one of the slower moving streams in Florida.

The Oklawaha, in fact, closely approximates the standard 1936 low-water surface slope of the Mississippi River between Cairo, Illinois and Donaldsonville, Louisiana. The Mississippi drops 275 feet in 540 miles, or an average gradient of .5 feet per mile. In contrast,

the Little Tennessee River above the Tellico Dam slopes 3 feet per mile. Other nationally noted streams run appreciably higher.

Designation of a stream as an element of the National Scenic and Wild Rivers system entails control and supervision by some prescribed Federal or State agency. These controls almost invariably lead to constraints, followed by eliminating all powered boat traffic. Generally, the next step is to limit the number of individuals on the stream at any one time. Eventually, a reservation system follows.

The Oklawaha has served as an unfettered commercial and pleasure boating artery since before the Seminole Indian wars. Today there are several thousand registered powerboats in the lake and Marion County upper river environs of the Oklawaha River.

The river serves these thousands (as well as other thousands from the St. Johns River Valley) as a fishing and pleasure boating passageway between the Oklawaha headwaters and the St. Johns estuary. A federally authorized navigation project provides a 4½-foot deep channel from the mouth to Leesburg.

Scenic and wild river categorization is completely incompatible with historic and current navigation activities along the Oklawaha; and any such classification will impair the millions of dollars invested in private power boats which utilize the Oklawaha navigation project. These interests cannot be ignored, equitably, in order to cater to the desires of canoe and float devotees.

I'd like to comment briefly about the canal's impact on the lower Withlacoochee River which flows right past my door. I live about 3 or 4 miles down the river from the point where it crosses the canal alinement. The stream flow depends entirely upon discharges from the corps' fresh water bypass around Inglis Lock, plus any groundwater springs along the river bank. The canal construction has not affected our river flow, so far as I can detect, except for the better.

In the best interests of the people most involved, those of us who live along the canal and who have contributed our local tax dollars to meet the local assurances and obligations for this great waterway project, I request you to table S. 1592, and any likeness thereto.

Thank you.

Senator GRAVEL. Whoever is next.

STATEMENT OF J. O. TOWNLEY

Mr. TOWNLEY. I am J. O. Townley, president, Townley Engineering and Manufacturing Co.

And our primary business is manufacturing mine equipment and for mining plants throughout this country and the world. We have the worldwide organization. And our primary concern is industry and the economic value of the canal.

We believe that the economic value of the canal is a very important advantage to our area.

Now, I will just touch on a few of the things that have happened there. Basically, all the residents at the county level are for the canal in the six counties. I would like to say, a larger percentage of the people are for the canal.

We have an unusual situation in Florida that a lot of people don't understand. Industry is not represented and labor is not represented.

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All of the reports have been given by groups other than laboring people and industry. They have not been asked to have an input in this report.

To give you an idea, I was one of the selectees on the White House conference for balanced national growth and economic development.

Certainly if we are to have a balanced economic growth in north-central Florida, we need the canal. I don't think Mr. Chiles or Mr. Stone really understand the industrial part of Florida or the economic part of Florida. Most people think of Florida as a tourist town and some farmers. But I am going to tell you right now, there are a lot of working people hard hit in those areas.

I will give you an illustration what has happened in central Florida. There has been a study made in the State commerce department. And in Marion County, where I live, the per capita income is 74.1 of the national average.

Also, it showed that our youth is leaving the area by droves. Seven out of 10 people that graduate from junior college go elsewhere to get jobs.

Now, we are in a severe economic bad area. And when you realize that this is out of the mainstream of commerce, if that canal was completed and had the energy crisis happened before Nixon stopped the canal, that canal would have been built today and finished.

Most of the people I have talked to who are against the canal don't understand the economics of this country. Industry has made this country great and the most valuable resource with the people with creative ideas. Mr. Chiles walked his way to the Senate. And if we have another energy crisis, we will help him walk out of the State of Florida, of course.

We believe the canal ought to be completed. It has all types of economic advantages. We vitally need those public service jobs in central Florida. And I know we have got retirees that come out of the North and they think Florida is great, and that is one of our major problems.

The retirees come in and they buy homes. They demand tremendous services—roads, sewer, water, hospitals, ambulance, recreation. But we have no tax base in that area.

Now, we are going to wind up with a slump in that area of Florida in 15 or 20 years unless we can get some economic development. And I see this now as a very necessary part of our economic development.

When they talk about moving coal, I can see it as moving coal, iron, raw materials and a lot of light energy which is all we are ever going to get in Florida. We buy a large amount of steel and it costs us more to bring the steel from the Port of Jacksonville to Tampa, Fla., than it does to ship to Jacksonville.

A lot of these things have been brought out. You say why hasn't industry said anything? They are not knowledgeable of us down there. That is why we haven't said anything. I am for the canal, and we should take a look at the economic advantages because we are trying our level best to get more industry. And we are also working, and I think some of our men running for Governor are going to be in favor of the canal. And I think in the end Mr. Chiles and Mr. Stone will turn around on the canal.

Senator GRAVEL. Thank you, Mr. Townley.

STATEMENT OF H. EDWARD DEAN

Mr. DEAN. My name is Ed Dean, and I, too, am against the passage of 1592.

We want to give you a different perspective, Mr. Chairman. That is, from the industry and the locality affected by the canal. Many people have said to you today that the canal will have a marginal economic impact.

This is the basis of that evaluation: And this preta systems socio-economic evaluation was prepared for the Corps of Engineers under funding by the EPA. As a citizen and former chairman of the Marion County Planning Commission, we read and digested this from an industrial perspective. And we came to the conclusion that this report is entirely inaccurate as far as marginal impact is concerned.

The reason is, very briefly, the methodology used by the think tank out of Cambridge, Mass., who came to our area, was to go around and inquire of existing industry in our area and ask them this question: "Would you expand your operations if this canal were completed?" And they extrapolated into the number of jobs to be created.

Industries we have now are agricultural, lumber and wood products and limestone mines. These are the ones they inquired of. These industries responded in the negative, no.

The problem with that thinking is obvious. These industries could exist without the canal. In the interrogatories there were no interrogatories to industries dependent upon transportation of raw materials and supplies into this area because, as Mr. Townley pointed out, we are out of the mainstream of commerce in Florida.

Another fallacy of this particular report was it ignored the present and future energy needs of Florida. And also, the report says conventional industry is not important to the canal region because it basically has retirement and housing construction and recreation.

Senator Gravel, I submit this is also entirely inaccurate because we are on the course of bankruptcy right now in the canal region unless we balance our economy. We have a tremendous problem of delivering services to America's retirees of which we are now the host.

We think the Congress of the United States, as part of the commitment to balanced national growth, needs to look at our area in terms of how to strengthen our local economy. We feel the canal will allow industry to locate in this area, particularly energy-intensive industries, and bring a balanced growth to our area.

We would like to submit this as an industry perspective.

Thank you.

Senator GRAVEL. Thank you.

Mr. EVANS. Mr. Chairman, I am Giles Evans, and speaking as an individual. I have a lengthy statement which was prepared, and I would appreciate putting it in the record.

Senator GRAVEL. It will go in the record.

STATEMENT OF GILES EVANS

Mr. EVANS. The environmental impact statement the corps prepared was the result of a court order directive. This seems to have escaped the general purview of how this came about.

Nixon stopped it; the court said it was unconstitutional and ordered the corps to prepare the EIS. There was a lot of talk about the Florida aquifer and the impact of this waterway on it.

I will leave it with the committee. This is an exact duplicate of what I think is the key exhibit in that 6-week court trial in 1973. This was prepared on the stand under oath and under cross-examination during the 6-week trial.

The question was does the canal have an impact on the aquifer groundwater supplies or surface supplies in north or south Florida, and he said no.

We take 21 counties, and Mr. Faulkner marked in green in here those areas where this project will have no impact of any sort. Mr. Faulkner drew this map.

He wound up with a little banana shape in the middle, 2 to 5 miles. And that is the only place in Florida regardless of what you do transportation-wise.

This was corroborated by—again, under oath—by Dr. Vernon, a geologist, and Dr. Lamoreaux, former head of water resources in the U.S. Geological Survey.

I threw in some statistics on the records of pollution as a result of waterway traffic on the inland waterway system; 1972 to 1975, the Coast Guard reported 47 incidents involving hazardous materials—that is on inland waterways—and in none of those instances was any person hurt. The only time the cargo was lost was a grounding in Alaskan waters, and that is hardly an inland waterway system.

One other thing I would like to touch on is the sunk costs. Not only did the corps use what they said in 1976 was sunk cost, they compounded the error by utilizing an erroneous and far-fetched interest during construction.

For those completed works, which amounted to $70 million, they said we take half of the construction period, which was half of 75 years, and add 14 more years, 1971 to 1985, and added construction on the completed work all during that period. These works are already in being and providing benefits.

And finally, there was a mention of the scenic and wild river potential for the Oklawaha. That seems to be the objective of those who would like to pass this bill. The Oklawaha has been a commercial artery since colonial times, primarily for commerce navigation, up until about the twenties with the new railroads. Since then it has been a recreational power boating artery. The river has been changed in many segments.

There is remainder of about 20 miles in the Eureka stretch, and there is another 10 miles below Lake Oklawaha, and the St. Johns River.

But the Bureau of Outdoor Recreation did a comprehensive report in 1975 considering all the rivers of significance in Florida. I would like to leave a copy of the report with the committee because it doesn't seem to reach the light of day in the interim. It rejects the Oklawaha for a number of reasons.

One last thing are the complications and the cost that can ensue should you adopt or should the Congress enact S. 1592 as amended. The canal authority and the local sponsors have acquired rights-of-way and conveyed working interest to the U.S. Government. Title to the bulk of these lands does not reset in the United States, and not the State. It rests in the local canal authority.

The authority has conveyed it to the corps fee title to those areas to which the structures were built. Half on Lake Oklawaha would revert automatically to the landowner should the project be demolished or otherwise destroyed.

In 1970, the United States condemned the land for recreational sites on that lake. The settlement averaged $600 and $700 an acre, and these are land values of 1970 and not 1978. So, you are looking at a pig in a poke as far as cost is concerned.

To write off this project would almost be like writing off the Tellico Dam project.

Senator GRAVEL. Thank you very much.

STATEMENT OF RAYMOND B. BUNTON

Mr. BUNTON. I am Raymond B. Bunton, president, Florida Waterways Association, Inc., P.O. Box 1766, Palatka, Fla. 32077. I reside in a rural community near Palatka, Fla. Our association is made up of public bodies, port authorities and private industry and business.

Florida Waterways Association has long taken a position that the key to the inland waterways of Florida is the construction of the Cross-Florida Barge Canal. To my personal knowledge, this has been the adopted official position of the association since January 1969, at which time the canal was under active construction.

As you know, the Federal courts have held that this project was illegally halted by President Nixon. Since that time, extensive economic and environmental study has been made of the project. Contrary to the committee's news release of June 1, 1978, which contains the statement:

"The economic justification was marginal and the environmental impact severe," the Corps of Engineers has never to our knowledge determined that any significant environmental damage would be caused by the construction of this canal. As far as the economics are concerned, if all available benefits allowed by the Congress were taken into consideration, this project would have a very high benefit to cost ratio.

Recently there has been announced the construction of two 600 megawatt coal burning powerplants near the eastern end of the canal on the St. Johns River. Not the powerplants discussed earlier by Professor Barloon.

Both plants are scheduled to come on line by 1985 and will burn approximately 9,000 tons of coal per day. Though the plants are planning to construct facilities for receiving coal by unit train, there will be no other competitive form of transportation to move coal to these plants without the Cross-Florida Barge Canal. The significance of this condition is that freight rates will be unencumbered by competition.

Historically, where the competing forms of transportation have been brought together, specifically highway, rail, and water, the growth of industry has been fostered. Rural north Florida, which is not a glamorous tourist-industry area, needs more industry to improve the standard of living of its citizens.

We still believe that this project, once completed, would provide a great incentive to additional industry to locate in this section of

Florida. The project has many other benefits, not the least of which are flood control, recreation, and when required, fresh water supply.

As an aside, some people who oppose the project wonder why we don't play dead. The President of the United States is opposed to it, and the Governor and the cabinet of Florida, although not entirely, and the two Senators from Florida. Well, we don't play dead because we think it is a good project even if we have to oppose these leaders.

Therefore, Florida Waterways Association, Inc., wishes to go on record as opposing S. 1592 and instead recommends that consideration be given to restarting and completing this valuable addition to the Florida waterways inland transportation system.

Senator GRAVEL. Thank you, gentlemen.

And the hearing stands adjourned.

[Whereupon, at 12:25 p.m., the subcommittee recessed, to reconvene subject to the call of the Chair.]

[The bills, S. 1952 and S. 3337, prepared statements and additional material submitted by today's witnesses, and statements submitted by others follow:]

95TH CONGRESS
1ST SESSION

S. 1592

IN THE SENATE OF THE UNITED STATES

MAY 24 (legislative day, MAY 18), 1977

Mr. CHILES (for himself and Mr. STONE) introduced the following bill; which was read twice and referred to the Committee on Environment and Public Works

A BILL

To terminate further construction of the Cross-Florida Barge Canal project.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That authority for further construction of a high-level lock barge canal from the Saint Johns River across Florida to the Gulf of Mexico in accordance with Public Law 675, Seventy-seventh Congress (56 Stat. 703), is hereby terminated.

SEC. 2. The Secretary of the Army, acting through the Chief of Engineers, is authorized to operate and maintain the existing facilities and their appurtenant lands of the

Cross-Florida Barge Canal project as he determines to be necessary, pending further disposition by law of the project and its facilities and lands.

95TH CONGRESS
2D SESSION

S. 3337

IN THE SENATE OF THE UNITED STATES

JULY 24 (legislative day, MAY 17), 1978

Mr. CHILES (for himself and Mr. STONE) introduced the following bill; which was read twice and referred jointly to the Committees on Environment and Public Works and Agriculture, Nutrition, and Forestry

A BILL

To terminate, in the year 1979, further construction of the Cross-Florida Barge Canal project, to adjust the boundary of the Ocala National Forest, Florida, and for other purposes.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That (a), effective July 1, 1979, authority for further construction of a high-level lock barge canal from the Saint Johns River across Florida to the Gulf of Mexico in accordance with Public Law 675, Seventy-seventh Congress (56 Stat. 703), is terminated.

(b) The Secretary of the Army, acting through the Chief of Engineers, is authorized to operate and maintain the

existing facilities and their appurtenant lands of the Cross-Florida Barge Canal project as he determines to be necessary, pending further disposition by law of the project and its facilities and lands.

SEC. 2. (a) The boundary of the Ocala National Forest, Florida, is hereby extended to include the lands north and west of the Oklawaha River as shown on the map dated July 1978, on file with the Chief of the Forest Service, Department of Agriculture, Washington, District of Columbia, and available to the public in the office of the appropriate regional forester, forest supervisor, and forest ranger.

(b) Within the boundary of the Ocala National Forest as extended by subsection (a) of this section, lands owned in fee by the United States and administered by the Corps of Engineers, Department of the Army, are hereby transferred to the Secretary of Agriculture to be administered and made a part of the Ocala National Forest, Florida: *Provided, however*, That the Secretary of the Army, acting through the Chief of Engineers, is authorized to operate and maintain the existing facilities of the Cross-Florida Barge Canal project within the extended boundaries of the Ocala Forest pending further disposition.

(c) (1) The Secretary of Agriculture is authorized and directed to acquire lands held or acquired by the Canal Authority of the State of Florida within the boundary of the

Ocala National Forest, as extended, with donated or appropriated funds, by purchase, gift, or exchange. For acquisition of fee title to lands held or acquired by the Canal Authority of the State of Florida, the Secretary of Agriculture is authorized to pay no less than the purchase price paid by the Canal Authority plus interest compounded annually at the average rate at which the Authority borrowed funds for project acquisition purposes over the total period of financial commitment by the Authority.

(2) There is authorized to be appropriated for the fiscal year ending September 30, 1980, such amount as is necessary to carry out the provisions of this subsection.

STATEMENT

MICHAEL BLUMENFELD

DEPUTY UNDER SECRETARY OF THE ARMY

BEFORE THE

SUBCOMMITTEE ON WATER RESOURCES
COMMITTEE ON ENVIRONMENT AND PUBLIC WORKS
UNITED STATES SENATE

S. 1592

July 26, 1978

NOT FOR PUBLICATION
UNTIL RELEASED BY THE
SENATE COMMITTEE ON
ENVIRONMENT AND PUBLIC WORKS

Mr. Chairman and Members of the Subcommittee, it is a pleasure to appear today to discuss the Cross Florida Barge Canal Project, Florida. With me today are Dr. M. Rupert Cutler, Assistant Secretary for Conservation, Research and Education, Department of Agriculture, and Major General Charles I. McGinnis, Director of Civil Works, Office of the Chief of Engineers, Corps of Engineers. Dr. Cutler has a brief statement describing the Department of Agriculture views and how they have been involved in this project, and MG McGinnis is here to talk in more detail about the studies and recommendations which have led us to this point today.

As you know, construction on the Cross Florida Barge Canal project was started in 1964 and halted by the President in 1971 for environmental reasons. Based on a restudy completed in February 1977, the Chief of Engineers concluded that no further investment in the project was warranted. The President, in his May, 1977, environmental message to Congress, directed the Secretary of the Army and the Secretary of Agriculture, in cooperation with other Federal and State agencies, to make recommendations on alternatives for disposal of canal lands and structures as well as ways to restore the Oklawaha River portion of the project. Following this statement, the Department of the Army

submitted legislation (S. 1592) which would remove authorization for further construction and authorize the Corps of Engineers to operate and maintain lands and facilities pending further disposition by law. The Agriculture Department also proposed legislation which would add the Oklawaha River for study as a Wild and Scenic River and would expand the Ocala National Forest to encompass most of the land along the Oklawaha River that would have been used for the project.

The report directed by the President was completed late last year and presented an array of alternatives for restoration and disposal. In February, 1978, the Secretaries recommended to the President a plan generally characterized as involving an intermediate-level of restoration. The plan would have a first cost of about $26 million at 1977 price levels. The largest share of these costs ($16,600,000) is for acquisition of land within an extended Ocala National Forest boundary. The balance ($9,379,000) is for restoration and disposal of existing project lands and facilities by the Corps of Engineers. I am pleased to announce that the President has approved the recommended restoration and disposal plan, which I will describe briefly, and upon which MG McGinnis can elaborate.

After work on the project was halted in 1971, thorough studies had been made of the economic and environmental consequences of completing construction as opposed to non-completion. The Corps of Engineers held public hearings as part of their study, and had the cooperation of other Federal agencies and the State of Florida, as well as the advice of a Washington-level policy group consisting of representatives of the Department of Interior, Environmental Protection Agency, Department of Agriculture and Council on Environmental Quality. The recommendation which came from this effort, and which was supported by the State of Florida and the Washington-Level Policy Group, was that construction activities should be terminated and that studies should be initiated to determine how best to dispose of canal facilities and lands. The subsequent study of restoration and disposal alternatives also included a determination that the Environmental Impact Statement filed for the Restudy Report is adequate to support the recommended restoration and disposal plan. We have also received the support of the Governor of Florida for the restoration of the Oklawaha River portion of the project.

Mr. Chairman, Dr. Cutler and I would like to furnish to the Committee legislation which we are submitting this week to the Speaker of

the House and the President of the Senate. This legislation would replace the Bill you have under consideration (S. 1592) and the Bill, S. 1593, which provides for study of a portion of the Oklawaha River for its potential as a Wild and Scenic River and for extension of the Ocala National Forest boundary. There is also no need for further consideration of draft legislation submitted by the Secretary of Agriculture on 18 July 1977, which is very similar to S. 1593. Our proposal is that deauthorization legislation is needed now and that the highly complex matter of restoration and disposal will take more time to receive the full consideration of the Congress. Therefore, in this legislative package, we have included, for future enactment, draft legislation which would restore the Lake Oklawaha area and dispose of existing lands and structures, and additional draft legislation to add the Oklawaha River for study as a Wild and Scenic River.

Through this legislative proposal, we are advocating several changes to legislation submitted last year. First, as I just mentioned, we are proposing legislation in two phases. The first phase, which we propose for immediate enactment, would deauthorize the project effective one year from the date of enactment. That would allow the State of Florida time to adopt legislation needed to preserve lands and interest in lands held by the

Canal Authority until their final disposition. The same piece of legislation would also extend the boundaries of the Ocala National Forest along the Oklawaha River and in the Rodman Pool area, and would authorize the Corps of Engineers to operate and maintain existing lands and facilities through FY 1980. This operation and maintenance authority will allow time for the Congress to decide upon the proper restoration and disposal plan. This is very similar to the new bill we understand has just been introduced by the two Senators from Florida.

The Ocala National Forest boundary extension would involve acquisition of 22,600 acres of land held in fee by the Canal Authority, acquisition of 3,000 acres of land for which the Authority holds flowage easements, and transfer of 7,200 acres of land held in fee by the Corps of Engineers. Total land or rights in land acquired or held by the Canal Authority for the Barge Canal project includes 39,173 acres of fee lands and 11,751 acres of flowage easements. The boundary extension and land acquisition would thus involve about 60 percent of Canal Authority fee lands and about 25 percent of their easement lands.

The second phase of our legislative recommendation would provide for disposal of project lands and for study of a key portion of the Oklawaha River for designation as a Wild and Scenic River. The disposal plan would abandon,

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fill or remove existing project channels, locks, dams and spillways and generally return most of the construction areas to near the original ground contours. The restoration plan for Lake Oklawaha includes draining the lake over a period of years, removal of most of the dam and spillway, and provision of assistance as needed for the natural revegetation of the present Rodman Pool area. We propose this legislation for future enactment, after thorough study and discussion by the Congress.

Now, I believe Dr. Cutler has a few words to say on the Department of Agriculture views on the legislative package we are presenting today. Afterwards, MG McGinnis will present to you the basis for the Chief of Engineers' recommendation that activities leading toward completion of a canal should be terminated and a fuller description of the restoration plan recommended by the Secretaries and approved by the President.

DRAFT LEGISLATION SUBMITTED BY MR. BLUMENFELD

A B I L L

To deauthorize the Cross Florida Barge Canal project, and for other purposes

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That the project for a high-level lock barge canal from the Saint Johns River across Florida to the Gulf of Mexico, authorized by Public Law 675, 77th Congress (56 Stat. 703), is deauthorized, effective one year from the date of enactment hereof.

SEC. 2. All its interests in the lands, easements and rights-of-way previously acquired for purposes of the said canal project are retained by the United States; Provided, that all Canal dams, locks, lakes, canals and similar facilities shall continue to be maintained and operated by the Secretary of the Army, acting through the Chief of Engineers, until the end of Fiscal Year 1980.

SEC. 3. The boundary of the Ocala National Forest, Florida, is hereby extended to include the lands north and west of the Oklawaha River as shown on the map designated as the Intermediate Boundary Extension Alternative in Figure No. 6, of the report entitled Alternatives For Restoration of the Oklawaha River Portion of the Cross Florida Barge Canal Project and For Disposition of Other Lands and Facilities Outside the Oklawaha River promulgated in August, 1977, by the U.S. Departments of Agriculture and the Army and by the Florida Department of Natural Resources, and as more specifically prepared by the U.S. Department of Agriculture in a map drawn in July, 1978,

and on file with the Chief of the Forest Service, Department of Agriculture, Washington, D.C., to include acquisition of 32,800 acres of land, at an estimated Federal cost of $16,600,000.

SEC. 4. Within the boundary of the Ocala National Forest as extended by section 3 of this act, lands and improvements owned in fee by the United States and administered by the Corps of Engineers, Department of the Army, shall be transferred to the Secretary of Agriculture, to be administered and made a part of the Ocala National Forest, Florida, when the Secretary of the Army deems said action to be appropriate, but not later than the end of Fiscal Year 1980.

SEC. 5. The Secretary of Agriculture is authorized to acquire title to all lands or interests in lands held by the Canal Authority of the State of Florida, whether in fee or under easement on the date of enactment of this Act, within the boundaries of the Ocala National Forest, as extended by section 3 of this Act. Payment of just compensation for lands and interests in land, not presently owned by the United States, shall be made with funds from the Land and Water Conservation Fund, or other funds available to the Secretary of Agriculture, or by gift, or by exchange of other Government lands, or by the appropriations authorized by this Act, subject to any set-off available to the United States. In any action brought to seek just compensation under this Act, the United States specifically reserves and may assert any set-off, claim, or other right previously acquired by the United States or Canal Authority, against the owner of the land or interest in land which is taken.

SEC. 6. This Act shall affect only the project for a high-level lock barge canal, authorized by P.L. 675, 77th Congress and cited in Section 1 hereof, and shall not affect other authorized projects of the Department of the Army. Specifically, this Act shall not affect the projects for the Oklawaha River, Florida, authorized by the Acts of September 19, 1890; March 2, 1907; June 25, 1910; July 25, 1912; July 27, 1916; and June 26, 1934.

SEC. 7. There is authorized to be appropriated such funds as are necessary to accomplish the purposes of this Act.

A B I L L

To provide for restoration of the Oklawaha River portion of the project and disposition of other lands and facilities outside the Oklawaha River area.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That the authority for the Cross Florida Barge Canal Project having been terminated by the enactment of _____, the Secretary of the Army, acting through the Chief of Engineers and in consultation with the Department of Agriculture, other affected Federal agencies, and the State of Florida Department of Natural Resources, is authorized and directed to restore the Oklawaha River portion of the Cross Florida Barge Canal Project and to dispose of other project lands and facilities generally in accordance with the plan for restoring the Oklawaha River and disposing of project lands and facilities outside the Oklawaha area recommended by the Secretaries of the Army and Agriculture in their joint letter to the President of the United States dated 27 February 1978, at an estimated Federal cost of $9,379,000.

SEC. 2. The Secretary of the Army, acting through the Chief of Engineers, is authorized to operate and maintain the existing facilities and their appurtenant lands of the Cross Florida Barge Canal Project as he determines to be necessary during the restoration of the Oklawaha River portion of the project and disposition of other lands and facilities outside the Oklawaha area provided for in this Act and to carry out these restoration and disposition

actions in such ways and under such conditions and at such times as the Secretary of the Army determines to be prudent, commensurate with the provisions of this Act.

SEC. 3. Subject to any claims which the United States holds against the State of Florida arising from the Cross Florida Barge Canal Project, lands and interests in lands and improvements owned by the United States in the State of Florida and administered by the Corps of Engineers, Department of the Army, for purposes of the Cross Florida Barge Canal Project which have not been transferred to the Secretary of Agriculture pursuant to Section 4 of the Act of _____ cited above, shall be transferred to the State of Florida by the Department of the Army, without further cost to the United States or the State of Florida, for ownership by the State of Florida and at such times as are mutually agreeable to the Secretary of the Army and the Governor of Florida under the provisions of applicable laws of the State of Florida: Provided, that any Federal lands and interests in lands and improvements that have not been accepted by the State of Florida pursuant to the provisions of this section within six years of the date of enactment of this Act may be made available by the Secretary of the Army for disposition as excess Federal property according to the provisions of Federal law in existence at that time.

SEC. 4. There are authorized to be appropriated to the Secretary of the Army such sums as are necessary to carry out the provisions

of this Act. Any sums currently available to the Secretary of the Army for use for the purposes of the Cross Florida Barge Canal Project shall remain available to the Secretary of the Army for the purposes of this Act.

A B I L L

"To authorize study of the Oklawaha River for potential addition to the National Wild and Scenic Rivers System."

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That Section 5(a) of the Act of 2 October 1968 (82 Stat. 910; 16 U.S.C. 1276(a)) is amended by adding the following new subsection:

"(59) Oklawaha, Florida: The segment between the Dead River Swamp downstream to its confluence with the Saint Johns River,"

STATEMENT

CHARLES I. McGINNIS
MAJOR GENERAL, USA
DIRECTOR OF CIVIL WORKS

BEFORE THE

SUBCOMMITTEE ON WATER RESOURCES
COMMITTEE ON ENVIRONMENT AND PUBLIC WORKS
UNITED STATES SENATE

S. 1592

July 26, 1978

NOT FOR PUBLICATION
UNTIL RELEASED BY THE
SENATE COMMITTEE ON
ENVIRONMENT AND PUBLIC WORKS

Mr. Chairman and Members of the Subcommittee, it is a pleasure for me to appear before the Subcommittee today. I will present the basis for the Chief of Engineers' recommendation that construction of the Cross Florida Barge Canal be terminated, and describe the recommended restoration plan in more detail.

Construction Termination

On 24 February 1977, in the Report transmitting the Restudy Report on the Cross Florida Barge Canal, the Chief of Engineers concluded that construction of a barge canal across Florida is feasible from an engineering point of view, and that the project has marginal economic justification. The Chief of Engineers further concluded, however, that the adverse environmental effects of the canal are determinant factors. Specifically, the combined total effect of marginal economic justification and adverse environmental impacts of the canal do not favor its completion.

The Chief of Engineers noted that the overriding expression of public interest in the barge canal across Florida, at that time, appeared to be reflected by the position of the Governor of Florida and the State cabinet: that is, that the canal project should be terminated. With regard to broader national interest in the canal, the Chief also noted that other Federal agencies had expressed opposition based upon environmental considerations, and that final determination of the public interest should rest with Congress.

Accordingly, the Chief of Engineers recommended that Congress authorize and direct the Secretary of the Army, acting through the Chief of Engineers, to terminate all activities leading toward the completion of a barge canal across Florida; undertake a supplemental study in cooperation with the

Department of the Interior, Department of Agriculture, Environmental Protection Agency, and State of Florida to determine the best disposition and use of canal facilities and lands; and operate and maintain completed canal facilities pending congressional action.

The Restoration Plan

In President Carter's environmental message to Congress in May, 1977, the President directed the Secretary of the Army and the Secretary of Agriculture, in cooperation with other Federal and State agencies, to make recommendations to him on alternatives for restoration of the Oklawaha River portion of the project area and on alternatives for disposition of the canal project's facilities and lands outside the Oklawaha River area.

The plan recommended by the Secretaries of Agriculture and the Army, which has been approved by the President, would provide varying levels of restoration in the Oklawaha River portion of the project; and abandonment, preservation, and restoration in the remaining portion. The total estimated cost is $25,970,000, at July 1977 price levels.

The recommended plan would restore the Oklawaha River portion of the project. The plan includes the following actions:

a. Plug and backfill the dug canal connecting the St. Johns River to Lake Ocklawaha.

b. Abandon Buckman Lock.

c. Breach 2000 feet of Rodman Dam to river-bed depth.

d. Remove the spillway and other above ground concrete and other structures, and fill the spillway area.

e. Remove Eureka Lock to natural ground level.

f. Remove a portion of Eureka Dam and fill the spillway and navigation channel.

g. Transfer Corps project fee lands of 7,200 acres to the U.S. Forest Service. The Department of Agriculture would also purchase 25,600 acres of Canal Authority fee and easements lands for the U. S. Forest Service to extend the Ocala National Forest Boundary.

Outside the Oklawaha River area, the plan imcludes:

a. Preservation of Lake Rousseau, with the Corps to relinquish the permit for Inglis Dam and Spillway to the State. The State would operate and maintain the Dam and Spillway and control aquatic growth in Lake Rousseau.

b. Backfill Inglis Lock and bypass spillway, leaving the culverts open for flushing, and convey the site to the State.

c. Remove the plug in the Withlacoochee River, and plug the dug canal west of the river with a fixed-crest spillway and culverts. This would maintain current flood protection for Inglis and Yankeetown.

Mr. Chairman, that concludes my statement. I would be pleased to answer any questions you may have.

STATEMENT OF M. RUPERT CUTLER, ASSISTANT SECRETARY FOR CONSERVATION, RESEARCH AND EDUCATION, U.S. DEPARTMENT OF AGRICULTURE, BEFORE THE SENATE SUBCOMMITTEE ON WATER RESOURCES, RELATING TO S. 1592, TO TERMINATE FURTHER CONSTRUCTION OF THE CROSS-FLORIDA BARGE CANAL PROJECT, ON JULY 26, 1978.

MR. CHAIRMAN AND MEMBERS OF THE COMMITTEE:

The Department of Agriculture is pleased to join with the Department of the Army in support of enactment of legislation to terminate further construction of the Cross-Florida Barge Canal and provide for protection and enhancement of the natural values of the area.

The area under consideration in the proposed legislation is predominately a flood plain which supports an ecologically significant association of plant and animal life. Certainly there have been extensive and highly visible environmental changes brought about by the construction of portions of the canal project. However, much of the segment of river upstream from Lake Oklawaha is natural appearing and the segment downstream from Rodman Dam remains unchanged.

The aspects of the proposed legislation of major importance to the Department of Agriculture are: the extension of the Ocala National Forest boundary; the authority to acquire project related lands; and the study of the Oklawaha as a potential wild and scenic river. The deauthorization of the project, and the disposition of existing facilities and restoration of the lands are integral parts of the previous three.

At present, the river channel of the Oklawaha from Sharps Ferry to the St. Johns River forms the west and north boundary of the Ocala National Forest. (See Map) Extension of this boundary to the west and north of the river, along readily identified manmade or natural features, is necessary

to accomplish acquisition of project lands needed for protection of the river area. Some 32,800 acres of land acquired for the canal project in fee or in easement, would be included within the extended National Forest boundary. These lands if added to the Ocala National Forest would be managed to protect and enhance the Oklawaha River area. The estimated cost to acquire about 25,600 acres of land acquired by the canal authority for project purposes is $16.6 million. The remaining 7,200 acres are held in fee by the Corps of Engineers and would be transferred to the jurisdiction of the Secretary of Agriculture without cost to the United States.

The study of the Oklawaha River as a potential wild and scenic river would include the segment from the Dead River Swamp to the St. Johns River. This river segment is about 47 miles in length. The Oklawaha has long been recognized for its outstanding natural values. In 1963 and 1964, the Departments of Agriculture and the Interior screened and studied several hundred rivers in the Nation for their wild and scenic river values. This study effort was the prelude to the Wild and Scenic Rivers Act of 1968. The preliminary study work on the Oklawaha in 1963 and 1964 showed the river and its immediate area possessed many scenic, historic, archeologic and recreational values. However, no recommendations concerning the river's free-flowing values were made because of the authorized barge canal project. Enactment of the proposed legislation to restore the area would again present the opportunity to take another look at the river to determine if the natural values that still remain meet the criteria for addition to the National Wild and Scenic Rivers System. Although the

authority to study the Oklawaha as a potential wild and scenic river is generally not under the purview of this Committee, the study is largely contingent on enactment of the legislation you are considering. We are hopeful the Committee will favorably consider the legislation we are proposing in order that we and the Department of the Army may start the move to protect and restore this environmentally sensitive river area.

TESTIMONY OF JOSEPH W. LANDERS, JR., SECRETARY
FLORIDA DEPARTMENT OF ENVIRONMENTAL REGULATION
TO THE U. S. SENATE COMMITTEE ON ENVIRONMENT &
PUBLIC WORKS, SUBCOMMITTEE ON WATER RESOURCES

ON S. 1592, A BILL TO TERMINATE FURTHER
CONSTRUCTION OF THE CROSS-FLORIDA BARGE CANAL
PROJECT

JULY 26, 1978

WASHINGTON, D. C.

32-863 O - 78 - 7

MR. CHAIRMAN AND MEMBERS OF THE COMMITTEE:

I AM JOSEPH W. LANDERS, JR., SECRETARY OF THE FLORIDA DEPARTMENT OF ENVIRONMENTAL REGULATION. GOVERNOR REUBIN ASKEW HAS ASKED ME TO PRESENT FLORIDA'S POSITION ON SENATE BILL 1592--A BILL TO TERMINATE FURTHER CONSTRUCTION OF THE CROSS FLORIDA BARGE CANAL.

THE STATE OF FLORIDA SUPPORTS PASSAGE OF SENATE BILL 1592, BUT ONLY WITH AMENDMENTS THAT WOULD: (1) CHANGE THE EFFECTIVE DATE OF THE BILL TO JULY 1, 1979, THUS ALLOWING THE FLORIDA LEGISLATURE TO ACT ON DISPOSITION OF THE CANAL LANDS; (2) MOVE SECTIONS 2 AND 3 FROM SENATE BILL 1593 INTO SENATE BILL 1592, INCREASING THE BOUNDARIES OF THE OCALA NATIONAL FOREST TO INCLUDE THE OKLAWAHA RIVER; (3) CHANGE THE DATE IN SECTION 2 OF S. 1592 TO JULY 78 TO UPDATE THE MAP; AND (4) INCORPORATE SECTION 4 OF S. 1593 INTO S. 1592, ALLOWING THE SECRETARY OF AGRICULTURE TO PURCHASE CERTAIN LANDS HELD BY THE CROSS FLORIDA BARGE CANAL AUTHORITY. SENATORS CHILES AND STONE SUPPORT THESE AMENDMENTS AND ARE INCORPORATING THEM INTO A NEW BILL WHICH IS CURRENTLY BEING DRAFTED. IT IS ALSO HOPED THAT THE ADMINISTRATION WILL SUPPORT THESE AMENDMENTS.

I UNDERSTAND IT IS NOT WITHIN THE JURISDICTION OF THIS COMMITTEE TO DISCUSS THE NEW AMENDMENTS, HOWEVER, I WANT TO EMPHASIZE THE GREAT IMPORTANCE THE STATE PLACES UPON THEM. THE STATE BELIEVES THE AMENDMENTS ARE NECESSARY TO INSURE THAT THE AFFECTED LANDS ARE PROPERLY PROTECTED AND THAT THE COUNTIES RECEIVE EQUITABLE TREATMENT.

I REALIZE THAT THE PURPOSE OF THIS HEARING IS TO DISCUSS THE DEAUTHORIZATION BILL SO I WILL ADDRESS MY PRINCIPAL COMMENTS TO THAT ISSUE. HOWEVER, I, ALONG WITH MR. KEN TUCKER, ASSISTANT ATTORNEY GENERAL FOR THE STATE OF FLORIDA, WOULD BE PLEASED TO ANSWER ANY QUESTIONS ON THE PROPOSED AMENDMENTS AT YOUR PLEASURE.

ON DECEMBER 17, 1976, AFTER TWO DAYS OF PUBLIC HEARINGS, THE GOVERNOR AND CABINET VOTED AGAINST COMPLETION OF THE BARGE CANAL. (I HAVE APPENDED THEIR RESOLUTION AND THE TRANSCRIPTS OF THE HEARINGS TO MY TESTIMONY). I WOULD LIKE TO PREFACE ANY FURTHER COMMENTS WITH A FEW WORDS OF EXPLANATION ABOUT FLORIDA'S CABINET SYSTEM AND THE SIGNIFICANCE OF THEIR VOTE.

THE CABINET IS COMPOSED OF SIX STATEWIDE ELECTED OFFICERS WHO REPRESENT THE INTERESTS OF THE CITIZENS OF FLORIDA IN AGRICULTURE, BANKING, EDUCATION, INSURANCE, LAW AND PROTOCOL. WITH THE GOVERNOR AS CHAIRMAN, THESE OFFICERS COLLECTIVELY SIT AS THE EXECUTIVE BOARD OF VARIOUS STATE AGENCIES. IN THE CASE OF THE CROSS FLORIDA BARGE CANAL, THE GOVERNOR AND CABINET--AS HEAD OF THE DEPARTMENT OF NATURAL RESOURCES--WERE THE ORIGINAL STATE SPONSORS OF THE CANAL.

THEIR DECISION TO ASK CONGRESS TO DEAUTHORIZE THE BARGE CANAL CAME AFTER A THOROUGH REEXAMINATION AND EVALUATION OF THE LATEST ECONOMIC AND ENVIRONMENTAL INFORMATION.

DURING THE TWO DAYS OF SPECIAL HEARINGS, THE GOVERNOR AND CABINET LISTENED TO MORE THAN 150 PERSONS. SPEAKING TO THEM WERE LABOR LEADERS; ENVIRONMENTALISTS; ENGINEERS; ECONOMISTS; BUSINESSMEN; LOCAL, STATE AND FEDERAL OFFICIALS--BOTH APPOINTED AND ELECTED--; AND HOUSEWIVES AND HIGH SCHOOL STUDENTS.

I DO NOT THINK THAT ANYONE WHO ATTENDED THESE HEARINGS--WHETHER FOR OR AGAINST THE CANAL--COULD CHARACTERIZE THEM AS ONE-SIDED OR UNFAIR. THE TESTIMONY OF PROPONENTS AND OPPONENTS OF THE CANAL WAS GIVEN EQUAL TIME AND CONSIDERATION.

TESTIMONY PRESENTED BY THE FLORIDA DEPARTMENTS OF ENVIRONMENTAL REGULATION, NATURAL RESOURCES, AND ADMINISTRATION SUPPORTED THE GOVERNOR AND CABINET'S POSITION TO ASK FOR CONGRESSIONAL DEAUTHORIZATION OF THE CANAL. EXPERT TESTIMONY BY THE ENVIRONMENTAL PROTECTION AGENCY, U.S. FISH AND WILDLIFE SERVICE, AND THE U.S. FOREST SERVICE ALSO SUPPORTED THE STATE'S POSITION.

FROM THAT TESTIMONY, LET ME SUMMARIZE SOME OF THE MOST SIGNIFICANT ENVIRONMENTAL AND ECONOMIC REASONS AGAINST FURTHER CONSTRUCTION OF THE CANAL.

FIRST - A CUT OF ANY LENGTH THROUGH THE FLORIDAN AQUIFER WOULD ADVERSELY AFFECT WATER QUALITY. EXPOSING THE AQUIFER TO POLLUTANTS BY CONSTRUCTING A CANAL THROUGH IT IS OF MAJOR CONCERN TO THE STATE OF FLORIDA.

THE FLORIDAN AQUIFER IS ONE OF THE MOST PRODUCTIVE SOURCES OF GROUNDWATER IN THE WORLD. IN FLORIDA, MOST RESIDENTS AND VISITORS OBTAIN THEIR DRINKING WATER SUPPLIES DIRECTLY OR INDIRECTLY FROM THIS VAST UNDERGROUND SOURCE. THE CANAL WOULD CUT DIRECTLY INTO THIS POROUS LIMESTONE AQUIFER.

IF THE CANAL WAS CONSTRUCTED AS PLANNED, SOME 45 MILLION GALLONS OF GROUNDWATER EACH DAY WOULD FLOW DIRECTLY FROM THE AQUIFER AND THROUGH THE CANAL'S "SUMMIT REACH CUT."

CONSTRUCTION ACTIVITIES--BLASTING, DREDGING AND THE LIKE--WOULD CAUSE TURBIDITY IN THE AQUIFER. THIS IN TURN WOULD CLOUD LOCAL WATER SUPPLIES AS WELL AS IMPORTANT NEARBY STATE TOURIST ATTRACTIONS SUCH AS SILVER SPRINGS.

AFTER CONSTRUCTION, ROUTINE SHIPPING OPERATIONS COULD LEAD TO CONTINUED GROUNDWATER QUALITY PROBLEMS. THE OPERATION OF VESSELS THROUGH THE CANAL WOULD INTRODUCE OILS, GREASES, AND OTHER WASTES INTO CANAL WATERS AND, FROM THERE, INTO THE AQUIFER.

ANY TRAFFIC PASSING THROUGH THE BUILT-IN SYSTEM OF LOCKS WOULD INTRODUCE STILL MORE CONTAMINANTS. THE WATER SOURCES FOR THE LOCKS COME FROM THE OKLAWAHA AND WITHLACOOCHEE RIVERS; BOTH RIVERS CONTAIN WATERS WITH A MUCH HIGHER COLIFORM BACTERIA COUNT THAN THE FLORIDAN AQUIFER. AT A MAXIMUM, SOME 475 MILLION GALLONS OF LOWER QUALITY RIVER WATER WOULD BE BACKPUMPED EACH DAY TO OPERATE THE LOCKING SYSTEM. ONCE IN THE CANAL, THIS WATER WOULD PENETRATE THE POROUS LIMESTONE OF THE FLORIDAN AQUIFER.

EVEN NOW, WATER QUALITY IN THOSE PARTS OF THE CANAL WHICH HAVE BEEN COMPLETED DOES NOT MEET THE STATE STANDARD FOR CLASS III (RECREATIONAL) WATERS. ANOTHER CONCERN IN THE AREA OF WATER QUALITY IS THE SURFACE WATER IMPOUNDMENTS, WHICH TODAY VIOLATE STATE STANDARDS FOR CLASS III, OR RECREATIONAL WATERS. THESE IMPOUNDMENTS--LAKE ROUSSEAU AND RODMAN RESERVOIR--ARE ALMOST ENTIRELY FILLED WITH HYDRILLA, WHICH IS A SUBMERGED AQUATIC PLANT. THEIR SURFACES ARE ALMOST COMPLETELY COVERED WITH THE TOPPED OUT GROWTH OF HYDRILLA AND WITH EMERGENT WATER HYACINTHS.

APPROXIMATELY 85 PERCENT OF THE SURFACE OF LAKE ROUSSEAU IS COVERED WITH THESE NOXIOUS EXOTIC PLANTS, AND 90 PERCENT OF RODMAN'S SURFACE IS IN THE SAME SHAPE. YOU CAN ONLY NAVIGATE IN CERTAIN AREAS DUE TO THE IMPENETRABLE WEEDS; WATER SPORTS SUCH AS SKIING AND PLEASURE BOATING ARE NEARLY IMPOSSIBLE.

WHILE FISHING IS GOOD AT FIRST IN IMPOUNDMENTS, IT DECLINES OVER THE YEARS DUE TO AQUATIC WEEDS AND THEIR DECAY. THIS CAUSES THE DISSOLVED OXYGEN LEVELS IN THE WATER TO GO DOWN, THEN YOU END UP WITH LESS GAME FISH. ROUGH FISH, SUCH AS GAR, SHAD AND CARP, BECOME THE DOMINANT SPECIES.

ONE OF FLORIDA'S STANDARDS FOR TESTING WATERS IS THE DISSOLVED OXYGEN LEVEL. IN 33 PERCENT OF OUR TEST SAMPLES, RODMAN RESERVOIR VIOLATED STANDARDS FOR CLASS III WATERS; LAKE ROUSSEAU'S SAMPLES EXCEEDED STATE STANDARDS 19 PERCENT OF THE TIME. (THESE

RESULTS, HOWEVER, DO NOT REFLECT TODAY'S SITUATION WITH THESE BODIES OF WATER, AS THEY HAVE BOTH EXPERIENCED CONSIDERABLE WEED GROWTH SINCE THE STATISTICS WERE CALCULATED NEARLY TWO YEARS AGO).

CONTROLLING AQUATIC WEEDS CAN BE ACCOMPLISHED BY FOUR MEANS: MECHANICAL, CHEMICAL, BIOLOGICAL, AND THROUGH WATER FLUCTUATION. AN ENVIRONMENTALLY-SOUND MEANS OF BIOLOGICAL CONTROL HAS YET TO BE FOUND; MECHANICAL CONTROL WITHIN THE CANAL'S WATERS IS IMPRACTICAL AND CHEMICAL CONTROL IS EXPENSIVE AND REQUIRES MULTI-TREATMENTS.

WATER FLUCTUATION, WHICH IS PERHAPS THE BEST MEANS OF CHECKING AQUATIC PLANT GROWTH, IS OFTEN NOT PRACTICAL OR FEASIBLE SIMPLY BECAUSE A GIVEN BODY OF WATER DOES NOT HAVE THE NECESSARY PHYSICAL REQUIREMENTS FOR SUCH TREATMENT. THE CANAL--WITH ITS REQUIRED WATER DEPTHS FOR NAVIGATION--FALLS INTO THE REALM OF THE IMPRACTICAL.

OF GREATEST CONCERN, HOWEVER, IS THE LIKELIHOOD OF ACCIDENTAL SPILLS.

IN TESTIMONY BEFORE THE GOVERNOR AND CABINET, PARTIES ADMITTED THAT SPILLS ARE INEVITABLE. THE STATE IS EXTREMELY CONCERNED OVER THE IMPACT OF EVEN <u>ONE</u> SPILL OF SOME TOXIC SUBSTANCE INTO THE WATERS OF THE CANAL AND FROM THERE INTO THE FLORIDAN AQUIFER. INTRODUCTION OF A TOXIC SUBSTANCE INTO THE AQUIFER WOULD SERIOUSLY THREATEN DRINKING WATER SUPPLIES AND PUBLIC HEALTH. IT IS NOT WORTH THE RISK.

WE DO NOT EVEN KNOW WHAT KINDS OF CHEMICALS WOULD BE TRANSPORTED THROUGH THE CANAL. THIS INFORMATION HAS NOT BEEN MADE AVAILABLE, EITHER FROM THE CORPS OF ENGINEERS OR FROM SHIPPERS WHO CLAIM AN INTEREST IN USING THE CROSS FLORIDA BARGE CANAL. NOR HAS THE CORPS PROVIDED THE STATE WITH A MODEL DESCRIBING THE DISPERSION AND EFFECTS OF SUCH SPILLS.

MOST SUBSTANCES HAVE SOME DEGREE OF SOLUBILITY. NO CONCEIVABLE CLEANUP OPERATION COULD REMOVE ALL THESE SUBSTANCES FROM THE CANAL OR FROM THE GROUNDWATERS.

ALSO OF VITAL ENVIRONMENTAL CONCERN ARE THE PROBLEMS THE CANAL PRESENTS IN WATER QUANTITY.

CONSTRUCTION OF THE CANAL WOULD NOT, AS SOME SAY, CREATE A RESERVOIR OF FRESH WATER WHICH WOULD INCREASE THE AMOUNT OF DRINKING WATER AVAILABLE TO THE STATE. THE CANAL WOULD BECOME A LARGE CONSUMPTIVE USER AND PREEMPT OTHER FUTURE USERS.

ESTIMATES OF THE NET CONSUMPTIVE USE OF WATER RANGE FROM 12 TO 42 MILLION GALLONS A DAY (MGD). THIS RANGE OF ESTIMATES PRIMARILY DEPENDS ON THE CANAL ALIGNMENT CHOSEN, AND ALSO UPON THE AGENCY MAKING THE ESTIMATE. PUTTING THOSE FIGURES INTO PERSPECTIVE, WHAT WE ARE TALKING ABOUT WITH AN ESTIMATE OF 12 MGD'S IS THE DAILY DEMAND FOR A CITY OF 150,000 PERSONS. AN ESTIMATE OF 42 MGD'S REPRESENTS MORE THAN 25 PERCENT OF THE MUNICIPAL DEMANDS FOR THE ENTIRE TAMPA BAY AREA--ONE OF FLORIDA'S LARGEST POPULATION CENTERS.

THESE LOSSES REPRESENT ONLY THE DIFFERENCE BETWEEN EVAPOTRANSPIRATIONAL LOSSES AFTER CANAL CONSTRUCTION AND THE LOSSES FROM NATURAL CONDITIONS BEFORE CONSTRUCTION.

LOSSES FROM POLLUTION OF DRINKING WATER SUPPLIES AND LOSSES TO LEAKAGE UNDER LOCKS AND DAMS WOULD BE ADDITIONAL, AND ARE DIFFICULT TO CALCULATE AT THIS POINT.

LOSSES TO FUTURE USERS SHOULD ALSO BE CONSIDERED. NORMAL CANAL OPERATIONS WOULD REQUIRE A 12-FOOT DRAFT. SINCE THE BOTTOM OF THE CANAL IN THE SUMMIT REACH WOULD BE SOME 31 FEET ABOVE MEAN SEA LEVEL, A POOL STAGE OF 43 FEET WOULD BE REQUIRED. THE LEVEL OF GROUNDWATER--THE PIEZOMETRIC SURFACE OF THE AQUIFER--IN THAT REGION AVERAGES ONLY 44 FEET.

THE NEED FOR MAINTAINING A 12 FEET DRAFT IN THE CHANNEL LEAVES VERY LITTLE ROOM FOR FURTHER WITHDRAWALS WHICH WOULD LOWER THE PIEZOMETRIC SURFACE.

COMPLETION OF THE CANAL, AND THE INEVITABLE RESTRICTION ON DRAWDOWNS, WOULD PREEMPT MOST FUTURE GROUNDWATER USES IN THE REGION, AND THUS AFFECT POTENTIAL DEVELOPMENT FOR THIS FAST GROWING AREA.

CLOSELY RELATED TO THE WATER QUANTITY ISSUES ARE THE COMPLEXITIES INVOLVED WITH THE ACTUAL CONSTRUCTION THROUGH THE AQUIFER REGION. THE ENGINEERING THERE WILL NECESSARILY INVOLVE GROUTING--THAT IS, SEALING THE NATURALLY OCCURRING HOLES IN THE POROUS LIMESTONE.

IT WAS HIGHLY QUESTIONABLE IN THE MINDS OF THE GOVERNOR AND CABINET THAT SUFFICIENT FUNDS HAD BEEN ALLOCATED TO PROVIDE FOR GROUTING. THE HIGH PRODUCTIVITY OF THE FLORIDAN AQUIFER IS LARGELY DUE TO THE POROUS STRUCTURE AND SOLUTION FEATURES IN THE LIMESTONE WHICH FORM IT. THERE IS NO DOUBT THAT IF THE CANAL IS COMPLETED, A NUMBER OF THESE PORES IN THE ROCK--LARGE AND SMALL--WILL HAVE TO BE DEALT WITH.

INFORMATION AVAILABLE ON THE ENGINEERING ASSOCIATED WITH CONSTRUCTION OF THE CANAL CONTAINS INADEQUATE DETAIL ON THE KINDS OF GEOLOGICAL FEATURES THAT WOULD BE GROUTED, OR UNDER WHAT CONDITIONS THEY WOULD BE GROUTED--IF AT ALL. THERE IS SOME QUESTION WHETHER SOME OF THESE FEATURES COULD BE GROUTED.

SINCE A 28-MILE REACH OF THE CANAL WOULD BE EXCAVATED THROUGH THE FLORIDAN AQUIFER, THE PLANS FOR GROUTING, WHICH ARE OF EXTREME IMPORTANCE TO THE STATE, HAVE BEEN INADEQUATELY ADDRESSED.

THE FINAL AREA OF MAJOR CONCERN TO THE STATE IS THAT OF THE ECONOMICS OF THE CANAL.

IN THE FINAL ENVIRONMENTAL IMPACT STATEMENT PREPARED BY THE CORPS, THE HIGHEST BENEFIT COST (B/C) RATIO OF THE CONSTRUCTION ALTERNATIVES WAS 1.07. IN OTHER WORDS, THE CORPS EXPECTS A RETURN OF $1.07 FOR EACH $1.00 INVESTED OVER THE LIFE OF THE PROJECT. THIS RATIO, THOUGH MARGINAL, IS AN ACCEPTABLE RETURN IF TAKEN AT FACE VALUE. THE COST TO COMPLETE THE CANAL WOULD BE OVER 300 MILLION DOLLARS, ON TOP OF NEARLY 70 MILLION DOLLARS SPENT ON PREVIOUS CONSTRUCTION.

A CAREFUL EVALUATION OF THE CORPS' ECONOMIC REPORT, HOWEVER, SHOWS THAT RATIO TO BE INFLATED.

FIRST, THE PROJECT WAS EVALUATED BY THE CORPS AT A 2 AND 7/8 PERCENT INTEREST RATE. ALTHOUGH LEGALLY APPROPRIATE, THIS INTEREST RATE IS FAR BELOW RATES CONSIDERED ACCEPTABLE BY MOST ECONOMISTS FOR WATER RESOURCES PROJECTS. THE RATE FOR PROJECTS EVALUATED IN 1977 WAS 6 AND 3/8 PERCENT, AND THE RATE RECOMMENDED

BY THE WATER RESOURCE COUNCIL'S PRINCIPLES AND STANDARDS IS 6 AND 7/8 PERCENT. IF EVALUATED AT THESE RATES, THE MOST FAVORABLE CANAL CONSTRUCTION ALTERNATIVE HAS A B/C RATIO OF ONLY .69 AND .63 RESPECTIVELY.

ADDITIONALLY, THE CORPS CALCULATIONS OF COSTS AND BENEFITS HAD SOME NOTABLE PROBLEM AREAS:

1) TRANSPORTATION DATA WERE NOT AVAILABLE FOR EVALUATORS TO ANALYZE. IN THE FIGURES THAT WERE RELEASED, SEVERAL GROWTH RATES OF COMMODITY MOVEMENTS WERE QUESTIONABLE. THE CORPS INCREASED THE INDUCED TRANSPORTATION BENEFITS BY 3.5 MILLION DOLLARS PER YEAR THROUGH A HIGHLY QUESTIONABLE CHANGE OF METHODOLOGIES. ASSUMED TRANSPORTATION BENEFITS ALSO FAILED TO ACCOUNT FOR LOSSES THAT WILL BE INCURRED BY OTHER MODES OF TRANSPORTATION. TRANSPORTATION BENEFITS, WHICH ACCOUNT FOR 70 PERCENT OF THE PROJECT'S BENEFITS, WERE CONCLUDED BY REVIEWERS TO BE SIGNIFICANTLY LOWER THAN THOSE LISTED BY THE CORPS.

2) THE COST ESTIMATES FOR AQUATIC WEED CONTROL WERE NOT CONSISTENT WITH THE EXPECTED RECREATIONAL USES OF THE CANAL. THE U.S. FISH AND WILDLIFE SERVICE ESTIMATED AQUATIC WEED CONTROL TO BE ABOUT TWO MILLION DOLLARS MORE PER YEAR THAN THE CORPS' ESTIMATE FOR THE AUTHORIZED ALIGNMENT.

ALSO, I'D LIKE TO NOTE HERE THAT MANY OF THE RECREATION BENEFITS NOTED BY THE CORPS OCCUR IN THE AREA-WHETHER OR NOT THE PROJECT IS CONSTRUCTED.

3) BASED ON TESTIMONY BY HYDRO-GEOLOGISTS FAMILIAR WITH THE AREA, THE 15 MILLION DOLLAR ESTIMATE FOR GROUTING IS BELIEVED TO BE EXTREMELY LOW.

4) AND FINALLY, MANY ENVIRONMENTAL COSTS (SUCH AS OBLIGATING LARGE QUANTITIES OF GROUNDWATER TO MAINTAIN ADDITIONAL DEPTHS AND POTENTIAL NEGATIVE IMPACTS ON BIOTA FROM A SPILL WITHIN THE CANAL) WERE NOT INCLUDED IN THE CORPS ANALYSIS AND WERE ASSIGNED A ZERO VALUE IN THE BENEFIT/COST ANALYSIS.

IN SUMMARIZING THE ECONOMIC PICTURE PRESENTED BY THE CORPS, THE STATE FEELS THAT THE BENEFITS WERE OVERSTATED AND THE COSTS UNDERSTATED. CONSIDERING THAT THE PROJECT HAD A MARGINAL B/C RATIO TO BEGIN WITH, IT IS EVIDENT THAT CONSTRUCTION OF THE CANAL IS A POOR INVESTMENT OF TAXPAYERS' MONEY.

THIS MESSAGE CAME THROUGH OVER AND AGAIN DURING THE TWO DAYS OF HEARINGS BY SUCH ECONOMISTS AS DR. HENRY FISHKIND, FROM THE UNIVERSITY OF FLORIDA; JOSEPH CARROLL, FROM PENNSYLVANIA STATE UNIVERSITY; AND DR. PAUL ROBERTS, FORMERLY OF THE UNIVERSITY OF FLORIDA.

IN SUMMATION OF THIS ENVIRONMENTAL AND ECONOMIC INFORMATION, IT SHOULD BE NOTED THAT VOLUMES OF STUDIES HAVE BEEN DONE ON THE CROSS FLORIDA BARGE CANAL. AS EARLY AS 1935, THE U.S. GEOLOGICAL SURVEY REPORTED THAT CUTTING A SEA LEVEL CANAL THROUGH OCALA LIMESTONE WOULD CAUSE TREMENDOUS DAMAGE TO WATER RESOURCES. UNFAVORABLE SHIPPING REPORTS BY THE U.S. DEPARTMENT OF COMMERCE IN 1936, AND THE THREAT OF RUINING A WATER RESOURCE, ENDED FUNDING FOR THE 1930'S VERSION OF THE CANAL.

THE CANAL WAS NOT THEN--NOR IS IT TODAY--AN ECONOMICALLY BENEFICIAL PROJECT. IT HAS NEVER BEEN AN ENVIRONMENTALLY SOUND PROJECT, AND GIVEN THE GEOLOGY OF FLORIDA, IT NEVER WILL BE.

JUSTIFICATION FOR THE CANAL UNDER THE UMBRELLA OF NATIONAL DEFENSE, WHICH WAS THE IMPETUS FOR THE WARTIME PUBLIC LAW NOW AUTHORIZING THE PROJECT, IS AT BEST DOUBTFUL. THE CANAL IS PHYSICALLY INCAPABLE OF ACCOMMODATING MOST NAVAL VESSELS OR OCEAN-GOING BARGES.

THE LACK OF A HOOK-UP AT THE CANAL'S WEST END TO THE INTRACOASTAL WATERWAY, AND THE OMISSION OF A TRANSLOADING FACILITY FROM THE CORPS FINAL IMPACT STATEMENT SEEM TO MOCK THE ENTIRE REASON FOR A CANAL. WESTBOUND INLAND BARGES REACHING THE CANAL'S TERMINUS AT YANKEETOWN HAVE NO PLACE TO UNLOAD, AND NO PLACE TO GO.

IN 1972, THE GOVERNOR AND CABINET RESCINDED THEIR SUPPORT OF THE CANAL UNTIL UP-TO-DATE ECONOMIC AND ENVIRONMENTAL INFORMATION COULD BE EVALUATED. IN DECEMBER, 1976, THEY RECOMMENDED AGAINST COMPLETION OF THE CANAL AND ASKED CONGRESS TO DEAUTHORIZE THE PROJECT.

PUBLIC WORKS PROJECTS ARE INITIATED AT THE STATE'S REQUEST. FLORIDA ASKED FOR THE CANAL AT A TIME WHEN ENVIRONMENTAL CONSIDERATIONS WERE POLITELY ACKNOWLEDGED AND LARGELY IGNORED.

FLORIDA HAS CHANGED ITS MIND IN THE LIGHT OF A DAY THAT HAS DAWNED BOTH IN OUR STATE AND ACROSS THE NATION. WE LIVE IN A DAY OF ENVIRONMENTAL ENLIGHTENMENT, WHERE CITIZENS ARE CONCERNED ABOUT THE PURITY OF WHAT THEY BREATHE, EAT AND DRINK. IN VIEW OF THEIR STATE'S GROWING POPULATION, FLORIDIANS ARE ACUTELY AWARE OF THEIR DRINKING AND RECREATIONAL WATERS. CONTAMINATION OF THE

FLORIDAN AQUIFER, THE STATE'S LARGEST SINGLE SOURCE OF DRINKING WATER, IS A LIKELIHOOD IF THE BARGE CANAL IS COMPLETED.

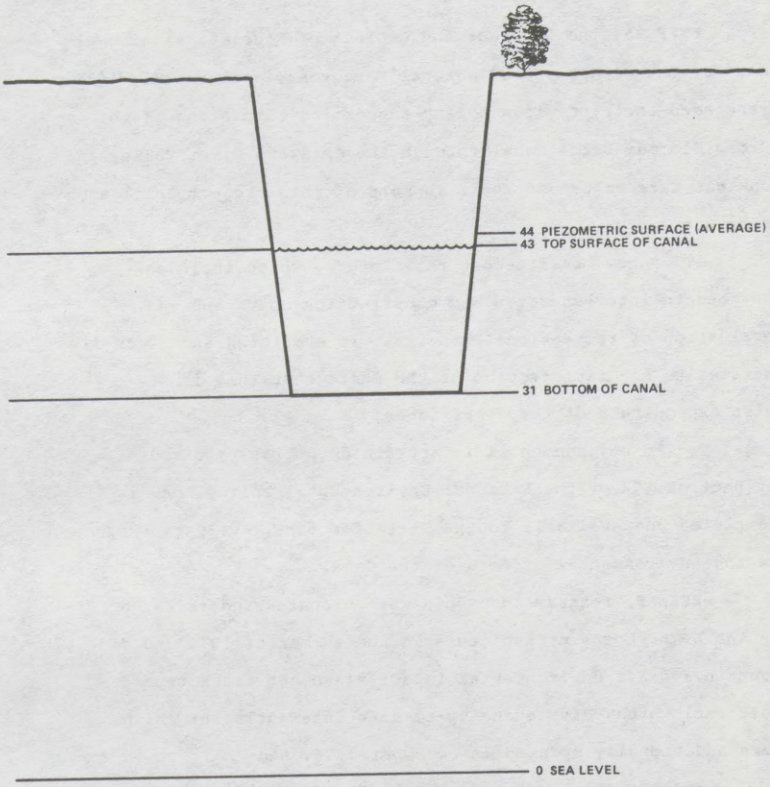
THE CANAL HAS BEEN A LONG STANDING DREAM. IT WAS MADE A PARTIAL REALITY BY THE ACTIONS OF STATE AND FEDERAL OFFICIALS. IT HAS BEEN A MUTUAL MISTAKE, ONE WHICH CAN ONLY GET WORSE IF THE PROJECT IS ALLOWED COMPLETION. FLORIDA ASKS THAT THE CROSS FLORIDA BARGE CANAL BE DEAUTHORIZED AS A FEDERAL PROJECT.

BECAUSE THE CANAL HAS BEEN SUCH A LONG TERM PROJECT, THERE MAY SEEM TO BE A LEGISLATIVE OBLIGATION TO FINISH IT. THERE IS AN OBLIGATION NOT TO POUR MORE MONEY INTO A PIPE DREAM, AND A STILL LARGER OBLIGATION TO PROTECT THE DRINKING WATER FOR THE CITIZENS OF FLORIDA.

WE URGE YOUR FAVORABLE CONSIDERATION OF SENATE BILL 1592 WITH THE AMENDMENTS MENTIONED EARLIER TO CHANGE THE EFFECTIVE DATE OF THE BILL AND TO MOVE SECTIONS 2, 3 AND 4 FROM SENATE BILL 1593 INTO SENATE BILL 1592, AT THE SAME TIME CHANGING THE DATE IN SECTION 2 OF SENATE BILL 1593.

THANK YOU.

RELATIONSHIP BETWEEN LAND-SURFACE, WATER LEVELS AND CANAL BOTTOM IN THE SUMMIT REACH REGION



Governor and Cabinet Resolution, Cross Florida Barge Canal

RESOLUTION

WHEREAS, the Governor and Cabinet of Florida, sitting as Head of the Department of Natural Resources, on August 1, 1972, rescinded their previous policy supporting completion of the Cross Florida Barge Canal through the Oklawaha River Valley and on that date suspended their support of this project until such time as:

1. A new benefit-cost ratio study, which includes up-to-date interest rates and construction costs and re-evaluation of recreational benefits, is completed and demonstrates to the satisfaction of the State that this is a wise expenditure of taxpayers funds.

2. An environmental impact statement, as required by Section 102 of the National Environmental Policy Act, is completed and available to the State for final evaluation as to the environmental effects of the Canal.

WHEREAS, restudy documents were prepared and released by the U. S. Corps of Engineers in the summer of 1976 and did contain a draft environmental impact statement and a benefit/cost ratio study displaying up-to-date interest rates which were additionally updated in December 1976; and

WHEREAS, the Governor and Cabinet of Florida, sitting as the Head of the Department of Natural Resources, on December 16 and 17, 1976, did consider the restudy documents and take public testimony relative to the Cross Florida Barge Canal;

NOW THEREFORE BE IT RESOLVED THAT:

A. The Governor and Cabinet, sitting as the Head of the Department of Natural Resources, and recognizing the authority of the United States Congress to complete the canal, respectfully:

1. Recommend against completion of the Cross Florida Barge Canal Project.

2. Request the United States Congress to de-authorize the Cross Florida Barge Canal Project.

3. Recommend to the United States Congress that it authorize and appropriate sufficient funds for federal participation in and implementation of the following recommendations:

(a) Establishment of a State-Federal Task Force to study and recommend the best disposition and use of the canal lands with special emphasis on:

(1) Restoration of the Oklawaha River, its designation as a wild and scenic river, and its inclusion in the Ocala National Forest;

(2) Use of other remaining canal lands for public recreational and environmental purposes especially to meet the present and future needs of the canal-area counties; and

(b) Lands previously supplied by the State of Florida to the Federal Government and not necessary for use by the Federal Government for a wild and scenic river system or Ocala National Forest be returned to the State of Florida.

4. Direct the staff of the Department of Natural Resources to coordinate state efforts in an interagency State-Federal Task Force to study and recommend the best disposition and use of the canal lands with special emphasis on restoration of the Oklawaha River, its designation as a wild and scenic river, and its inclusion in the Ocala National Forest.

5. Direct the Division of State Planning of the Department of Administration to study and make specific recommendations for applications to be made by the State of Florida to the United States Congress for funding of sewage treatment construction projects in the State of Florida, for federal impact funds for economically depressed areas, as well as other federal funds which will have an impact on the State of Florida.

B. The Governor and Cabinet, sitting as the Head of the Department of Natural Resources, recommend to the 1977 Florida Legislature that:

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1. The responsibilities of the Canal Authority be amended in order to retain public ownership of the lands associated with the project as necessary to accomplish "A" above.

2. Legislation be enacted which will permit appropriate title to be secured for those lands currently held in easement as necessary to accomplish "A" above.

3. Title to the lands associated with the project retained by or returned to an agency of the state be transferred to the Trustees of the Internal Improvement Trust Fund.

4. Chapter 374, Florida Statutes, Part II (Sections 374.301-374.521) be repealed and any funds remaining in the accounts of the Cross Florida Canal Navigation District and not legally obligated, be returned to the counties in the District on a prorata basis, established by the tax monies furnished to the District by these counties.

5. Section 20.25(12), Florida Statutes, be amended to read "The canal authority of the State of Florida, created under part I of Chapter 374, is transferred by a type three transfer to the Department of Natural Resources and the functions shall be assigned to the Division of Resource Management".

6. All such state lands determined not to be necessary for recreation, wildlife or environmental preservation be sold at public sale to the highest bidder and the funds derived be refunded to the counties involved on a prorata basis in the manner established by the tax monies furnished by these counties for the Cross Florida Canal Navigation District. The total monies refunded to the various counties are to be calculated by converting the actual amount furnished to its present dollar value giving the effect of interest charged at average market rates being compounded annually over the total period of financial commitment. Should the funds so derived be in excess, any surplus will be returned to the different counties on a prorata basis. Should the funds so derived be insufficient, the Governor and Cabinet, sitting

as Head of the Department of Natural Resources, recommend to the Florida Legislature that they appropriate sufficient funds to fulfill this obligation.

C. The Governor and Cabinet, sitting as Head of the Department of Natural Resources, direct the staff of the Department of Natural Resources, upon approval and implementation of "B.5", to prepare any additional legislative recommendations for use or disposition of resources and facilities of the project consistent with the above recommendations.

DONE AND EXECUTED at Tallahassee, Florida, this 17th day of January, 1977, A. D.

Reubin O'D Askew
Governor

Bruce A. Smathers
Secretary of State

M. L. Shevin
Attorney General

Gerald A. Lewis
Comptroller

Bill Gunter
Treasurer

Commissioner of Agriculture

Ralph D. Turlington
Commissioner of Education

ATTEST:

Mary C. Nowak
Secretary

As and Constituting the Head of the State of Florida Department of Natural Resources.

Statement of Congressman C. W. Bill Young before the Subcommittee on Water Resources, July 26, 1978

Mr. Chairman, I want to thank the Members of your Subcommittee on Water Resources for the opportunity to present testimony in support of legislation to deauthorize the Cross-Florida Barge Canal. It is important that the people of Florida who oppose the Canal be able to share their views with you. I am one of the many who feel this deauthorizing legislation should be passed as soon as possible.

The Subcommittee Members are undoubtably familiar with the history of the Canal so I will direct my remarks to the need to bring an end to this history by enactment of this deauthorization bill.

Because of the effect this project has on the State of Florida, it is important that the position of the State's governing officials be part of the record of this proceeding. After conducting a public hearing in December, 1976, the Governor and Cabinet of the State of Florida recommended against completion of the Canal project and requested that Congress enact legislation permanently deauthorizing the Canal. They also expressed their support of restoration of disrupted portions of the Oklawaha River and its designation as a wild and scenic river.

This recommendation was followed shortly by the report of the Chief of Engineers of the Army Corps of Engineers in Jacksonville. This report was based on the Final Environmental Impact Statement and the Final Restudy Report for the Canal. The District Engineer concluded that while construction of the Canal was feasible from an engineering standpoint, the economic justification was marginal and completion was not favored when combined with the potential adverse environmental impacts.

Subsequently, representatives of the Department of the Interior, the Department of Agriculture, the Environmental Protection Agency, and the President's Council on Environmental Quality met in Washington and issued a memorandum of recommendation identical to the decisions reached by Governor Reuben Askew and his Cabinet- that the Canal should not be completed and that the project should be deauthorized by appropriate legislation.

With Florida government officials, federal environmental agencies, the Army Corps of Engineers, Florida conservation groups, and much of the Florida Congressional delegation feeling that the project should be terminated, it is imperative that the project now be officially killed by the same legislative body that first gave it life in 1942.

Studies have shown that from an economic standpoint the Canal is a bad investment. A wild river would be destroyed if the Canal were to be completed. There would be the probability of water pollution which further canal construction could cause. One thing is sure, the taxpayers of Florida and the United States would be losers. The last projected cost for completion of the project was $425 million. This was in 1977 and the price tag would be much higher now. The taxpayers of my State and this nation do not want to waste another dollar on the construction or study of this boondoggle. The record and the price tag make it clear that this legislation must be acted on favorably in order for the best interests of the citizens to be served.

One of the usual reasons to support a project of this type is because of the jobs that would be created. In 1976 a consulting firm reported that it found no evidence that the controversial project would attract a single new industry to the mid-state area which the Canal would bisect. What would be attracted would be environmental damage, costly maintenance, destruction of fresh water supplies, costly weed control programs for plants that are already a major problem in Florida's fresh water areas, chemical spills from barges and a host of other problems associated with this kind of project.

The thousands of pages of official reports compiled and printed at a cost of millions of dollars over the years do not need another page added to them. If this project is not killed once and for all by this deauthorization legislation, another useless study may somehow be conducted at taxpayers expense and the conclusion will be what is already known--the Cross-Florida Barge Canal should not be completed. The residents of Florida and the nation will benefit only by the permanent end to this project. They will benefit from the millions of dollars saved and the many Florida natural resources that will be spared.

After the aforementioned reports and recommendations were publicized, there were no groundswells of popular support for the Canal. On the contrary, most of those interested in this project realized that it must be stopped permanently and have supported the views of the Corps that "the final determination of public interest should rest with Congress." Because it is now up to the Congress to determine the next step, I urge the Subcommittee to express its view that the public interest will best be served by the deauthorization of the project.

While serving as a Florida State Senator, I worked to stop the Canal. Since coming to Congress I have continued my efforts to prevent further construction and prohibit any further funding of the project in order to stop any continuation of the waste. The passage of this bill would accomplish in one act what I and many others have been trying to do for years.

The reports have been written and the facts are in the public record. The end result is the need to support enactment of this legislation. There is not one good reason to continue to waste another minute of the Congress' time or another dollar of taxpayers' money on this matter.

STATEMENT OF THE
HONORABLE BILL CHAPPELL, JR.
ON THE
CROSS-FLORIDA BARGE CANAL
BEFORE THE
SENATE ENVIRONMENT AND PUBLIC WORKS
SUBCOMMITTEE ON WATER RESOURCES

THANK YOU MR. CHAIRMAN FOR ALLOWING ME THE OPPORTUNITY OF APPEARING TODAY TO GIVE YOU MY VIEWS ON THE CROSS-FLORIDA BARGE CANAL PROJECT. THE REVIEW OF THIS PROJECT COMES AT A PARTICULARLY APPROPRIATE TIME INASMUCH AS THE NEED FOR AN ADEQUATE, ASSURED WATER SUPPLY AND OUR NATIONAL ENERGY CRISIS ARE BOTH VITAL ISSUES WHICH CONCERN ALL AMERICANS THROUGHOUT THE COUNTRY -- NORTH, SOUTH, EAST, AND WEST. THE PRESIDENT HAS PRESENTED HIS PLAN FOR DEALING WITH THE ENERGY CRISIS AND CLEARLY THAT EMPHASIS IS FOCUSED ON GREATER USE OF COAL FOR POWER GENERATION AND MORE ENERGY EFFICIENT MEANS OF TRANSPORTATION. THE CROSS-FLORIDA BARGE CANAL IS THE 110 MILE MISSING LINK (150' WIDE AND 12' DEEP) IN A 26,000 MILE NATIONAL INLAND WATERWAY SYSTEM WHICH EXTENDS FROM THE GULF COAST AND THE COAL RICH WESTERN AND MIDWESTERN PARTS OF THE COUNTRY TO THE ATLANTIC AND EASTERN SEABOARD, INCLUDING THE SHORTENED ROUTE FROM THE MIDWEST VIA THE TENNESSEE - TOMBIGEE WATERWAY. LET'S CONSIDER, FOR A MOMENT, THE RELATIVE EFFICIENCY AND FUEL SAVINGS IN WATER TRANSPORTATION OVER ALL OTHER MODES OF TRANSPORTING BULK COMMODITIES. FOR EXAMPLE, COMPARE THAT $1 OF GASOLINE OR ITS EQUIVALENT WILL MOVE ONE TON OF BULK CARGO:

5 MILES BY AIR
15 MILES BY TRUCK
65 MILES BY TRAIN
333 MILES BY WATER BORNE BARGE

MR. CHAIRMAN, MY POINT IS THE QUESTION YOU HAVE UNDER CONSIDERATION TODAY - THE CROSS-FLORIDA BARGE CANAL PROJECT IS A NATIONAL ISSUE, NOT JUST A STATE OR LOCAL ISSUE. THERE HAS BEEN A GREAT DEAL OF EMOTION CONCERNING THIS PROJECT AND HOPEFULLY, THIS HEARING WILL BE SUCCESSFUL IN SEPARATING THE FACTS FROM THE FICTION.

AS YOU KNOW, THE CROSS-FLORIDA BARGE CANAL WAS FIRST AUTHORIZED BY CONGRESS IN 1942, LONG BEFORE I CAME TO CONGRESS. WHEN I CAME TO CONGRESS IN 1969, THE PROJECT WAS FULLY AUTHORIZED AND PARTIALLY FUNDED. TO DATE, THE THREE DAMS REQUIRED HAVE BEEN COMPLETED, THREE OF FIVE LOCKS HAVE BEEN COMPLETED, AND FOUR OF ELEVEN HIGHWAY BRIDGES HAVE BEEN CONSTRUCTED AT A CONSTRUCTION COST OF $60 MILLION TO THE FEDERAL GOVERNMENT. THE CORPS ESTIMATES THAT IT WILL REQUIRE AN ADDITIONAL $250 MILLION TO COMPLETE THE ENTIRE PROJECT. THIS INCLUDES THE COST TO REALINE THE CANAL ROUTE AWAY FROM THE OKLAWAHA RIVER SWAMP TO MINIMIZE OR ELIMINATE ANY POSSIBLE ENVIRONMENTAL DAMAGE.

I HAVE CONSISTENTLY TAKEN THE POSITION THAT I WOULD NOT SUPPORT THE PROJECT UNLESS PROPER STUDY SHOWED IT TO BE ECONOMICALLY AND ECOLOGICALLY SOUND. THEREFORE, IN AN EFFORT TO SEPARATE FACT FROM FICTION BY SUCH A STUDY, I ACTIVELY SOUGHT AND HELPED TO WIN CONGRESSIONAL APPROVAL TO PROVIDE THE $2.6 MILLION FOR THE EXHAUSTIVE ENVIRONMENTAL AND ECONOMIC RESTUDY OF THE CROSS-FLORIDA BARGE CANAL PROJECT NOW AVAILABLE TO YOUR COMMITTEE. AFTER A THREE YEAR RESTUDY EFFORT MANAGED BY THE CORPS OF ENGINEERS AND PARTICIPATED IN BY OUTSIDE, INDEPENDENT ORGANIZATIONS WITH ACKNOWLEDGED EXPERTISE IN THEIR FIELD I AM TOTALLY CONVINCED THAT THE CROSS-FLORIDA BARGE CANAL IS BOTH ECONOMICALLY AND ECOLOGICALLY SOUND: THAT THEREFORE FURTHER PROJECT CONSTRUCTION AND

OPERATION WOULD RESULT IN NO ADVERSE ENVIRONMENTAL IMPACTS THAT CANNOT COMPLETELY BE OVERCOME BY SOUND ENGINEERING PRACTICES, THAT NO DAMAGE WOULD RESULT TO THE AQUIFER, THAT THE WATER SUPPLY OF SOUTH FLORIDA WOULD NOT IN ANYWISE BE AFFECTED, THAT THERE WOULD BE NO DANGER OF SALT WATER INTRUSION, THERE WOULD BE NO LOWERING OF THE WATER TABLE -- ASIDE FROM MINOR SCATTERED FLUCUATIONS ALONG THE IMMEDIATE CANAL LITTORAL, AND THAT THE CANAL WOULD PROVIDE BOTH FLOOD CONTROL AND WATER STORAGE. IN ADDITION, THERE WOULD BE NO RARE OR ENDANGERED SPECIES SIGNIFICANTLY AFFECTED. ON THE OTHER HAND, PROJECT COMPLETION WOULD INCREASE THE HABITAT FOR OSPREYS, EAGLES, WADING BIRDS, WATER FOWL AND ALLIGATORS, TO MENTION ONLY A FEW ENDANGERED SPECIES. CONSTRUCTION TO DATE HAS ENHANCED FISHERIES AND PROVIDED INCREASED HABITAT FOR NESTING SEA BIRDS AND DIAMOND-BACK TERRAPINS. MR. CHAIRMAN, I WOULD LIKE TO POINT OUT THAT THIS ASSESSMENT IS NOT MINE ALONE BUT IT IS THAT OF THE HOUSE APPROPRIATION SUBCOMMITTEE ON PUBLIC WORKS OF WHICH I AM A MEMBER. THIS ASSIGNMENT WAS BASED UPON THE CORPS FINDINGS AND THE SUBCOMMITTEE HEARINGS ON THE CORPS' CROSS-FLORIDA BARGE CANAL RESTUDY EFFORT ON APRIL 21, 1977. RATHER THAN TAKING THE SUBCOMMITTEE'S TIME REVIEWING THAT HEARING IN DETAIL, I WOULD REQUEST THE CHAIRMAN'S PERMISSION TO INSERT, AT THIS POINT IN THE RECORD, THE TEXT OF THAT HEARING AND PAGES 68 & 69 OF THE HOUSE COMMITTEE ON APPROPRIATIONS REPORT ACCOMPANYING THE PUBLIC WORKS FOR WATER AND POWER DEVELOPMENT AND ENERGY RESEARCH APPROPRIATION BILL, FY 1978 WHICH STATES THE COMMITTEE'S POSITION ON THE CROSS-FLORIDA BARGE CANAL PROJECT. IN SUMMARY, THE COMMITTEE FOUND THAT PROJECT CONSTRUCTION AND OPERATION WOULD RESULT IN NO ADVERSE

ENVIRONMENTAL IMPACTS THAT CANNOT BE COMPLETELY OVERCOME BY SOUND ENGINEERING PRACTICES AND THAT ECONOMIC BENEFITS FOR THE CROSS-FLORIDA BARGE CANAL PROJECT COULD RANGE AS HIGH AS 5 TO 1, OR HIGHER. THIS DETERMINATION STEMS FROM THE FACT THAT THE CORPS RESTUDY DID NOT INCLUDE FOUR CATEGORIES OF ECONOMIC BENEFITS IN THE OVERALL ASSESSMENT. CORPS WITNESSES ACKNOWLEDGED THAT FURTHER ECONOMIC STUDIES IN ACCORDANCE WITH THE PROVISIONS OF SECTION 140 IS AN UNMET REQUIREMENT, AND THE HOUSE COMMITTEE ON APPROPRIATIONS AGREES THAT THE RESTUDY REPORT IS NOT COMPLETE IN THE ABSENCE OF AN ECONOMIC ASSESSMENT WHICH INCLUDES CONSIDERATION OF (1) AREA REDEVELOPMENT, (2) REGIONAL ECONOMIC BENEFITS, (3) CONTINGENCY BENEFITS, AND (4) THE MOVEMENT OF COAL BY BARGE.

IN THE TIME REMAINING, MR. CHAIRMAN, I WOULD LIKE TO HIT JUST A FEW OF THE HIGHLIGHTS OF THE CORPS TESTIMONY ON THE MOST SALIENT ISSUES. IN AN EFFORT TO PROVIDE THE SUBCOMMITTEE WITH THE BEST INFORMATION, I REQUESTED THAT THE CORPS MAKE AVAILABLE TODAY MAJOR GENERAL McGINNIS, DIRECTOR OF CIVIL WORKS, AND LLOYD H. SAUNDERS, JAMES L. GARLAND AND SAM EISENBERG OF THE JACKSONVILLE DISTRICT WHO PARTICIPATED IN THE RESTUDY EFFORT AND WHO HAVE INTIMATE KNOWLEDGE OF THE CROSS-FLORIDA BARGE CANAL PROJECT, AND ARE AVAILABLE HERE TODAY TO REAFFIRM THE FACTS AS REFLECTED BY CORPS TESTIMONY TO WHICH I HAVE JUST REFERRED.

ENDANGERED SPECIES

THE FINAL SUMMARY ENVIRONMENTAL IMPACT STATEMENT ON PAGE 16, STATES: "NONE OF THE PROJECT AREA HAS BEEN DECLARED CRITICAL HABITAT

FOR ANY ENDANGERED SPECIES." FURTHER, ON PAGE 36c OF THE FINAL SUMMARY, THE CORPS MAINTAINS THAT THERE WILL BE NO IMPACT ON ENDANGERED PLANT SPECIES.

LAKE OCKLAWAHA

THIS MANMADE LAKE, CREATED DURING EARLIER CONSTRUCTION, HAS GAINED NATIONAL REPUTATION AS AN EXCELLENT NATIONAL RESOURCE FOR BOTH FISHING AND RECREATION. ON PAGE 32 OF THE FINAL EIS, IT IS POINTED OUT THAT THE LAKE OCKLAWAHA BASS CATCH RATE OF .16 PER FISHING MAN-HOUR WAS MORE THAN TWICE THAT OF ANY OTHER REACH, EXCEPT LAKE ROUSSEAU (.12).

OKLAWAHA RIVER

THERE HAS BEEN MUCH SAID ABOUT DESIGNATING THE OKLAWAHA RIVER FOR STUDY AS A WILD AND SCENIC RIVER. THE FINAL EIS REPORT, ON PAGE 35, CONCERNING THIS ISSUE STATES: "A LATER AND INDEPENDENT STUDY BY THE U.S. BUREAU OF OUTDOOR RECREATION (1975) ELIMINATED THE OKLAWAHA RIVER FROM CONSIDERATION FOR WILD AND SCENIC RIVER STATUS BECAUSE, IT IS (1) PARTLY IMPOUNDED, (2) PARTLY CHANNELIZED, AND (3) THE REMAINDER TOO SHORT TO MEET THE CRITERIA." FURTHERMORE, THERE HAS BEEN DEVELOPMENT ON OTHER SEGMENTS OF THE OKLAWAHA WHICH FURTHER REDUCES ITS ELIGIBLE LENGTH.

SUNK COSTS

IN THE RESTUDY EFFORT BY THE CORPS, THE $60 MILLION ALREADY INVESTED IN CANAL CONSTRUCTION, WAS INCLUDED IN THE COST TO COMPLETE

THE PROJECT. HAD THESE COSTS NOT BEEN INCLUDED IT WOULD HAVE RAISED THE CORPS' BENEFIT - COST RATIO TO 1.27 TO 1. IT IS WIDELY RECOGNIZED THAT SUNK COSTS SHOULD NOT BE USED IN DETERMINING WHETHER OR NOT A PROJECT SHOULD BE COMPLETED. IN FACT, WHEN PRESIDENT CARTER UNDERTOOK HIS REVIEW OF ONGOING WATER PROJECTS IN 1977, HE SPECIFICALLY EXCLUDED "SUNK COSTS" IN DETERMINING ECONOMIC VIABILITY. IN MY VIEW, IT IS TOTALLY INCONSISTENT POLICY FOR THE CORPS TO USE "SUNK COST" IN THE EVALUATION OF THE CROSS-FLORIDA BARGE CANAL PROJECT WHILE AT THE SAME TIME EXCLUDING "SUNK COST" FROM OTHER WATER RESOURCE PROJECTS.

PRESENT STATUS

LOCAL UNITS OF GOVERNMENT HAVE EXPENDED OVER $13 MILLION TO PURCHASE THE REQUIRED RIGHT-OF-WAY FOR THIS PROJECT, WHICH WAS ACQUIRED BY THE CANAL AUTHORITY PRIMARILY THROUGH CONDEMNATION PROCEEDINGS FOR THE PRIME PURPOSE OF WATER TRANSPORTATION AND SECONDARILY FOR RECREATION. TITLE WAS THENCE TRANSFERRED TO THE FEDERAL GOVERNMENT. IN MY VIEW, ANY ABANDONMENT OF THIS PROJECT BY THE FEDERAL GOVERNMENT WILL RESULT IN A RETURN OF THE ACQUIRED LAND TO THE ORIGINAL OWNERS AND WILL ENTAIL LENGTHY AND COSTLY LEGAL PROCEEDINGS. MY VIEW IN THIS MATTER IS SUPPORTED BY A RECENT FINAL JUDGMENT RENDERED BY THE CIRCUIT COURT, FIFTH JUDICIAL CIRCUIT, IN AND FOR MARION COUNTY, FLORIDA, IN OCALA MANUFACTURING, ICE AND PACKING COMPANY VS. THE CANAL AUTHORITY OF THE STATE OF FLORIDA, A BODY CORPORATE UNDER THE LAWS OF THE STATE OF FLORIDA. THE COURT, IN ITS DECISION ENTERED ON SEPTEMBER 28, 1977 STATED, INTER ALIA, THE FOLLOWING:

"IT IS THEREFORE ORDERED AND ADJUDGED:

1. THAT UPON THE HAPPENING OF ANY OF THE FOLLOWING EVENTS:

A. THE CONGRESS OF THE UNITED STATES OF AMERICA DEAUTHORIZES THE CROSS-FLORIDA BARGE CANAL PROJECT.

B. THE UNITED STATES CONGRESS FAILS TO APPROPRIATE FUNDS FOR THE CONSTRUCTION OF THE CROSS-FLORIDA BARGE CANAL AND THE EUREKA POOL, WITHIN FOUR YEARS FROM THE DATE HEREOF.

C. THE LEGISLATURE OF THE STATE OF FLORIDA ABOLISHES THE DEFENDANT OR ATTEMPTS TO TRANSFER ITS ASSETS IN CONJUNCTION WITH SUCH ABOLISHMENT OF OTHERWISE.

D. THE LEGISLATURE OF THE STATE OF FLORIDA ENACTING LEGISLATION PROHIBITING THE CONSTRUCTION OF THE CROSS-FLORIDA BARGE CANAL AND THE EUREKA POOL."

THE TITLE TO THE DESCRIBED LANDS SHALL REVEST IN THE OCALA MANUFACTURING COMPANY, SUCCESSOR IN INTEREST TO OCALA MANUFACTURING, ICE & PACKING COMPANY, UPON THE DEPOSIT IN THE REGISTRY OF THIS COURT OF THE SUM OF $395,848.50.

DONE AND ORDERED IN OCALA, MARION COUNTY, FLORIDA, THIS 28TH DAY OF SEPTEMBER, 1977.

s/ W. STURGIS
CIRCUIT JUDGE

MR. CHAIRMAN, I WOULD LIKE PERMISSION TO INCLUDE A COPY OF JUDGE STURGIS'S RULING AT THIS POINT IN THE RECORD.

PUBLIC SUPPORT

IN CLOSING, MR.CHAIRMAN, I RECOGNIZE THAT THERE WERE MANY WITNESSES WHO REQUESTED TO TESTIFY IN SUPPORT OF THE PROJECT WHO COULD NOT BE HEARD DUE TO A LACK OF AVAILABLE TIME. THERE ARE, HOWEVER, A GOOD NUMBER OF THOSE POTENTIAL WITNESSES HERE TODAY AND ASK THAT THEY STAND NOW AND BE RECOGNIZED. IN A RECENT POLL TAKEN BY THE JACKSONVILLE TIMES-UNION, WHICH SERVES THE COUNTIES ALONG THE PROPOSED CANAL ROUTE, 51% OF THOSE RESPONDING FAVORED COMPLETION OF THE CROSS-

FLORIDA BARGE CANAL PROJECT WHILE ONLY 23% WERE OPPOSED. THE REMAINDER EITHER HAD NO OPINION OR WERE NOT FAMILIAR WITH THE PROJECT. IN ADDITION, DUVAL, PUTNAM, CITRUS AND MARION COUNTIES WHICH LIE ALONG THE CANAL ROUTE HAVE ADOPTED RESOLUTIONS SUPPORTING COMPLETION OF THE CROSS-FLORIDA BARGE CANAL.

BASED ON THE WEIGHT OF THE EVIDENCE PRESENTED TO THE PUBLIC WORKS SUBCOMMITTEE OF THE HOUSE COMMITTEE ON APPROPRIATIONS BY THE CORPS OF ENGINEERS IN SUPPORT OF THEIR 3 YEAR RESTUDY EFFORT, I MUST STRONGLY OPPOSE S. 1591 - A BILL TO TERMINATE FURTHER CONSTRUCTION OF THE CROSS-FLORIDA BARGE CANAL PROJECT.

AGAIN, I WANT TO THANK THE CHAIRMAN FOR ALLOWING ME TO EXPRESS MY VIEWS.

PUBLIC WORKS FOR WATER AND POWER DEVELOPMENT AND ENERGY RESEARCH APPROPRIATION BILL, 1978

HEARINGS

BEFORE A

SUBCOMMITTEE OF THE COMMITTEE ON APPROPRIATIONS HOUSE OF REPRESENTATIVES

NINETY-FIFTH CONGRESS

FIRST SESSION

SUBCOMMITTEE ON PUBLIC WORKS

TOM BEVILL, Alabama, *Chairman*

EDWARD P. BOLAND, Massachusetts
JAMIE L. WHITTEN, Mississippi
JOHN M. SLACK, West Virginia
LINDY (MRS. HALE) BOGGS, Louisiana
NORMAN D. DICKS, Washington
GEORGE E. SHIPLEY, Illinois
BILL CHAPPELL, Florida
JOHN T. MYERS, Indiana
CLAIR W. BURGENER, California
VIRGINIA SMITH, Nebraska

HUNTER L. SPILLAN, GEORGE A. URIAN, and JOHN G. PLASHAL, *Staff Assistants*

PART 10

CROSS FLORIDA BARGE CANAL

Printed for the use of the Committee on Appropriations



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PUBLIC WORKS FOR WATER AND POWER DEVELOPMENT AND ENERGY RESEARCH APPROPRIATION BILL, 1978

THURSDAY, APRIL 21, 1977.

CROSS FLORIDA BARGE CANAL

WITNESSES

LT. GEN. JOHN W. MORRIS, CHIEF OF ENGINEERS
MAJ. GEN. ERNEST GRAVES, DIRECTOR OF CIVIL WORKS
COL. D. A. WISDOM, DISTRICT ENGINEER, JACKSONVILLE DISTRICT
DR. LLOYD H. SAUNDERS, CHIEF, ENVIRONMENTAL BRANCH, JACKSONVILLE DISTRICT
JAMES L. GARLAND, CHIEF, ENGINEERING DIVISION, JACKSONVILLE DISTRICT
SAM EISENBERG, PROJECT MANAGER, JACKSONVILLE DISTRICT

Mr. BEVILL. Gentlemen, we are pleased to have you with us.

We will proceed with the hearing on the Cross Florida Barge Canal.

We are delighted to have each of you, and particularly Colonel Wisdom and his staff, who have been closest to the environmental impact statement and economic study reports to help us evaluate the environmental and economic aspects of this $2.6 million 3-year study.

AUTHORIZATION AND HISTORY OF PROJECT

The Cross Florida Barge Canal was authorized in 1942. The project has been funded by local and Federal authorities since 1963. It is now over one-third completed.

President Nixon, in a news release of January 19, 1971, indicated his intention to halt construction on this project and thereby attempt to terminate further construction.

The Canal Authority of the State of Florida filed suit to test the validity of the presidential attempt at termination. The court thereafter ruled that the President has no such authority and directed the executive department to release $150,000 which had been impounded. This money was appropriated in 1972 by the Congress for the Corps to make an environmental impact study on the canal project. Thereafter Congress has appropriated a total of $2.6 million, including the above-mentioned $150,000, for the completion of the study referred to a moment ago.

The canal project, at the time of the presidential order, was actively under construction but has since only been in a maintenance status. The court ordered that such studies be filed with it on February 21, 1977. In compliance with the court order, such study is on file with the committee today.

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YIELDING OF CHAIR TO MR. CHAPPELL

I want to mention at this point that the House has an appropriation bill on the floor so I am going to ask our distinguished colleague, Mr. Chappell, to take over as acting chairman of this committee for this hearing.

Congressman Chappell, as you know, is one of our most outstanding Members of Congress, a former speaker of the House of Representatives of Florida and one whom we all admire and respect. He has added so much to this subcommittee and its hearings, and his diligent efforts and work we all appreciate so much.

I know I can speak with authority because he and I have been sitting next to each other for a good many years. I came on the Appropriations Committee I think 3 days ahead of Congressman Chappell. We have worked very closely together. So if you will, Congressman Chappell, I wish you would take over and handle the chairmanship of this subcommittee.

Mr. CHAPPELL. Thank you, Mr. Chairman.

I want to point out the difference 3 days makes.

I think, general, general and colonel, we will just run over and vote and we will come right back so we will not have to break here in 3 minutes. We will be back in about 10 minutes.

The subcommittee will stand adjourned.

[Recess.]

Mr. CHAPPELL. The committee having stood in informal recess for the purpose of a vote on the House floor now reconvenes for the purpose of receiving testimony with reference to the Cross Florida Barge Canal.

WELCOMING OF WITNESSES

Gentlemen, before we actually start into this let me say that I certainly welcome you gentlemen at this point to give us the benefit of your thoughts and explanations with reference to the study which is now before the committee. I commend you especially, Colonel Wisdom, for completing a very difficult project under some of the most trying circumstances I have ever seen with reference to an investigation of a project. I commend you very highly on that. I would like to go a bit more into some of the facts which I think are relevant to our deliberations.

TIMELINESS OF REVIEW OF CANAL

The review of the Cross Florida Barge Canal project which we are here to discuss today comes at a particularly appropriate time inasmuch as the need for an adequate, assured water supply and our national energy crisis are both vital issues which concern all Americans throughout the country—North, South, East, and West. The President has presented his plan for dealing with the energy crisis and clearly his emphasis is focused on greater use of coal for power generation and more energy efficient means of transportation. The Cross Florida Barge Canal will tie together 26,000 miles of inland waterways extending from the gulf coast and the coal rich western and Midwestern parts of the country to the Atlantic and eastern seaboard, including the shortened route from the Midwest via the Tennessee-Tombigbee Waterway.

EFFICIENCY OF WATER TRANSPORTATION

Let's consider, for a moment, the relative efficiency and fuel savings in water transportation over all other modes of transporting bulk commodities.

Comparing, for example, that $1 worth of gasoline or its equivalent will move 1 ton of bulk commodities 5 miles by air, 15 miles by truck, 65 miles by train, 333 miles by waterborne barge.

General, I believe those are statistics which you confirmed at an earlier hearing.

IMPACT OF WATER TRANSPORTATION ON ENERGY CRISIS

The positive impact of water transportation on the energy crisis is the obvious reason why this particular subcommittee has a solemn duty to the American public to insure that the optimum use of this Nation's waterways is realized.

Earlier this year, General Morris, you emphasized to the subcommittee the national importance of river and harbor projects in the following terms:

Transportation carries the lifeblood of our modern industrial society. Efficient and economical movement of people and goods is essential to every sector of our economy. Federal deep-draft channels serve our overseas trade, and inland waterways carry vast quantities of goods between our Nation's cities. Surely, this Nation needs and deserves a first-class water transportation system.

And I congratulate you on that good statement, because I believe your thoughts adequately sum up the concern of this subcommittee as well as a large number of our colleagues in the Congress.

With the canal project in being, during normal years the Oklawaha and Withlacoochee basins will discharge daily, into the St. Johns and the Gulf, in excess of about 1.3 billion gallon per day—over and above all other canal project and canal area requirements.

This unused fresh water excess, which is about 5½ times the reported municipal water supply demands for the entire State of Florida in 1970, could be made available to meet growing needs in water-short areas such as Pinellas, as well as the other 18 south Florida counties.

Even during the statistical occurrence of a 25-year drought, this surplus still amounts to about 174 million gallons per day, or about 75 percent of the daily needs of the Saint Petersburg metropolitan area.

The lakes and impoundments connected with the Cross Florida Barge Canal project have a total storage capacity of 35.5 billion gallons—sufficient in dire emergencies to provide South Florida with a supply of 200 million gallons of fresh water per day for about 6 months.

PURPOSE OF HEARING

With these general thoughts in mind then, the specific purpose of the hearing today is to seek additional information on the recently completed Cross Florida Barge Canal project, restudy report, particularly in the areas of the environment and economics. This committee has carefully considered the pros and cons of the project over the

32-863 O - 72 - 9

years, and we intend to see that the public record is complete and accurate insofar as is possible, and to determine that the moneys appropriated by this committee for construction and for the recently completed studies were well spent.

BACKGROUND OF REVIEW STUDY

In June of 1970 this committee heard considerable testimony and reviewed documentary reports prior to concluding that the effect of the construction of the Cross Florida Barge Canal would be a long term gain in environmental quality, H.R. Report No. 91–1219, page 58, 91st Congress, 2d session, June 18, 1970.

The subcommittee was surpised, to say the least, when the executive department halted the project and gratified when, in 1974 after extensive litigation, a senior Federal appeals court judge, sitting as a U.S. district judge in Jacksonville, ruled that the executive branch had exceeded its constitutional authority and that the attempt to terminate was invalid. This order was filed with this committee in House Report of February 25, 1974, page 69.

General Morris, in February, 1974, at a time when you were Director of Civil Works, this subcommittee asked General Gribble, the then Chief of Engineers, if he had received any instructions from the White House, CEQ, or Secretary of the Army that would in any way inhibit the corps' freedom of action to comply fully with the National Environmental Policy Act, NEPA, instructions regarding preparation of the environmental impact statement, EIS. The subcommittee was assured by General Gribble that such was not the case. It is of interest to note that the court, in its order of February 1974, recognized that because of the President's position and Chief of Engineers' that a matter of official or public embarrassment to these officials might occur in preparing the EIS. The court therefore suggested the retaining of impartial professional organizations to prepare the EIS. That year, 1974, the Congress appropriated additional funds for the corps to complete the study, intending an independent one.

In 1975, General Morris, as Chief of Engineers, you came back to this committee for more funds for a total of $2.6 million, including the initial $150,000. The previous year you had assured the Senate Public Works Subcommittee that you were interested in preparing an environmental analysis that would be fully credible. Senate Subcommittee of Committee on Appropriations Report of June 19, 1974, recall hearings, page 7077.

WASHINGTON POLICY GROUP

We have also been aware of a so-called "Washington policy group," comprised in part of outspoken canal opponents in Interior, CEQ, and EPA who have played some role in the study effort.

Before getting into the more detailed questions concerning various aspects of your restudy report I have several questions of a general nature.

OTHER PROJECTS INVOLVING WASHINGTON POLICY GROUP

Has there been any other corps' project undergoing an EIS, which has had a Washington policy group participating to the same extent

as in the restudy of the Cross Florida Barge Canal. First of all, General, has there been any other corps project?

General MORRIS. No, sir. I do not know of any other projects that have had this arrangement.

SELECTION OF CONSULTANTS FOR STUDY

Mr. CHAPPELL. We note that in appendix A to the EIS there is a list which reflects the use of some 13 contracts in addition to the corps' in-house efforts. Of the 13, about 7 of these were prepared by governmental units with a known long standing bias against construction of the Cross Florida Barge Canal. In view of the court's suggestion, was this solely a corps' decision or did any member or members of the Washington policy group make the recommendation that these groups should be engaged to prepare certain reports?

General MORRIS. I don't believe the Washington policy group became directly involved in that. However, there was a field coordinating group under the general leadership of the district engineer, and when decision items for contracting were made, this field coordinating group did participate.

Later on, in one instance that I can recall, there were some inquiries by members of this Washington policy group as individuals, but not as part of the group, questioning the qualifications of one or more contractors. That contract, however, was not changed and did continue.

So a short answer to your question is I don't think the Washington policy group influenced the selection of the contractors, at least not in my memory. However, the field coordinating group did have a significant role to play in selecting them, and the Washington policy group did review.

FINAL ENVIRONMENTAL IMPACT STATEMENT

Mr. CHAPPELL. Thank you, General.

I would like you to advise us as to whether the final EIS, dated February 1977, and filed with the court on February 22, 1977, copies of which were received by this subcommittee, is the final report on this canal project for which this subcommittee appropriated funds and which the court stated should be the basis for this subcommittee's recommendation to the Congress.

General MORRIS. That is correct. The February 1977 EIS filed is the final environmental impact statement.

Mr. CHAPPELL. And that is the one we have before us?

General MORRIS. Yes; sir, however, that report is under review at the present time. I did submit a report to the Secretary of the Army.

Mr. CHAPPELL. It is my understanding pursuant to the previous hearings in this matter that the committee requested that the corps file its report, when completed, with this committee. Is that the report which you filed in compliance with that committee request?

General MORRIS. That is correct, sir. My report was sent to the Secretary of the Army, and a copy was sent to the committee.

Mr. CHAPPELL. To the committee.

General MORRIS. Executive action on that report now rests with the Secretary of the Army.

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PROCEDURE FOR FILING FINAL EIS

Mr. CHAPPELL. So, insofar as the professional people in the Corps of Engineers are concerned this is the final report?

General GRAVES. Mr. Chairman, there is one procedural point. When the Secretary of the Army is filing a report, he is the one who officially files the environmental impact statement with the Council on Environmental Quality. So, from a procedural point of view, the impact statement has not been officially filed with the Council on Environmental Quality.

Mr. CHAPPELL. General Graves, I am not asking you whether it was filed with the Council on Environmental Quality. I am asking you whether or not this constitutes the final work, the professional work, done by the Corps of Engineers pursuant to the appropriations of this subcommittee?

General GRAVES. Yes, sir.

Mr. CHAPPELL. And his answer is?

General MORRIS. I would answer that affirmatively.

Mr. CHAPPELL. Thank you.

COMMENTS BY MR. WHITTEN

Mr. WHITTEN. Mr. Chairman, I have to be on the floor of the House at 12 o'clock, but I do have a real interest in this matter. I wonder if you would yield to me at this time for some brief comments.

Mr. CHAPPELL. I would be delighted to yield at this time to the distinguished gentleman from Mississippi.

Mr. WHITTEN. Thank you very much.

I frequently say in my district that Congressmen are elected by districts but once we get to Congress we not only represent our whole State, but our whole Nation. When I first went on the Appropriations Committee Joe Hendricks was a Congressman from Florida, and this subject was up then. This was in 1943. So I have lived with this Cross-Florida Barge Canal project since then.

But we do have a national interest in this barge canal. I have seen members from some areas of the country oppose the Saint Lawrence Seaway because they thought it would be too competitive, or maybe slow their own growth. I differ with them. I have seen some sections oppose the Bonneville Dam and other much needed water projects because they viewed the projects in a parochial way and could see no benefits for themselves. I disagree strongly with that type of narrow minded view. Although certain projects may provide the greatest benefit to the region nearby by creating jobs and aiding the economy and preevnting flood damages, these projects help the entire country.

HIGH-LEVEL CROSSING

In my own area, General Morris, General Feringa was the president of the Mississippi River Commission at the time the corps and the county attempted to eliminate what is known as the high level crossing, the Guns Crossing. They attempted to show me the county had taken money in settlement but the corps hadn't gotten a release from the county.

I said, "You are forgetting the public. There is no way under the sun for the corps or any county or unit to agree the public's interest away."

So we ended up getting that high level crossing. The people against the crossing objected mainly on the basis of cost. I maintained that although the crossing would be costly, in the long run it would be much cheaper than the cost of making people go 80 miles out of their way in order to cross the water.

SANDHILL CRANES

In my State of Mississippi they have Interstate Highway No. 10 going along the coast. I am the Yankee member of my State. I am up in the north part, so it is not in my area. But here is an interstate highway from the west coast to the east coast, and because of about 8 to 10 endangered sandhill cranes construction on the highway has not been completed. Now we are working that out where we are going to find a place to let the cranes settle and take care of them, and finish the highway.

The point I am trying to establish here is that we have to look at all the costs and benefits of these projects. Currently, to ship material from the gulf coast to the east coast, instead of crossing Florida you have to go down to the tip of Florida and back up the other side. Let's just think of the additional cost of extra transportation if we carried out part of the President's energy message of last night.

EFFECTS OF INCREASED COAL USE

Let's say that he succeeds in getting us to expand the use of coal. I was about 4 years ahead of him. I had an investigation about 4 years ago about energy and it showed our answer was coal.

A considerable portion of the coal reserves of the country are located in the general area of West Virginia, Kentucky, and Tennessee. If that coal is used as the President is suggesting for all those who can use coal on the east coast, how much extra is it going to cost to send it around the toe of Florida and up the east coast instead of going across Florida, using the Cross Florida Barge Canal? How much more time is it going to take when they are running short of fuel in the Northeast?

ENVIRONMENTAL CONCERNS

Now, let's talk about environment. Who is to judge as to what is good environment? I have seen environments that most people would pronounce good where the pollen from some of the plants made it anything but a desirable environment for those who suffer from hay fever and allergies. From the beginning of time mankind has been changing the environment to fit his needs. This country has done better than any I know and that is the reason we have the high standard of living which in turn enables us to help a lot of other countries. We are helping all these countries that were too shortsighted and wouldn't save today to develop tomorrow.

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WATERWAYS OF EASTERN UNITED STATES

Is it possible to put a map in the record? I would like it to show the waterway system of the Eastern United States and the integral role the Cross Florida Barge Canal could have in it.

General MORRIS. Yes, sir.

Mr. WHITTEN. If you could do that I would appreciate it.

[The map follows:]



POSSIBLE SOLUTION TO IMPASSE

Maybe there is some reason, General Morris, to delay and try your best to get these people together. We tried that in my section on this upper auxiliary channel but they never would get together. So I wrote some report language for this committee that if they didn't get together by a certain date the corps would decide it. The corps did have to decide it, but we got it moving forward.

I don't know that that is the answer here. But if the problem is that the folks don't want to get together, the Congress should give you instructions to give them a reasonable length of time to decide after which a decision will be made in any event. Because this project interests the whole country, not just Florida.

I suspect that south Florida thinks that this might injure them a little bit and it might develop north Florida, knowing how such things are. I see it in my State. We have a lot of argument about whether we in the northern part of the State should provide all of this money for the Mississippi gulf coast when they have so many things we haven't, and they wonder why they should, and so I imagine sectionalism is involved in this.

ESTIMATE OF COST SAVINGS

Could you provide us an estimate of what will be the cost over 10 years to move coal around the tip of Florida and back up the east coast, compared with the cost if the Cross Florida Barge Canal is completed?

Also, compare the costs involved over the life of the project. Could you supply estimates on that?

General MORRIS. Yes, sir, we can provide an estimate.

[The information follows:]

COST OF COAL TRANSPORT TO FLORIDA

The movement of coal to Florida will be for domestic steam production use by powerplants. The source of coal will be the Illinois-Kentucky coal fields. The Mississippi River system and the Cross-Florida Barge Canal provide the most economic delivery route for Florida-destined coal. Water alternatives via New Orleans and the Gulf of Mexico around Key West to Jacksonville, Fla. were found to be more costly than rail shipment. Therefore, the economic analysis used unit train rail rates as the alternative without the canal.

Savings for coal shipments using the Cross Florida Barge Canal are as follows for a prospective movement from Shawneetown, Ill., to Jacksonville, Fla.:

Rate per ton via unit train	$9.70
Rate per ton via barge	7.20
Net saving per ton	2.50

The prospective tonnage of 2 million tons annually at $2.50 saving per tons amounts to an annual saving of $5 million for the life of the project. For a 10-year period the savings would total $50 million. For the 50-year life of the project the savings would amount to $250 million. These benefits are not claimed in the benefit analysis included in the Detailed Economic Restudy Report.

FUTURE FOR CROSS-FLORIDA BARGE CANAL

Mr. WHITTEN. I don't know how anybody could differ with your estimates. They could argue about their own views. If you come up

with an estimate I don't know anybody who could find fault with it. But I would like to have some indication because we are dealing here with a local problem from their viewpoint, but it is a national canal and how long we should put up with this difference of opinion, how long we should let them have to get together before we go ahead with something, is open to question.

General MORRIS. All right, sir, fine. I think we have most of that data.

Mr. WHITTEN. Do you see any evidence of the different parties involved getting closer together or getting wider apart? What is the situation?

General MORRIS. I think that the positions are very clear and they are far apart.

Mr. WHITTEN. I had that in my area. Every time you had a hearing they lined up on different sides of the hearing room, but then when we did get together, I don't think we have had any more problems on it.

General MORRIS. In this issue, sir, you can look right or left, and there are a lot of people on both sides and they are far away.

Mr. WHITTEN. I do think we are overlooking the national interest in this project.

I wish you would supply the information that you can and supply any suggestions that you might have for the record, of any course that the committee might follow that in your opinion might help bring the thing to a head and bring it together.

I want us to keep the changes in the environment to a minimum. I want us to do what we can on the endangered species to see they are not lost. I am going to advocate in the Appropriations Subcommittee on Interior that we find a new habitat for the sandhill cranes that are holding up the interstate highway. Hopefully a solution can be found for the Cross Florida Barge Canal, too.

Thank you, Mr. Chairman.

Mr. CHAPPELL. Thank you, sir.

Mr. WHITTEN. Off the record.

[Discussion off the record.]

Mr. CHAPPELL. General, I neglected one thing before we got into the questioning and that was to give you an opportunity to put in the record anything you have with you or you may read it into the record, as you desire.

STATEMENT OF GENERAL MORRIS

General MORRIS. Sir, I have a very brief opening statement. However, I think in view of the familiarity of the committee with the total project I would put what I have here in the record.

Mr. CHAPPELL. Why don't you put it in and then elaborate any way you like.

Without objection the statement is received at this point.

General MORRIS. The conclusions and recommendations which I have are in my report. I will just submit this statement for the record.

[The statement of General Morris follows:]

CHIEF OF ENGINEERS REMARKS ON THE CROSS-FLORIDA BARGE CANAL

Mr. Chairman and members of the committee; my remarks on the Cross-Florida Barge Canal restudy will be very brief. In addition to General Graves, I have

with me Colonel Wisdom, district engineer; Mr. Jim Garland, Chief of the Engineering Division; Mr. Sam Eisenberg, project manager, and Dr. Lloyd Saunders, Chief, Environmental Branch, all of the Jacksonville district.

With your permission, I would like to submit for the record the full text of my report to the Secretary of the Army dated February 24, 1977, then highlight certain portions for the committee today.

Let me begin by noting that this restudy was done at the specific direction of this committee. It was a large effort, involving many agencies—Federal and State—costing over $2.5 million, and lasting nearly 3 years. I believe that the study developed ample information to support certain conclusions:

(1) Construction of a barge canal across Florida is feasible from an engineering standpoint.

(2) The economic justification must be considered marginal until such time as significant additional transportation savings or regional economic development benefits can be clearly supported in excess of their associated costs.

(3) When the marginal economic justification is combined with adverse environmental impacts, the combined total effect does not favor completion.

(4) The final determination of the public interest should rest with Congress.

(5) Congress should modify the project authorization only after deliberation to determine a definitive position on whether to complete the project, retain and operate it in its present status, or adopt some other configuration.

(6) The administration should not seek further funding for this project other than may be necessary to assist Congress in reaching a decision and to maintain existing facilities in the interim.

Based on the foregoing conclusions, I recommended that Congress authorize and direct the Secretary of the Army, acting through the Chief of Engineers, to—

(1) Terminate all activities leading toward the completion of a canal;

(2) Undertake a supplemental study in cooperation with the Department of the Interior, Department of Agriculture, Environmental Protection Agency, and State of Florida to determine the best disposition and use of canal facilities and lands;

(3) Operate and maintain completed facilities pending congressional action.

My report is currently under review and consideration in the Office of the Secretary of the Army.

Mr. Chairman, this concludes my remarks. I would be pleased to answer any questions.

General MORRIS. I would like to suggest at an appropriate time when you want to talk about details of the projects that we let Colonel Wisdom merely describe the most attractive completion alternative and the most attractive noncompletion alternative.

Mr. CHAPPELL. All right.

ATTENDANCE BY MEMBERS OF THE FLORIDA CONGRESSIONAL DELEGATION

Congressman Bennett, who is kind of the father of this canal in Florida, was here and, as you know, the House is in session, committees are in session, we are having some difficulty today in working this matter through but we did want to try to complete it today. That is the reason we are asking you to continue.

General MORRIS. Yes, sir, I understand.

Mr. CHAPPELL. Congressman Bennett and Congressman Sikes asked that the record reflect their attendance here.

Mr. CHAPPELL. Are there others of the Florida delegation who have representatives here who ought to be reflected in the record.

Mr. ROWEN. I am Bruce R. Rowen III, legislative assistant to Senator Richard Stone of Florida.

Mrs. MCKINNON. I am Mrs. Geneau H. McKinnon, legislative assistant to Congressman Bafalis of Florida.

Ms. SMITH. I am Ms. Marlene Smith, office manager of Congressman Richard Kelly's office.

Mr. SAULS. I am Steve Sauls legislative assistant in Congressman Andy Ireland's office.

Mr. CHRISTIANSEN. I am Kim Christiansen, legislative correspondent to Senator Chiles of Florida.

Miss O'CONNELL. I am Maureen O'Connell, legislative assistant to Congressman Paul Rogers of Florida.

COMPLETION AND NONCOMPLETION ALTERNATIVES

Mr. CHAPPELL. If you will submit your names for the record, I would appreciate it.

General, at this point I think your suggestion is good that the colonel, Colonel Wisdom, who is the district engineer in Florida, tell us the status of this project and what your recommendations would be with refernce to further construction if it were funded.

Colonel WISDOM. Yes, sir.

Mr. CHAPPELL. You may proceed.

SELECTED ALTERNATIVE

Colonel WISDOM. Mr. Chairman, members of the committee, this is our selected alternative.

[Chart.]

COMPLETION ALTERNATIVE

Selected

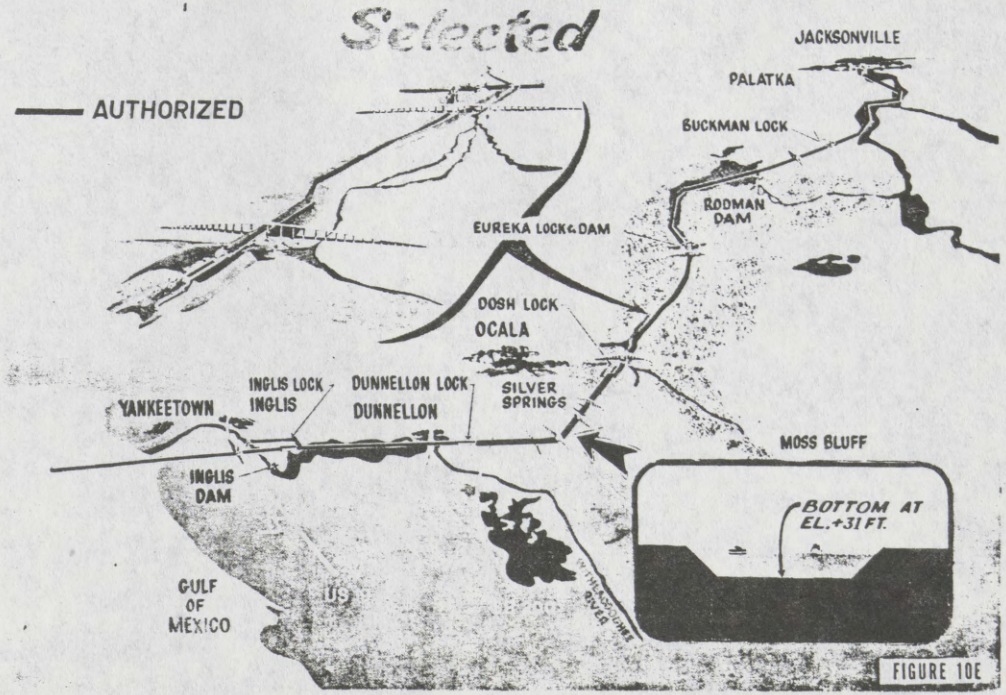

FIGURE 10E

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The Jacksonville District, together with other agencies, went through a rather exhaustive analysis of modifications to the authorized alinement, to determine the best possible way of completing the canal. After completing this rather extensive analysis, it was determined that the authorized alinement could be modified to minimize any possible disruption of the environment.

Let me point out the significant features here.

As you probably all know, the canal starts in Jacksonville in the northeastern part of the State and runs on down here to Yankeetown in the southwest.

The canal would be 110 miles long, 12 feet deep, and 150 feet wide.

The main features are: Three dams, one each at Rodman and Eureka and another at Inglis. These three dams have already been completed. There are also five locks required, three of which have been completed.

There are 11 highway bridges that would be constructed, four of which have been completed. Two railroad bridges would be constructed, which have not been completed.

The cost of the project construction to date to the Federal Government is about $60 million. Land acquisition costs have been roughly $14 million.

Mr. CHAPPELL. Who provided the $14 million?

Colonel WISDOM. The counties that line the canal route, through the canal authority of the State of Florida.

Mr. CHAPPELL. That was pursuant to a local assessment on the real property owners along that canal route, is that correct?

Colonel WISDOM. I believe that is correct, sir.

Mr. CHAPPELL. Go ahead, Colonel.

Colonel WISDOM. All right, sir.

In order to minimize any possible environmental damage, from Eureka lock and dam down to Bert Dosh lock, we propose to change the alinement of the canal to move out of the Oklawaha River Swamp. We have moved the alinement 1 mile north and west of the existing alinement of the river to a new upland location. The new alinement would move that portion of the canal out of the Oklawaha River. The new alinement would also prevent damage to the Dead River Swamp area which was a major environmental consideration. Of course, the changed alinement would add additional cost to the project.

In the Summit Reach area, which is some 28 miles long, there was some question about the possible damage that might be done if we dug into the aquifer. We propose to modify the project by elevating the botton prism by some 3 feet thereby lessening the possibility of damage to the aquifer.

The other modification that we propose is at Inglis Dam where we would modify the gates of the dam structure to remove weeds and aquatic plants and improve water circulation.

We feel that these proposed modifications to the project are the best environmental quality plan.

Mr. CHAPPELL. Colonel, what is the total cost, estimated cost, based on this new alinement?

Colonel WISDOM. This would be about $250 million, in addition to costs already incurred.

Mr. CHAPPELL. At this point, do you have any questions, Mrs. Boggs?

Mrs. BOGGS. No; thank you, Mr. Chairman.

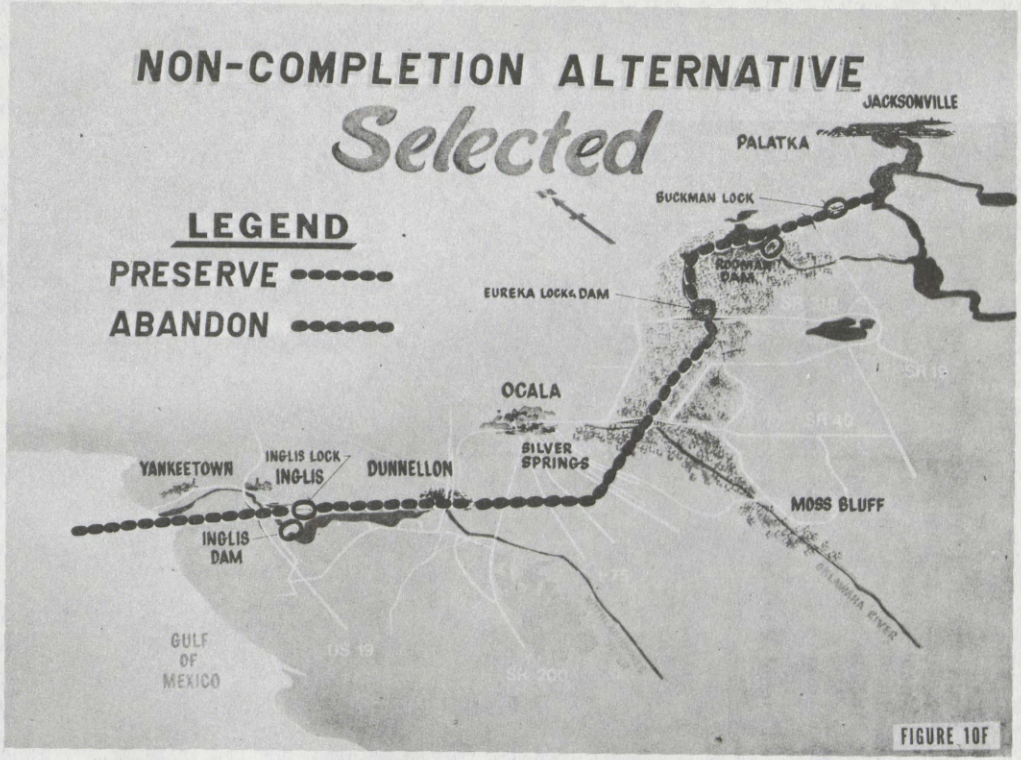
Mr. CHAPPELL. Thank you, Colonel.

Colonel WISDOM. I also would like to present the selected noncompletion alternative, sir.

Mr. CHAPPELL. Go ahead.

NONCOMPLETION ALTERNATIVE

Colonel WISDOM. The noncompletion alternative is here.


NON-COMPLETION ALTERNATIVE
Selected
LEGEND
PRESERVE
ABANDON
JACKSONVILLE
PALATKA
BUCKMAN LOCK
ROSMAN DAM
EUREKA LOCK & DAM
OCALA
SILVER SPRINGS
YANKEETOWN
INGLIS LOCK
INGLIS
DUNNELLON
INGLIS DAM
MOSS BLUFF
GULF OF MEXICO
SR 19
SR 40
SR 200
FIGURE 10F

In addition to selecting a completion alternative, we were also asked to select a noncompletion alternative. In doing this we examined many different combinations of abandoning, restoring, and preserving various segments of the project. From these various combinations we selected seven for further study. Finally, we selected one alternative as being the best plan for noncompletion of the project. The various elements of the selected plan are as follows: We propose to abandon that area of the project in the St. Johns River to the beginning of the canal, Eureka lock and dam, and the entire Summit Reach. The remainder of the project would be preserved.

That was the selected noncompletion alternative. We feel that this noncompletion alternative would be the least environmentally damaging, the most economical, and still be engineeringly sound.

These two alternatives were selected as being the best plans for completing or not completing the project.

WASHINGTON POLICY GROUP MEMORANDUM

General MORRIS. Mr. Chairman, to complete the story of the alternatives, I have received a memo from the Washington Policy Group, in which the Washington Policy Group chose the best completion and best noncompletion alternatives. This memorandum is signed by the Assistant Secretary of the Interior for Fish and Wildlife and Parks, the Director of the Office of Federal Activities, EPA, a representative of the U.S. Department of Agriculture, and the Chairman of the Council on Environmental Quality.

You have this as part of my report, but in summary——

Mr. CHAPPELL. Where is it reflected in your report?

General MORRIS. It is an enclosure to my letter to the Secretary of the Army.

Mr. CHAPPELL. Then it is before the committee?

General MORRIS. Yes, sir, it is.

Mr. CHAPPELL. Go ahead.

General MORRIS. I was pointing out that the Washington Policy Group agrees with the selected completion and the selected noncompletion choices. They do not in any way, however, want any interpretation of their position to support the completion option. They make that very clear.

Mr. CHAPPELL. As a matter of fact, General, that particular group never changed its position from the beginning until the conclusion, did it?

General MORRIS. Well, I can only speak for their final position. I was not that intimate with each individual's position as the study progressed, but they came out solidly——

MEMBERS OF THE WASHINGTON POLICY GROUP

Mr. CHAPPELL. Interior, who is the official in charge of the two Interior units that participated?

General MORRIS. Mr. Reed was Assistant Secretary.

Mr. CHAPPELL. Is that Mr. Nat Reed?

General MORRIS. Yes, sir, Mr. Nat Reed.

Mr. CHAPPELL. He has been a long-known opponent to the canal, has he not?

General MORRIS. Yes, sir, he has.

Mr. CHAPPELL. What about the others?

General MORRIS. Mr. Busterud, chairman of the Council on Environmental Quality. I have no knowledge of his previous position.

Miss Rebecca Hanmer, EPA, I simply do not know she had any predetermined position, nor am I familiar with any position of Mr. Vander Myde.

Mr. CHAPPELL. Who is he?

General MORRIS. He was Deputy Assistant Secretary, Conservation and Research, Department of Agriculture, at that time.

Mr. CHAPPELL. Anything else you want to add at this time, General?

General MORRIS. No, sir, I have nothing to add.

ENVIRONMENTAL IMPACT STATEMENT

Mr. CHAPPELL. General, let's move on to ask some specific questions so we might fully understand the report. Wherever you like, General, you may just refer the question to those who are with you, or the experts that you have with you.

Did the Chief of Engineers submit a final environmental impact statement in February to Federal Judge Bechtle in response to the court order of his predecessor, Judge Harvey Johnsen?

General MORRIS. The word "final" bothers me.

General GRAVES. We gave him the complete set of documents that the committee has.

Mr. CHAPPELL. He had given you a specific date that was to be the final date?

General GRAVES. That is right.

Mr. CHAPPELL. So you complied with the order?

General GRAVES. That is right.

General MORRIS. We did.

Mr. CHAPPELL. That is, of course, the identical impact statement that is presently before this committee, is it not?

General MORRIS. Yes. The word "final" bothers me a bit.

Mr. CHAPPELL. I understand.

General GRAVES. But it is the precise document that the committee has, Mr. Chairman.

Mr. CHAPPELL. It is labeled "Cross Florida Barge Canal Restudy Report Final Summary," dated February 1977.

General GRAVES. That is correct.

Mr. CHAPPELL. That is the one we are all referring to?

General GRAVES. That is right.

Mr. CHAPPELL. Together with the final environmental impact statement?

General GRAVES. That is correct.

Mr. CHAPPELL. These are in essence the two documents, right? I suppose there are others.

General GRAVES. There are appendices.

Mr. CHAPPEL. But this is what we are talking about?

General GRAVES. Yes, that is it.

Mr. CHAPPELL. All right.

Of course, these are the same ones that were forwarded to the President's Council on Environmental Quality and circulated to the various agencies in accordance with CEQ regulations?

General GRAVES. The final EIS has not been filed with CEQ. The Secretary of the Army will file the EIS when the administration completes its review of the report.

Mr. CHAPPELL. You have alluded to some of these. I want to be sure we have a complete understanding.

General, has this statement—I am talking about the one filed with the committee—put forward by the corps been changed or amended in any way since it left the Chief of Engineers' Office?

General MORRIS. The answer is no, sir, insofar as the corps' report is concerned.

Mr. CHAPPELL. Do you know if it was changed by the Chief after it left the District Engineers' Office?

General MORRIS. The report was not changed. However, I did put a cover letter on it.

Mr. CHAPPELL. That cover letter is of course before the committee, is it not?

General MORRIS. I presume it is.

Mr. CHAPPELL. I think it is in the record.

General MORRIS. Yes, it is.

COMPARISON OF DATA IN ENVIRONMENTAL IMPACT STATEMENT

Mr. CHAPPELL. So we have that.

Does this statement, the one before the committee, coincide with the information furnished the Florida Governor and cabinet in corps briefings in January 1977?

I suppose, Colonel Wisdom, you had best answer that.

Colonel WISDOM. Sir, there is one major difference. That was in the benefit-cost ratio. Since coal was deleted from the benefit base, the benefit-cost ratio was reduced from 1.27 down to 1, or unity. The net excess of benefits over costs was reduced to $48,000 per year.

Mr. CHAPPELL. What you are saying I think is that at the time you presented the report to the Governor of Florida, you included coal in it and, including coal, you come up with a benefit-cost ratio, taking everything into account—that your report took into account at that time—you came up with a—let me ask you what cost-to-benefit ratio did you come up with at the time?

Colonel WISDOM. 1.27.

Mr. CHAPPELL. 1.27.

USE OF SUNK COSTS IN BENEFIT-COST RATIO

Now at that time did you take into account, in arriving at the 1.27-to-1 ratio, sunk costs?

Colonel WISDOM. Yes, sir.

Mr. CHAPPELL. Sunk costs were a part of that figure?

Colonel WISDOM. Yes.

Mr. CHAPPELL. Is that a customary procedure with a project of this kind that has improvements in place and in use, is it normal, is that normal and usual procedure, to take sunk costs into effect? Or is it not customary, Colonel, to take—if you are at this point and you have part of the project that is in place and in use, is it not customary to take only the amount necessary to complete the project into account in figuring benefit-to-cost?

Colonel WISDOM. Sir, I think the problem is that this is not a usual project.

Mr. CHAPPELL. You can say that again.

Colonel WISDOM. Yes, sir. In lieu of analyzing the Cross Florida Barge Canal as a new start leaving out sunk costs, and using a new interest rate, we used the old interest rate, the legal interest rate of 2⅞ percent, and included the sunk costs.

DIFFERENCE IN BENEFIT-COST RATIO USING SUNK COSTS

Mr. CHAPPELL. I see. I do not want to belabor the point, but what you are really saying is that had sunk costs, whether they were proper or improper, had sunk costs been eliminated, the benefit-to-cost ratio would have been even better than 1.27; that is what you are saying?

Colonel WISDOM. Yes, sir, that is correct.

Mr. CHAPPELL. And I am not arguing here at the moment which one was right. I am simply trying to get it clear.

I notice on page 22 of the final summary you have a chart there showing the various benefit-to-cost ratios under certain circumstances. I notice that when you include coal shipments, area redevelopment assistance, and 10 percent contingent benefits, you come up with a benefit-to-cost ratio using the legal rate of 1.46; is that correct?

Colonel WISDOM. Yes, sir, that is correct.

Mr. CHAPPELL. So you are saying to the committee that in your report, had you taken into account in the final analysis the factors which you took into consideration in the first report to the Cabinet, you would have had a substantially higher benefit-to-cost ratio in the final report?

Colonel WISDOM. Yes, sir, that is correct.

Mr. CHAPPELL. Now, with sunk costs, included, and using the legal discount rate for the project, what was the benefit-to-cost ratio determined in your report?

Colonel WISDOM. At what time, sir?

Mr. CHAPPELL. In your final report.

Colonel WISDOM. In the final report, it is one.

Mr. CHAPPELL. One to one?

Colonel WISDOM. Yes, sir, the benefit-cost ratio is 1 to 1.

BENEFITS NOT INCLUDED IN BENEFIT-COST RATIO

Mr. CHAPPELL. Right.

And you did not take into account coal in the final analysis, though you did in the beginning, and the reason for that was, if I understand it, that the city of Jacksonville had not, although it had agreed it was going to coal, that it had not identified a source for that coal; is that correct?

Colonel WISDOM. That is correct.

Mr. CHAPPELL. And had you included the coal, then obviously it would have been a factor of substantial importance in increasing the benefit-to-cost ratio?

Colonel WISDOM. Yes, sir, that is correct.

Mr. CHAPPELL. It is my understanding also in the final analysis that you did not take into account the area benefits; is that correct?

Colonel WISDOM. That is correct.

Mr. CHAPPELL. And had you taken those into consideration it would have substantially enhanced the benefit-to-cost ratio?

Colonel WISDOM. Yes, sir, that is correct.

Mr. CHAPPELL. Did you take into account the 10-percent contingency?

Colonel WISDOM. No, sir, we did not.

Mr. CHAPPELL. Had you taken into account the 10-percent contingency, would that have further enhanced it?

Colonel WISDOM. Yes, sir, it would.

Mr. CHAPPELL. And if I understand it, then, the final would have been 1.46, had you taken them all into consideration?

Colonel WISDOM. With each one of those items you mentioned, yes, sir.

Mr. CHAPPELL. If those three items I mentioned had been incorporated in the study, then the benefit-to-cost ratio would have been 1.46 right?

Colonel WISDOM. Yes, sir, that is correct.

CONSIDERATION OF AREA REDEVELOPMENT BENEFITS

Mr. CHAPPELL. Now, is it not true that to make the project eligible for taking into area redevelopment benefits that you have to have at least a 1-to-1 ratio?

Colonel WISDOM. The area redevelopment benefits, yes, sir.

Mr. CHAPPELL. The area benefits?

Colonel WISDOM. Yes, sir, the area redevelopment benefits.

Mr. CHAPPELL. You have to have a 1-to-1 ratio. You had that in this instance. Why did you not take them into consideration?

Mr. CHAPPELL. Or did you in the beginning and were they later removed?

General MORRIS. Sir, I had better answer that, rather than Colonel Wisdom.

POLICY ON AREA REDEVELOPMENT BENEFITS

This whole business of area redevelopment benefits is under consideration as a policy issue within the Secretary of the Army's office.

In this particular instance, we need to establish the Department of the Army and the Corps of Engineers policy computing area redevelopment benefits.

Mr. CHAPPELL. The law provides for it already, does it not?

General MORRIS. It does. This was a 1-to-1 situation. The policy problem, combined with that very delicate balance in economics, precluded our including them in this report.

Mr. CHAPPELL. The main reason that you did not include them, General, is the reason you told me, is it not? You simply did not have time after the passage of the law and the fact this study was so far along and the principal reason was you did not have time?

REGIONAL ECONOMIC DEVELOPMENT BENEFITS UNDER SECTION 140

General MORRIS. That is regional economic development benefits. That is a different benefit category.

Mr. CHAPPELL. That is the regional economic benefits under section 140.

General MORRIS. Yes, sir. With regard to regional economic development benefits, you are absolutely right.

Mr. CHAPPELL. Let met get the record straight now.

We have been talking about three items which were not included.

General MORRIS. Yes, sir.

Mr. CHAPPELL. That is the coal, the 10-percent contingency, and the area redevelopment benefits?

General MORRIS. Yes, sir, that is correct.

Mr. CHAPPELL. Now we are talking about a fourth which was not included, which was regional economic benefits.

General MORRIS. That is correct.

Mr. CHAPPELL. Here is a fourth which was not included. All right.

REASON FOR NOT INCLUDING REGIONAL ECONOMIC DEVELOPMENT BENEFITS

General MORRIS. The fact that regional development benefits were not included was really a decision on my part. The law which allowed us to include them was passed in the fall, but I was required by the court to get a report to the judge in February. We looked quite a bit at the regional economic development benefits in considering secondary impacts of this project. We felt that, first of all, there was not enough time to prepare a regional economic development benefit analysis study and still meet the court requirement and, second, we did not have any feeling that it would have made a major difference.

Mr. CHAPPELL. Are you saying you simply did not have enough information?

General MORRIS. We had quite a bit of information, but it looked like it was not going to make a significant difference. However, the underlying problem was that we did not have time to make an additional analysis unless we requested another delay from the court. I did not want to do that, so we submitted the report without it.

Mr. CHAPPELL. Thank you, General.

EXCLUSION OF COAL TRANSPORTATION BENEFITS

Now let me talk about the coal just a moment.

Why was not coal used, General? It was used in the report to the Governor and cabinet in December 1976 but it was taken out, I assume, at the Atlanta level. Of course, I recognize now and I commend you people on being overly cautious, on being just as cautious as you could be, because everybody was on your neck, both sides. You were trying to be extremely cautious in these matters. So you wanted to be sure that you were really on the right side; is that not really true? You wanted to be certain you were giving every benefit of the doubt to the side against the canal? Is that not right, Colonel or General?

General MORRIS. I would put it differently. I would make sure every benefit could be fully justified.

Mr. CHAPPELL. That you could justify? That is another way of saying the same thing, right?

General MORRIS. Yes, sir, that is right.

Mr. CHAPPELL. Then we come to this question—I am not trying to cut the general off; I want to get to the factor that I think the record needs to clarify.

General MORRIS. I am glad you did.

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REASON FOR EXCLUSION OF COAL TRANSPORTATION BENEFITS

Mr. CHAPPELL. Why was not coal taken into account, General—put it this way: Why was it taken out at the regional level?

General MORRIS. Sir, I would like to point out that the taking out of benefits in a review process is not peculiar to the Cross Florida Barge Canal.

Mr. CHAPPELL. I understand that.

General MORRIS. We took coal out in this case because we did not feel that the commodity movement by water transportation was sufficiently firm to include it as a transportation savings.

Mr. CHAPPELL. All right.

You had testimony, you had evidence, you had a position paper from the Jacksonville electric authority that made it perfectly clear that they were going to coal, no question about that, is there?

General MORRIS. We had a letter from the Jacksonville electric authority to the effect that that was their intention. But there were analytical data not present that we needed before we could include it.

Mr. CHAPPELL. That may be. But there was not any question—maybe this is something you are not—and I am not trying to put the general on the spot. That is not the intent or purpose at all.

General MORRIS. I understand.

Mr. CHAPPELL. It is my understanding, General, that what occurred here was that the city of Jacksonville had made it perfectly clear they were going to coal, no question about that, was there; coal?

Colonel WISDOM. That is right.

Mr. CHAPPELL. There was no question about that?

Colonel WISDOM. They were going to use coal.

Mr. CHAPPELL. The question was, they had not identified the source sufficiently to meet your satisfaction?

EFFECT OF SOURCE OF COAL ON TRANSPORTATION

General GRAVES. It is a technical problem which I should explain. That is, the benefit is the rate saving in the movement. Therefore, in order to compare the cost of moving it by barge with the cost of it by some other mode, in order to get the net benefit, we need to know where it is coming from, because it is conceivable that if it were coming from another source the saving would be different or nonexistent.

We could have included the benefit since the use of the coal was firm. However, knowledgeable people could come up with other sources for that coal where the saving would not be there. Therefore, that benefit was vulnerable.

Mr. CHAPPELL. But General, that was taken into account at the district level because the computation was made there, not on the basis of $3.75 but on the basis of $2.50 for the very reason you are talking about, so you took it into account, no question about that.

General GRAVES. As I recall, there was another source of coal where there would be no saving at all.

Mr. CHAPPELL. Am I not correct that in the beginning you took into account savings based on $2.50 per ton, rather than $3.75, because you were not sure from which region, so again you used the smaller figure; is that not correct?

Colonel WISDOM. Sir, there was a wider range than that. What General Graves said is true. There was a minus benefit; in other words, there was a source of coal that would not produce a cost savings by using barge transportation rather than rail. In other words, you would lose money by shipping by barge.

Mr. CHAPPELL. Obviously, if you brought it from near the Canadian border and trucked it or railroaded it down to some point on the west coast of Florida and put it on a barge and brought it through, we all agree with that. I am not trying to belabor the point except to get to the point of the real question of why it was eliminated.

UNDETERMINED SOURCE OF COAL FOR JACKSONVILLE, FLA.

If you cannot give an answer, let me suggest one to you. Is not the real answer that you did not feel that the city of Jacksonville had a contract with the source of coal?

Colonel WISDOM. They did not have a located contract; yes, sir.

Mr. CHAPPELL. Trying to help further on this matter, as a matter of fact the city of Jacksonville is having an ongoing study now to try to determine that source?

Colonel WISDOM. Yes, sir, that is correct.

Mr. CHAPPELL. So you are really saying at the time you made the determination you did not have sufficient information within your own determination that made you feel you had the source tied down; is that not right?

General MORRIS. That is correct.

Colonel WISDOM. That is correct.

Mr. CHAPPELL. So really you are out of phase with the city of Jacksonville about 6 or 7 months, is that not right?

Colonel WISDOM. Yes, sir, that is right.

Mr. CHAPPELL. That is the study to be finished 3 or 4 months from now, which would have been about 6 months from the time you finished your report. Those are the real facts?

General MORRIS. That is exactly right.

Colonel WISDOM. Yes, sir, that is right.

Mr. CHAPPELL. That is what I was trying to get at. I would ask this question along that same line.

In any event, in order to use such a factor, you would not require that the city of Jacksonville have a contract with the source, would you?

General MORRIS. No, sir, we would not require that.

Mr. CHAPPELL. You just do not do that in any project, do you?

General MORRIS. We have to have a high degree of confidence though, that that product will move in order to accept it as a benefit.

Mr. CHAPPELL. I understand that. That is the reason on some of these other benefits along the way, some $600,000 that you found in hearings, even though there was no contract there, there was a feeling on the part of the corps that even though there is no contract there, you felt good about putting them in.

I was trying to get clear in my own mind the difference between the city of Jacksonville's coal situation and some of those others where they simply said they were willing to be a user.

General MORRIS. I think another factor too, sir, is the knowledge that the city of Jacksonville was going to firm up their use of coal, with a study or some other type of investigation.

Mr. CHAPPELL. So what you are saying in summary—and I am going to get off the economics of it—what you are really saying in the final summary is that if you take these matters under consideration, you come up with a benefit-to-cost ratio of 1.46, at least, to 1.0; that is what you are saying?

General MORRIS. Yes, sir, that is right.

BENEFIT-COST RATIO USING REGIONAL ECONOMIC DEVELOPMENT BENEFITS

Mr. CHAPPELL. And that B–C ratio would be further enhanced if regional economic benefits were included. Am I correct?

General MORRIS. That is correct.

Mr. CHAPPELL. Which means that you could run 1.58 benefit to cost, or much higher, as has been calculated in some of the determinations; isn't that right, Colonel?

Colonel WISDOM. Yes, sir, regional economic development benefits would increase the benefit-cost ratio.

Mr. CHAPPELL. So we understand then the real economic impact of the study, this committee probably at some future time would want to know whether or not additional studies are necessary.

NEED FOR FURTHER ENGINEERING STUDIES

General, I pose you this question. Do we need any more engineering studies?

General MORRIS. Sir, my conclusion was we do not. Unless you change the alinement and make some significant change in the project, the engineering studies are adequate prior to going to construction.

Mr. CHAPPELL. That would only relate if you change alinement?

General MORRIS. Yes, sir, that is correct.

Mr. CHAPPELL. Are you speaking of the one——

General MORRIS. I am speaking of the selected route.

Mr. CHAPPELL. Which you call the Eureka to Bert Dosh Upland?

Colonel WISDOM. Yes, sir, that is right.

Mr. CHAPPELL. Isn't that the one?

Colonel WISDOM. Yes, sir, that is the one.

General MORRIS. We did enough engineering studies on all of these. If you are talking about additional engineering studies on any one of those alinements, we don't need any.

Mr. CHAPPELL. That is what I am talking about. If you are talking about that alinement, and that is your preferred alinement, you don't need any more engineering studies.

NEED FOR ADDITIONAL ECOLOGICAL STUDIES

Do we need any more ecological studies?

General MORRIS. I don't believe so, sir.

Mr. CHAPPELL. You have about environmentally studied this one to death, haven't you?

General MORRIS. Most of that $2.6 million, at least a large percentage of it, went into studies on that very subject, and again, if we don't change the alinement, I think we are in good shape.

ADDITIONAL ECONOMIC STUDIES

Mr. CHAPPELL. One final question on economics. If you were to determine the full economic impact at this point you would need to have the four items that I specified to you. Would you have to have further study with reference to the economics only with reference to those four items, is that right? I am talking about the coal situation, the 10-percent contingency, the regional economic benefits, and the area redevelopment benefits.

Colonel WISDOM. Yes, sir, that is correct.

Mr. CHAPPELL. Would you need some more study on that, General?

General MORRIS. Yes, sir, we would.

Actually I think the only one of which I have any concern is the coal. We do need certainly to know more about that. There may be other benefits also which would affect the economic analysis but those four items certainly are key elements.

Mr. CHAPPELL. Those are the prime ones. You may pick up some other pluses along the way. You might even bump into a minus. But essentially those are the big ones, isn't that right?

General MORRIS. Yes, sir, that is right.

COST OF ADDITIONAL ECONOMIC STUDIES

Mr. CHAPPELL. Do you have any idea what additional moneys would be necessary at this time?

If you don't you can give it to us later.

Do you have any estimate on what such a study would cost?

General MORRIS. No, sir. I would like to give that to you later.

Mr. CHAPPELL. I am not even asking for the record at the moment. We can make some determinations without that.

General MORRIS. Colonel Wisdom says he can prepare the studies for $300,000. He can complete the studies within a year.

Mr. CHAPPELL. Do it within a year at a cost of something under $300,000.

I would like to move if I might then, Colonel Wisdom, to questions I think would be most fairly directed to you.

ENGINEERING AND ENVIRONMENTAL QUESTIONS

There are a number of important engineering and environmental questions which have been raised at various times which are addressed in your EIS restudy report. To make sure these questions are highlighted for the record I would like to get your comments, and of course please feel free to call on any of your assistants if you like.

I consider it admirable that you people have been able to put together this report which I think is very favorable to the canal. At times, when you first look at the summary volume without looking into the report in depth you get a different impression.

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PROPER ENGINEERING CAN PREVENT ANY DAMAGE

Colonel, is there any damage foreseeable in the construction of this canal that could not be completely eliminated with proper engineering?

Colonel WISDOM. That is right, sir.

Mr. CHAPPELL. Your answer is no, there are no damages that would occur or would accrue that could not be overcome with proper engineering?

Colonel WISDOM. That is correct.

Mr. CHAPPELL. Is the state of the art such, at this time, that we can meet all of the engineering problems which are involved in this construction?

Colonel WISDOM. Yes, sir, that is right.

General MORRIS. I am having a little problem with Colonel Wisdom's answer on the permanency of some of the environmental effects.

Mr. CHAPPELL. We are going to get to those if you don't mind.

Colonel, the answer you just gave me, is that based upon your own professional judgment?

Colonel WISDOM. Yes, sir, it is.

Mr. CHAPPELL. General, if you don't mind I will come to that with you in a little bit, and we will get your professional opinion because I think it is important.

General MORRIS. Yes, sir, thank you.

Mr. CHAPPELL. Obviously, none of us in the Congress, and none of us in the State want a canal that is going to do harm or any project, for that matter, that is going to do harm to our people or to harm one geographic area simply to enhance another area.

I believe that some of our folks are a little bit concerned that this 150-foot strip across Florida just does all kinds of harm. To put it in proper perspective it is kind of like trying to say that damage in the Suez Canal would do damage to Siberia.

EFFECT OF CANAL ON GROUNDWATER

But, anyway, let's explore that 150 foot strip across Florida and see first of all what would it do to the underground water in the area.

Colonel, this has been a problem and a concern of many. None of us wants to build a canal that is going to do any harm to the underground water in this area, or in Florida. What have your studies revealed?

Colonel WISDOM. Sir, that has been a very controversial issue. However, I would like to state for the record that there have been extensive studies made not only by the Corps of Engineers but the United States Geological Survey regarding that very subject. Our studies do not reveal that there will be damage to the underground water as a result of construction. We have also indicated that there is sufficient water in the area to meet the needs of projected growth in the area, as well as enough water to take care of movement of barge traffic, even during the worst drought period.

EFFECT OF CANAL ON AQUIFER

Mr. CHAPPELL. So no damage will be done to the underground water system. Many of our people in Florida, I am sure, are concerned if

you do anything to the aquifer in central and north Florida that you are going to cut off the water in south Florida and some way mess it up.

Do the people of south Florida get their water from the aquifer in northern and central Florida?

Colonel WISDOM. No, sir, they do not.

Mr. CHAPPELL. Where do they get it?

Colonel WISDOM. They get it from two sources, from the Biscayne aquifer or from Lake Okeechobee.

Mr. CHAPPELL. So what you do to the aquifer in this area isn't going to affect them one whit, is it?

Colonel WISDOM. No, sir.

Mr. CHAPPELL. So it cannot possibly do any harm.

Colonel WISDOM. No, sir, you are correct.

Mr. CHAPPELL. And you just stated there is no harm to the people in the area, right?

Colonel WISDOM. That is right.

SALT WATER INTRUSION

Mr. CHAPPELL. Let's talk about salt water intrusion. Some of our people have been concerned along the route that there might be salt water intrusion. Have studies and investigation been done on this subject?

Colonel WISDOM. Yes, sir, we have.

Mr. CHAPPELL. Is there any indication of any salt water intrusion problem?

Colonel WISDOM. No, sir. As a matter of fact, the bypass at the Inglis lock was placed there specifically for that reason, to inhibit possible salt water intrusion into the Withlacoochee Backwaters (Inglis Pool).

AREA AFFECTED BY CANAL

Mr. CHAPPELL. Just to further dramatize the situation and have us best understand it, I show you a chart here that has 21 of the counties that would be involved about equidistant from the canal in central Florida. Since it doesn't hurt south Florida in any way regardless of what you do to the aquifer I hand you a map and ask you, have you seen this map before?

Colonel WISDOM. Yes, sir, I have.

Mr. CHAPPELL. Can you tell us what the green represents?

Colonel WISDOM. I am going to turn that over to Mr. Eisenberg. Do you remember this map? I believe the Canal Authority developed it.

Mr. CHAPPELL. Yes, sir. Dr. Glen Faulkner?

Colonel WISDOM. I believe so, yes, sir.

Mr. CHAPPELL. Is he present?

Mr. GARLAND. He is not here. I think I could add something to that, Mr. Chairman.

Mr. CHAPPELL. Let me state it very simply because I don't want to belabor this one too long either. This one purports to reflect 21 counties in this area roughly equidistant from the center line of the canal and the information which we have is that there would be absolutely no effect in any of the green area. Is that correct, sir?

Mr. GARLAND. Yes, sir, it is.

Mr. CHAPPELL. Then it leaves only this little narrow strip right along the canal route as it traverses the Saint Johns on the one side and the Gulf of Mexico on the other. Isn't that correct?

Mr. GARLAND. Yes, sir, that is correct.

Mr. CHAPPELL. And for the record, since he doesn't have a copy of this, we are talking about an area that never exceeds over at its widest point—what? Two or three miles?

Mr. GARLAND. It would be about 2 miles.

Mr. CHAPPELL. About 2 miles at the widest point and at most of the areas along this canal it is far less than that, isn't it?

Mr. GARLAND. Yes, sir, that is correct.

Mr. CHAPPELL. Is that correct, sir?

Mr. GARLAND. Yes, sir, it is.

Mr. CHAPPELL. Colonel, even in that little narrow strip along there you just testified no salt water intrusion and no damage to the underground water, is that right?

DESCRIPTION OF AQUIFER

Colonel WISDOM. Yes, sir, it is. The aquifer is in excess of 1,000 feet deep, and we are talking about the project affecting only the first maybe 25 feet of the aquifer.

Mr. CHAPPELL. Of course I was born and raised in this area, and I have been in and out of many caves that are in the area, and many pits that have been dug, as you know, several hundred feet deep, the lime rock and phosphate area, and I have some idea of the strata there, but a lot of people feel that this aquifer is just kind of a mushy type of thing through which water and fluids just pass with no problem. Would you tell us how you would characterize the Florida aquifer in this area?

Colonel WISDOM. Yes, sir. The Florida aquifer is porous, but the upper strata of the aquifer is less porous than the lower. We did some well drilling in the area. I don't remember the exact number of test wells that we ran, but we had to go some 20 feet below the canal prism before we could get enough water to run a test.

Mr. CHAPPELL. And so based upon those tests there would be no damage to the aquifer that could not be overcome with engineering?

Colonel WISDOM. That is right.

EFFECT OF CANAL ON THE WATER TABLE

Mr. CHAPPELL. Others have been concerned that you might have a lowering of the water table in a part of this area traversed by the canal. Would you tell us your professional opinion on that and what this study reflects?

Colonel WISDOM. Our studies do not indicate any lowering of the water table.

Mr. CHAPPELL. So we don't have to worry about the water table being lowered. Do we have to worry about it being raised?

Colonel WISDOM. No, sir, we do not.

Mr. CHAPPELL. So that essentially with the new depth recommended and the other engineering that has been provided there won't be any harm in either lowering or raising the water?

Colonel WISDOM. No, sir, there will not.

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SUMMARY OF EFFECTS ON GROUND WATER

Mr. CHAPPELL. So now it is clear there is no salt water intrusion, no lowering or raising of the water, and there is no messing up of the underground water. That is where we are at this point, isn't it?

Colonel WISDOM. Yes, sir, that is correct.

Mr. CHAPPELL. General, in all fairness to you, I know you won't differ much, anyway, but we ought to give you a chance to offer your professional opinion. Any difference you might have with the colonel? Notice we stated that very carefully, general.

General MORRIS. I may have misunderstood the question.

Mr. CHAPPELL. I thought you did, because the emphasis there was that with the present engineering technology and technique we can overcome whatever problems there might be in the construction so that you not have any harm. That is really what we are saying.

General MORRIS. As far as the aquifer is concerned I would agree. I really thought the question was, whether we could engineer away all the environmental impacts of the canal.

Mr. CHAPPELL. No, sir; I am sure we would all agree that you could never guarantee that any more than we could guarantee that the Sun won't come up tomorrow morning, but we are pretty sound on our techniques and technologies, aren't we, General?

General MORRIS. Yes, sir, we are.

Mrs. BOGGS. Mr. Chairman.

Mr. CHAPPELL. Yes.

BENEFICIAL ENVIRONMENTAL EFFECTS

Mrs. BOGGS. May I comment that through all of these years of so many different studies surely there were some beneficial environmental impacts that were brought to light in addition to the economy, and recreation, and so on.

We have heard a great deal this morning about endangered species and also conditions of species that may become endangered. Were there any positive environmental effects on the ospreys and eagles, the wading birds, the waterfowl, and alligators?

INCREASED WILDLIFE HABITAT

General MORRIS. The answer to the question is yes. Lake Oklawaha did increase habitat for the wildlife that you mentioned and some others.

Mr. CHAPPELL. You said "increase the habitat."

General MORRIS. Yes, sir; increased vegetation diversity along the shoreline creates beneficial habitat and feeding sites for some birds, small mammals and deer; also fishing improves. There was some expanded wildlife community in the reservoir, and the new alinement would retain the Oklawaha River. While that is not a plus, it is an avoidance of what otherwise would have been negative.

Mr. CHAPPELL. Would the gentlelady yield for a moment?

Mrs. BOGGS. Surely.

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FISHING IN THE OKLAWAHA RIVER

Mr. CHAPPELL. I fished in that Oklawaha River and all along that river all of my life, but I tell you the Oklawaha River never held anything like this. This is (holding up mounted largemouth black bass 12 pounds plus) from Lake Oklawaha one of the completed reservoirs—not a small one! And the fellow who was kind enough to do this for me had three mounted at the same time and this was the middle size, and the others were no more than 6 ounces difference from that, and that is the reason our Lake Oklawaha is now called the bass capital of the world.

Colonel WISDOM. Sir, was that Howard Grisham?

Mr. CHAPPELL. You guessed it just right because he had one for you.

CHANGES IN WILDLIFE HABITAT

Colonel WISDOM. Sir, I would like to have Dr. Saunders elaborate a little bit on the environmental benefits that have accrued.

Dr. SAUNDERS. In general you would change the habitat from one that is dry now in Eureka to one that is more wet. It is easier I think to talk about what has happened in Lake Oklawaka and our anticipation of similar things happening in the Eureka Pool.

We know, for instance, that waterfowl population is tremendously increased. There is a very, very large duck population in the wintertime now, and it is an amazing thing to see. The eagles and the osprey populations have increased, as you said. The alligators have increased there as well as they have throughout the north and south now to the point where it is no longer endangered in many areas. There are several other species that also benefit, but primarily those that are dependent upon large bodies of water for feeding areas. On the west end we have cut the canal through some rock and exposed a hard substratum. We actually created a good estuarine or marine fishery around Inglis and Yankeetown. These are some of the positive benefits from the project.

Mrs. BOGGS. And the reservoirs do create a large habitat for the kinds of fish and birds and others that need the wet area to really survive in.

Dr. SAUNDERS. Yes, ma'am, there is no doubt about that.

Mrs. BOGGS. And the small amphibians and reptiles and so on.

Dr. SAUNDERS. Yes, ma'am, that is correct.

Mrs. BOGGS. Mr. Chairman, I apologize to you and to our witnesses. I am going to have to go to the floor of the House because my former colleague, Congressman Hébert's Uniformed Services University is being threatened as a species, and I have to go to talk about it. But I really would like to say that since 1942 my husband, Hale Boggs, had been very interested in this project, and when I ran in his stead in 1973 and offered to try to complete his work I didn't know that I would still be working on the Cross Florida Barge Canal. But I would be most agreeable to do anything that I can do to be helpful, as I am sure he would.

Mr. CHAPPELL. We thank the gentlelady.

Mrs. BOGGS. Thank you.

Mr. CHAPPELL. Let me followup.

Colonel, you had something you wanted to say there.

NEGATIVE IMPACTS OF CANAL AQUATIC PLANT CONTROL

Colonel WISDOM. Yes, sir. I want to say along with some of the pluses that we have on the environmental side we did have some negative impacts such as changing the riverine environment to that of an impounded environment. Impoundments increase the possibility of acquatic plant control problems. I think that our aquatic plant control program that we have instituted will take care of aquatic plants, but I am pointing that out that there are tradeoffs.

Mr. CHAPPELL. I appreciate your going into that. It is my understanding that you have had a number of meetings and a number of studies on this, and you have made it appear certain in the report that you have the capacity to control the aquatic weed, is that correct?

Colonel WISDOM. Yes, sir, that is correct.

Mr. CHAPPELL. Built into the plan.

Colonel WISDOM. Yes, sir, that is right.

Mr. CHAPPELL. As a matter of fact, you have an impoundment situation existing right now with Lake Oklawaha unless you blow up the dam over there close to the Saint Johns, isn't that right?

Colonel WISDOM. Yes, sir, we do.

Mr. CHAPPELL. So whether you finish it or not you have that problem, isn't that true?

Colonel WISDOM. Yes, sir, that is right.

ENVIROMENTAL BENEFITS

Mr. CHAPPELL. Since the gentlelady from Louisiana was talking about environmental benefits let's conclude on that, and I understand that there are some detrimental ones and we will want to bring those out with equal clarity.

Can you list and elaborate upon the beneficial environmental impacts in addition to what was said before? Maybe you can refer us to the page and go right down those if you will.

General MORRIS. Our report has them on pages 36b and c.

Mr. CHAPPELL. Is that the summary?

General MORRIS. Yes, that is the summary report. Significant impacts are listed in the environmental quality account. Beneficial impacts are listed in the report and then followed by adverse impacts.

Mr. CHAPPELL. If we listed those I suppose we could go right down the line. The beneficial aspects are transportation savings, flood control, recreation, fishing, and wildlife, to speak generally; is that correct?

General MORRIS. Yes, sir. Those are beneficial economic and environmental impacts.

Mr. CHAPPELL. We have had some testimony already about the reservoir, the fishery. Is there anything else to be said about that?

General MORRIS. No, sir, I think I covered that.

Mr. CHAPPELL. And we covered the osprey and the eagles, the wading birds, the waterfowl, and alligators, and they are all on the increase, aren't they?

General MORRIS. Yes, sir.

Mr. CHAPPELL. And I can testify they are about ankle deep in the area, and I don't know about the rest.

Another plus I think you reflect is that the disposal islands in the Gulf of Mexico will continue to benefit nesting diamondback terrapin and sea birds, isn't that true?

Colonel WISDOM. Yes, sir, that is right.

Mr. CHAPPELL. Small reptiles and amphibians will use the reservoirs and disposal islands that will be created within the reservoirs. Those are all pluses, aren't they?

General MORRIS. Yes, sir, that is correct.

TRANSPORTATION SAVINGS

Mr. CHAPPELL. You mention also that the canal would provide a bargeway between the Saint Johns River and the Gulf of Mexico near Yankeetown, giving access to the Atlantic Intracoastal Waterway and Atlantic Ocean, and you have listed the various transportation savings benefits. I don't think we need to get into those. We will make reference to them here so we might better look at them in the record.

I failed to mention earlier that with reference to the economic benefits you would have, if you took them into consideration you would have construction wages added to the regional economy over some 7 years total of about $24 million to $35 million. Isn't that reflected also?

Colonel WISDOM. That is what we talked about earlier.

Mr. CHAPPELL. All right. I think we can go by without further reference to that.

FISHING CATCH

You have some statistics with reference to the Lake Oklawaha bass catch per fishing man-hour which is 0.16, which is more than twice that of any other reach except Lake Rousseau, and the highest total fisherman effort and highest total fish yield of 330,467. I guess that is man-hours, and 156,000-plus fish recorded just at Lake Oklawaha alone.

The Rodman Dam spillway tailrace was second highest with some 85,000 fish and so on. You go with the statistics and I am not going to attempt to elaborate on each and every one of those at this point. Suffice it to say that the wildlife for the most part is enhanced, isn't it, our bird and our fish life? Would that be a fair statement?

ADVERSE IMPACT ON LARGER ANIMALS

Colonel WISDOM. The birds and the fish are enhanced, but there are tradeoffs again. Some of the larger animals, such as the bear and the Florida panther, that would normally use that area, will move to other locations.

Mr. CHAPPELL. How many bears do we find in there, Colonel?

Colonel WISDOM. Sir, that I don't know.

Mr. CHAPPELL. If there was any bear in that territory in 40 years, I believe I would have heard about it. I have walked all through that area, hunted all through that area, and I just wonder if anybody has ever seen a bear in there; not in the last 50 years, anyway. We cannot

even find them in what is called the Big Scrub any more, and I know there are a few around.

What else now? The deer?

Colonel WISDOM. The deer, the bear, and the spotted cat or the leopard; the Florida panther, not the leopard.

Mr. CHAPPELL. You are not saying they are going to be extinct, are you?

How many of those fellows do you find in 100 acres?

COLONEL WISDOM. I do not know, sir.

Mr. CHAPPELL. The truth of the matter is, Colonel, you have all the water you are going to have except in the Eureka Pool area, have you not?

Colonel WISDOM. That is right.

Mr. CHAPPELL. So most of whatever habitat could have been changed for the land animals has already been done, with the exception of the small area in the Eureka Pool; is that not right?

Colonel WISDOM. Yes, sir, that is right.

Mr. CHAPPELL. Now, are there any others you might think of?

Colonel WISDOM. Dr. Saunders, what were some of the minuses in that area?

SEPARATION OF WILDLIFE HABITATS

Dr. SAUNDERS. Some of the things that happen when you build projects like this is that you divide the habitat and you reduce the range of species.

You may separate small mammals from their nesting and feeding sites, if they happen to be on different sites.

Mr. CHAPPELL. Like what?

Dr. SAUNDERS. Well, let's talk about deer, maybe, or bear.

Mr. CHAPPELL. You are not trying to tell me a river like the Oklawaha or even that lake would separate deer, are you?

Dr. SAUNDERS. It will act as a barrier, yes, sir, on the movement of deer.

Mr. CHAPPELL. They will swim it like fish, will they not?

Dr. SAUNDERS. But not as fast as they would run across if it was not there.

Mr. CHAPPELL. No; that is true. They will not swim it as fast. I will concede that one.

IMPEDIMENTS TO WILDLIFE MOVEMENTS

Dr. SAUNDERS. There is some impediment to movement of the small mammals who have trouble getting around. Again we are talking about mammals relatively common in the area anyhow. So there is a concern, but not as much concern as there would be were they endangered or extremely rare.

Mr. CHAPPELL. You are talking about the rabbits, skunks, mice, things like that?

Dr. SAUNDERS. Yes, I am.

Mr. CHAPPELL. Are there any others or do you think that pretty well covers it.

Dr. SAUNDERS. I think that pretty well covers it.

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PLEASURE BOATING

Mr. CHAPPELL. All right. Let me proceed, and Colonel, in the interest of time, I think most of us would agree, would we not, and I think your report shows this area would provide exceptional pleasure boating?

NAVIGATION BENEFITS

Colonel WISDOM. Yes, sir, it would.

Mr. CHAPPELL. And many benefits from a safe, commodious passageway between the gulf and the Atlantic coast; is that not true?

General MORRIS. Yes, sir, that is true.

Mr. CHAPPELL. Not to mention the connection with tributary routings up the St. Johns and Oklawaha and even parts of the Withlacoochee; is that not true?

Colonel WISDOM. Yes, sir, that is correct.

ENVIRONMENTAL LOSSES

Mr. CHAPPELL. Let's move now to the losses with reference to the environment.

Where do we want to start on that? Where would they be listed?

General MORRIS. Sir, on page 36–C of the report, you start off on the natural resources which require 21,920 acres of nonreservoir land, 142 acres of river run, $3.755 million for renewable commercial timber would be lost, and some habitat of four endangered species.

ENDANGERED SPECIES

Mr. CHAPPELL. Let's talk about the habitat and endangered species. Can you tell us the most significant of the endangered species that would be damaged?

RED COCKADED WOODPECKER

General MORRIS. The red cockaded woodpecker.

Mr. CHAPPELL. Let's talk about the red cockaded woodpeckers. Where were they found?

General MORRIS. Specifically?

Dr. SAUNDERS. Red cockaded woodpeckers are normally found in mature pine habitat, generally in upland areas. It would be in the Eureka Reach if we use that alignment.

Mr. CHAPPELL. How much habitat loss are you going to have there, on the upland alignment?

Dr. SAUNDERS. The upland alignment total, including the Summit Reach and the Eureka Reach, would be 6,610 acres.

Mr. CHAPPELL. 6,610 acres. These birds are highly mobile, are they not?

Dr. SAUNDERS. Yes, sir, they are.

Mr. CHAPPELL. They have a lot of territory to survive in, do they not? How many red cockaded woodpeckers did we find involved?

Dr. SAUNDERS. They live in clans. I think the Eureka Reach would displace two to five clans of them.

Mr. CHAPPELL. How many birds?

Dr. SAUNDERS. I am not sure.

Mr. CHAPPELL. Your report I think covers it.

Dr. SAUNDERS. The environmental statement does. I think it is shown in table 2.

Mr. CHAPPELL. I want to be sure we know how many we are talking about. Do you not mention six or seven? My recollection is that your report shows that it involves six or seven woodpeckers.

Dr. SAUNDERS. I think your number is correct, but I think we are talking about clans instead of individual birds. I cannot give you the size of the clans.

Mr. CHAPPELL. I am referring to—and please do not misunderstand, I am not trying to be argumentative, I am just trying to get the record straight.

HABITAT LOSSES

On page 87–J, you speak of impacts, you say impacts: Habitat losses approximate 700 acres of mixed swamp, 100 acres of loblolly pine hammock, 90 acres of bayhead, 90 acres of slash pine flat woods, 40 acres of long leaf pine flat woods, 20 acres of deciduous oak sand hill, including two red cockaded woodpecker clan sites consisting of 6 or 7 red cockaded woodpeckers.

And you put in parentheses "six to seven birds."

Dr. SAUNDERS. I do not know where you are reading from.

Mr. CHAPPELL. I am reading from your summary report. I assume that is accurate.

Dr. SAUNDERS. That is accurate.

Mr. CHAPPELL. All right.

Dr. SAUNDERS. It is much more accurate than my memory.

Mr. CHAPPELL. All right, General, we are ready to go down on some more of the adverse. You talk about six or seven red cockaded woodpeckers.

MANATEE

General MORRIS. Well, there were other endangered species, I believe. There would be some effect on the manatee, because of the barge traffic.

Mr. CHAPPELL. What about the manatee, General; you mention it on your EIS summary pages 27 and 28.

General MORRIS. The only point was that the barge traffic would be adverse to it.

Mr. CHAPPELL. Let's explore that a bit.

How many manatees? Your report reflects the number of manatees involved over in the St. Johns River. Does the history show whether or not any manatees have been killed by a propeller in the St. Johns, within the route traversed by this canal?

General MORRIS. I am not aware of any.

Mr. CHAPPELL. The report says only two, known to man, that were suspected of being killed by a boat. You and I know that those barges go up and down that St. Johns all the time and that is listed as one of the major habitats and yet we cannot find any record to show that more than two manatees, in all of recorded history, are even suspected as having been killed by a boat.

Now over on the other side, at the other end of the canal, your report shows, does it not, that the Withlacoochee might be a habitat, but we are not dealing here with that? The habitat you are talking about over there is some several miles north of the entrance of the canal to the gulf; is that not correct?

General MORRIS. Yes, sir, that is right.

Mr. CHAPPELL. And, too, these animals have to have aquatic weeds and that sort of thing to feast on, do they not?

General MORRIS. Yes, sir, that is correct.

Mr. CHAPPELL. It is not likely they are going to crawl up and go into those locks? They could get in there, but it is not likely, as slow as they are, they are going to go up the canal, up through the locks, is it?

General MORRIS. I would assume that is possible.

Mr. CHAPPELL. Is it not true that where you have dug this canal you have dug a rather wide, flat rocky-bedded area that does not have natural feed for the manatee in there; is that not true?

General MORRIS. That is correct.

Mr. CHAPPELL. So he is not likely, the manatee is not likely to be hunting in that canal, is he?

General MORRIS. I do not know.

Mr. CHAPPELL. I did not think the report was very strong on that point. I just wanted to make it clear. All of us want to save the manatee. He has been here a long time. He eats hyacinth, other aquatic weeds. He is slow. We want him, he does a great good, we do not want to harm him, but I do not believe the evidence is sufficient here that the canal is going to do any great harm to the manatee and we ought to have the record clear.

There have been but two recorded in history along with what is now a substantial part of the route, where the habitat is the best, and we cannot find any harm done to him.

So let's go to another one, what else, General?

CRUSTACEANS, MOLLUSKS, INVERTEBRATES

General MORRIS. Well, there is a reference here to the loss of habitat for crustaceans, mollusks, some reduction of invertebrates in the spring runs.

Mr. CHAPPELL. What was that, General? Excuse me.

General MORRIS. Crustaceans and mollusks associated with spring runs in the Oklawah area.

Mr. CHAPPELL. Which page are you reading from?

General MORRIS. The same one, 36–D, sir.

Mr. CHAPPELL. All right.

General MORRIS. That is opposite the wildlife in the second column.

Mr. CHAPPELL. General, I cannot for the life of me find it; 36 what?

General MORRIS. Page 36–D, sir.

Mr. CHAPPELL. D? All right. Now I am with you.

You are talking about the benthic macroinvertebrate communities; is that what you are talking abuot?

General MORRIS. No, sir; wildlife.

Mr. CHAPPELL. Wildlife OK. Go ahead. That is kind of what we just covered, did we not?

General MORRIS. I did not think we talked about the crustaceans and the mollusks.

Mr. CHAPPELL. You start anywhere you want. We will start from there. Tell me where you are.

General MORRIS. I am just reading the adverse impacts in the summary. I do not have the environmental impact statement before me, unfortunately.

Mr. CHAPPELL. We can get you a copy if you like.

Colonel WISDOM. Dr. Saunders, do you want to speak to page 36–D of the summary report, under the EQ plan? There are the mollusks, the crustaceans, fewer invertebrates in the spring runs which are eliminated. That is under alternative 2, EQ plan, H, wildlife.

Mr. CHAPPELL. Which is our preferred plan now?

General MORRIS. Plan 3.

Colonel WISDOM. Plan 3.

Mr. CHAPPELL. All right.

Dr. SAUNDERS. I am sorry, I am afraid I do not understand the question.

REASONS FOR LOSSES OF MOLLUSKS AND CRUSTACEANS

Colonel WISDOM. Could you elaborate a bit on the loss of the mollusks and the crustaceans?

Dr. SAUNDERS. Yes, sir. Those are due to inundation of spring runs in the Oklawaha area, by raising the lake level.

If you inundate springs, we think the endemic fauna will change to the lake fauna that will replace it.

Mr. CHAPPELL. What are you going to lose? You are talking about in the Eureka pool area?

Dr. SAUNDERS. No, sir. We are talking about in the Lake Oklawaha itself.

Mr. CHAPPELL. That has already been done?

CHANGING THE LEVEL OF LAKE OKLAWAHA

Dr. SAUNDERS. No, sir; we intend to raise the lake to a higher level.

Mr. CHAPPELL. You are going to do that now; are you not?

Dr. SAUNDERS. No, sir.

Mr. CHAPPELL. What are you going to bring it up to?

Colonel WISDOM. From 18 to 21 feet.

Mr. CHAPPELL. What is the highest you have been operating at?

Colonel WISDOM. Eighteen feet.

Mr. CHAPPELL. When will you bring it to 21?

General MORRIS. That is part of the plan for the navigation system.

Mr. CHAPPELL. Is that navigation or hyacinth control or aquatic weed?

EFFECT OF CHANGING LEVELS ON AQUATIC PLANTS

General MORRIS. We had a debate some time ago on whether or not fluctuating the pool would be beneficial or adverse to aquatic plant control.

As you will recall, that went on for some time. Our position was that raising and lowering the pool would probably be helpful in eliminat-

ing the aquatic plant problem. But the court directed us to leave the pool at 18 feet, and that is what we have done.

Mr. CHAPPELL. Quickly, how much more are we talking about if you bring it up all the way to 21, under the lowering and raising process?

Dr. SAUNDERS. I am sorry, I cannot quantify that for you. Our studies are not in that detail.

Mr. CHAPPELL. You are simply saying there may be some effect?

Dr. SAUNDERS. Yes, sir. There may be some effect.

Mr. CHAPPELL. That is really what you are saying?

Dr. SAUNDERS. Yes, sir, that is correct.

Mr. CHAPPELL. There may be some effect; we really do not know?

Dr. SAUNDERS. Yes, sir, that is correct.

General MORRIS. Sir, I think the point that Dr. Saunders makes is a very valid one. Under the law we should identify all the adverse impacts, regardless of the magnitude.

Mr. CHAPPELL. I agree. I just want to understand.

If it is of great consequence we want to identify it, if it is small we want to identify it. If I am giving you the impression otherwise, I apologize here; all I am trying to do is take your report and understand it, and understand the language of it for the committee.

So we are to the point where we are saying, General, tell us the adverse effects on wildlife, crustaceans, whatever that is, and all the other; that is all I am saying. You can list them or I will go down through them here and ask about them, either one. Which do you prefer?

General MORRIS. We will be glad to list them.

Mr. CHAPPELL. Go ahead.

IMPACTS ON VEGETATION

General MORRIS. I think we finished them up until we get to vegetation.

Mr. CHAPPELL. Go ahead with vegetation. If you have finished that, let's go to vegetation. But before we do that, let's take a 7-minute break here. There is a vote on the floor.

[Recess.]

Mr. CHAPPELL. Back on the vegetation; is it?

IMPACT OF OIL SPILLS

General MORRIS. Yes, sir.

There are two major adverse areas I think we need to address. One is the vegetation and the other is the risk or possibility of the effects on the environment in case there was an oil spill or some damage to a tow. Of course the latter is not quantifiable, but there is a probability that it has some adverse effects. We can quantify the vegetation loss.

Mr. CHAPPELL. Let's explore that a little bit. Under the present state of the art you have skimming processes and chemical processes, all of which reduce that impact to a minimal state; doesn't it?

General MORRIS. Yes, sir. There is no question that the risk is not great. There is also no question that the capability to correct it is much

greater than before and getting better every day. On the other hand, the fact is it could happen.

Mr. CHAPPELL. Go ahead.

LOSS OF FOREST LAND

General MORRIS. On the adverse impacts on vegetation, you may want to address that a little more because of the loss of 11,660 acres of forest land.

Mr. CHAPPELL. Are we talking about additional, this new alinement in addition to that that has already been inundated, or this is the total inundation?

General MORRIS. No; this is additional.

Mr. CHAPPELL. I don't think so, General. You better check that.

General MORRIS. The reason I say that is because under the NED plan the number of acres would be greater.

WATER PARSNIP

Mr. CHAPPELL. Let's go down and take this vegetation specifically right down the line. Give us the significance of these things because the committee doesn't know.

Let's take water parsnip.

Dr. SAUNDERS. Water parsnip is an endangered plant, sir, under the Endangered Species Act. That makes it significant. The Endangered Species Act requires close coordination with the Department of the Interior, as you well know.

Mr. CHAPPELL. You state in your report that the water parsnip is fairly common in the Saint Johns Reach. That wouldn't be further harmed, would it, in Saints Johns Reach, because that is the Saint Johns River, and this hooks right into the Saint Johns so you are certainly not saying that part of it would be hurt?

Dr. SAUNDERS. No, that is not correct. There is a cut in Rattlesnake Bend in the Saint Johns Reach.

LOCATION OF SAINT JOHNS REACH

Mr. CHAPPELL. Where is the Saint Johns Reach?

Dr. SAUNDERS. From Palatka to the canal.

Mr. CHAPPELL. That is the Saint Johns River, isn't it?

Dr. SAUNDERS. Yes, sir, but the canal alignment does not follow the existing river, and the existing navigation project. There is a cut that goes across Rattlesnake Bend.

Mr. CHAPPELL. How far across is that?

Dr. SAUNDERS. About a mile and a half.

WATER PARSNIP HABITAT

Mr. CHAPPELL. Are you saying the fact that you go across there is going to substantially endanger it?

Dr. SAUNDERS. No, sir. I am saying that the Fish and Wildlife Service has already made a determination that it is substantially endangered. That cut will affect it.

Mr. CHAPPELL. Yes, I understand that they say it is endangered, but your testimony is that you are not trying to say that it would substantially further endanger it, are you?

Dr. SAUNDERS. No, sir, we have made no statement like that.

Mr. CHAPPELL. That is what I thought. Also your statement reveals that it is limited in Lake Oklawaha, isn't that right?

Dr. SAUNDERS. Yes, sir, but it is a terrestrial plant. It would be extremely limited in a lake.

Mr. CHAPPELL. You say it is abundant in Eureka Reach, and you say there is no further change indicated; isn't that right?

Dr. SAUNDERS. Yes, sir.

Mr. CHAPPELL. Anything else about water parsnip? What is water parsnip?

Dr. SAUNDERS. It is just a small plant.

Mr. CHAPPELL. How would we identify it? What does it look like?

Dr. SAUNDERS. I cannot say.

Mr. CHAPPELL. Small aquatic plant?

Dr. SAUNDERS. No; terrestrial plant.

COONTIE

Mr. CHAPPELL. Let's take the coontie. What is the coontie?

Dr. SAUNDERS. It also is an endangered plant.

Mr. CHAPPELL. And what does your report say about that?

Dr. SAUNDERS. All the report does is to bring to the decisionmaker the fact that the plant is endangered. It does exist, and it will be impacted.

Mr. CHAPPELL. Please understand, if I sound argumentative I am not trying to be. I am simply trying to save time and move on and get to the committee these items. That is all I am trying to do. I am not trying to be argumentative with you.

I think you have done an excellent job in pointing these out; not only that, you have been fairly thorough in your report, because on the coontie you say the impacts are negligible under the proposed completion plan. You have stated it concisely and clearly. I am not trying to argue with you.

I want to take these down the list, and if you disagree with what the report shows you may say so. All I am trying to do is get it out to where the people can see it. I am just trying to get the vegetation problem explained in the record.

NEEDLE PALM

So needle palm. The report shows that it should not be harmed by canal construction and maintenance. Do you disagree or agree?

Dr. SAUNDERS. I agree, of course, if that is what the report says.

Mr. CHAPPELL. I will just read these if it will save some time, Colonel, unless you want to do it a different way. All I am trying to do is get it in one place so the members can see it.

SILK BAY

Silk Bay. I don't know what that is, and I guess we could identify it later, some small plant of some sort, right?

Dr. SAUNDERS. That is correct.

Mr. CHAPPELL. It is quite abundant in the State and in the project area. Populations within summit construction areas would be extirpated, but could be protected in adjoining rights-of-way strips through proper management. So you had the proper management built into your plan, haven't you, Colonel?

Colonel WISDOM. Yes, sir, we have.

Mr. CHAPPELL. So it isn't going to be harmed.

QUILLWORT

QUILLWORT. The report shows that the canal would have no great effect on this species under any build or no-build plan. So there is no problem with the quillwort, right?

Colonel WISDOM. Yes, sir, that is correct.

VENUS-HAIR FERN

Mr. CHAPPELL. And Venus-hair fern. The report shows that the impacts are negligible under the selected construction plan, and so there is no harm done to it.

BUCKTHORN

The buckthorn. Impacts from construction probably negligible. So we don't have a problem. You simply are identifying these things and pointing out that there is no great harm to the vegetation. That is all I am trying to bring out here, or if there is a harm to bring that out too.

WHITE ARROW ARUM

The white arrow arum. The selected plan would not be detrimental to this population.

SUNDEW

The sundew. The report shows the impact probably negligible.

PINESAP

The pinesap, which is widespread throughout North America but known in Florida only from canal route. The only specimen identified was at the top of steep bluff, south of Lake Oklawaha. Previous collection made 300 meters east of Orange Springs. Human development in the canal area adjacent to Lake Oklawaha could eliminate this species from project area and from the State.

LOCATIONS OF HABITATS OUTSIDE PROJECT AREAS

We ought to question that a bit here because you say it could be exterminated. Are not these locations well outside the limits though of the cross Florida barge canal project? I think that is what that report says, that they are there, they are along the way, but they are really outside of the barge canal project itself. Isn't that right? You simply mention them to show that they are in the area.

Colonel WISDOM. Yes, sir, that is correct.

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DISCERANDRA FRUTESCENS

Mr. CHAPPELL. The *discerandra frutescens*. A small woody mint recorded from Marion and Highland Counties; the only populations located by study were in Summit Reach deciduous oak sandhills and on berms of abandoned 1938 canal diggings.

My point there is if you only found them on abandoned canal diggings you are going to have this same sort of habitat, so there isn't going to be any harm to that. I think that is what your report is trying to say, isn't it? That is what it is. OK.

LEATHER FERN

Leather fern. Tropical fern abundant in south Florida; found at one location north of Saint Johns. Canal construction might destroy a few plants. I, therefore, assume that it doesn't in any way endanger it or do any great harm to it. It would destroy a few plants.

ATLANTIC WHITE CEDAR

The Atlantic white cedar. Not affected by canal construction.

SNOW BERRY

Snow berry. Generally South Florida shrub; found only on coastal hammock in study area. The canal project already complete in this locale, and, therefore, any change now from hereon in isn't going to change that, so if there is any harm it is done and so for the future we are not dealing with any harm to the snow berry, right?

Colonel WISDOM. Yes, sir.

FLOWING DOGWOOD

Mr. CHAPPELL. The flowing dogwood. The canal construction would have little impact.

STOPPER

Stopper, which is a tropical shrub, the same as the snow berry. There is no harm. You are simply listing it here to show what is found along the way and to show that full consideration has been given to these matters.

Incidentally, Doctor, I want to commend you. I think you people have been most thorough in listing these and determining the impact.

HOP HORNBEAM

The hop hornbeam. Found in Florida from Gainesville westward and near Saint Augustine. Heather Island only location this was found, and if I understand it correctly, Colonel, Heather Island isn't really going to be disturbed, isn't that right?

Colonel WISDOM. That is right.

Mr. CHAPPELL. So we don't harm the hop hornbeam.

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WHISK FERN AND CABBAGE PALM

The Whisk fern. Occurs mostly on trunks of cabbage palms; subject to destruction with cabbage palms affected by construction.

Well, all of us know we have palm trees all over Florida, and all over this area, so we are not about to endanger it, are we?

Colonel WISDOM. No, sir, that is right.

Mr. CHAPPELL. So the canal construction isn't going to harm the whisk fern.

WILD COFFEE

The wild coffee. A tropical shrub common in south Florida; ranges as far north as Fort George Island near Jacksonville, Specimens located at Heather Island and on coastal hammock. No impact at latter site; Heather Island population affected same as hop beam, which we have already said wasn't really affected, not harmed.

If I am reading too fast stop me and let's clear the record.

IMPACT ON ENDANGERED PLANT SPECIES

Colonel WISDOM. On page 36c, sir, we do say that there will be no impact on endangered plant species.

Mr. CHAPPELL. Right. That is good. Then these others are listed for information to show what effect there would be, right?

Colonel WISDOM. Yes, sir, that is right.

OTHER VEGETATION TYPES

Mr. CHAPPELL. So there is no harm to any endangered. The bluff oak. Not affected, according to the report.

Southern red oak. Not directly affected by canal construction.

Swamp chestnut oak. Which is a common tree in the Southeast, New Jersey to Texas; distribution in area with loblolly pine. Construction would destroy some trees. Under nonconstruct, sites liable conversion by owners into pine plantations, and of course that would be true I assume either way, so construction itself wouldn't affect it.

Shumard oak. Not affected by the canal.

POST OAK

Post oak. Sandhill habitats subject to disruption by canal construction in Summit Reach.

What about the post oak? Since there is going to be some harm done to it can somebody characterize the harm? It says it simply would be subject to disruption. I assume nobody is really concerned that this is anything significant.

Dr. SAUNDERS. May I ask again what you are reading from?

Mr. CHAPPELL. Yes, sir, reading from your report.

Dr. SAUNDERS. What page?

Mr. CHAPPELL. These are from the environmental——

Dr. SAUNDERS. Again, I think it is fair to say that in some areas where we propose to dig a canal there will be vegetation. That vegetation will be removed. We will also have to stack the material we dig somewhere, and that will also be cleared. If the species occurs in

that area, there will be some damage to it. I am not sure that we cited post oak as being endangered though.

Mr. CHAPPELL. No; you did not. You said there would be some harm to it, and I thought we would have the record clear.

If there is any substantial harm we ought to know about it, but apparently there is no substantial harm. Let's move to another one.

IMPACTS ON OTHER PLANT SPECIES

The big leaf snowbell is a mixed swamp shrub along Saint Johns. And again you say that the impact is probably minor.

Giant airplant, minimal impact.

Deerberry. The blueberry species; hardly affected, the report said, by the canal.

We are still trying to find the exact page from which we listed these, but I assure you they are in this major environmental volume, which is apparently the big one.

ENDANGERED SPECIES—"DICERANDRA FRUTESCENS"

Is there any significance to this *Dicerandra frutescens*, any significance to that, Doctor?

Dr. SAUNDERS. Yes, sir, there is. It is an endangered species.

Mr. CHAPPELL. I thought though the report showed there was no harm to the endangered species.

Dr. SAUNDERS. Yes, sir, while you and I may agree that it is a common thing along the canal, and it can be replanted and it thrives, it is still endangered and falls under the Endangered Species Act. It is up to the Department of the Interior to make comments on that should we decide to go ahead with the project. I am sure they will.

INVOLVEMENT OF DEPARTMENT OF THE INTERIOR

You are well aware of their involvement in this study.

Mr. CHAPPELL. I am certain they will. They have already had substantial input in here, haven't they?

Dr. SAUNDERS. In the sense that they have reviewed this report, yes, sir.

Mr. CHAPPELL. Didn't two of the Federal agencies have specific responsibilities in this, two agencies of the Interior Department?

Dr. SAUNDERS. The U.S. Geological Survey is the only one I can think of.

Colonel WISDOM. The Bureau of Outdoor Recreation and Florida Game and Freshwater Fish Commission also participated.

Mr. CHAPPELL. And the game and freshwater fish commission was under contract with the Federal agency, so the Federal agency is the one who does it.

INCLUSION OF PLANT SPECIES IN REPORT

General MORRIS. I repeat, sir, we really must include all of these species that are in the area in our studies.

Mr. CHAPPELL. I agree. That is what I am trying to do, is include them all so we understand it.

General MORRIS. The thrust of your question seemed to be well, why did you include this one since there is no damage to it?

Mr. CHAPPELL. I don't argue with you at all. All I am trying to do is when we find or determine whether there is——

General MORRIS. We said there is no damage to endangered plant species.

Mr. CHAPPELL. All right. I just wanted to put that on all fours with what the doctor said just a moment ago.

General, that is all I have.

SUMMARY OF ENVIRONMENTAL IMPACTS

General MORRIS. On this matter of the environmental impacts, I would like to summarize by reading from the conclusions in the letter which I sent to the Secretary of the Army, because I think that the bottom line of this is that, having made such an exhaustive environmental study, we were able to conclude that adverse environmental impacts are not so severe as to demand a decision against completion of the canal if it were economically justified by an ample margin.

The thought is that all of these things we have talked about have some adverse effects, but in sum there is nothing that is so significantly severe as to warrant not building the project if it were economically supportable.

On the other hand, the evaluations that went into the environmental determination were, I think, rather exhaustive.

POSITION OF THE ENVIRONMENTAL COMMUNITY

In looking at the position of the environmental community that has evaluated this project, I think they may have some difficulty agreeing with this conclusion I just read, but if I may summarize their feeling, they feel that that whole ecosystem is of such importance that the only way to do justice to the environmental situation would be to restore it.

Mr. CHAPPELL. General, I think you have stated their position very adequately, and that position has been well known for many years, and by every one of them. They made that clear. The leadership in those groups have made it clear for a long time.

You and I know that those who advocate that position advocate that you go there and blow up the dam that holds the water in Lake Oklawaha and therefore try to restore Lake Oklawaha.

ALIGNMENT OF CANAL

I happen to be one of those who fought way back there the alignment of this canal with the Oklawaha River. I thought that was wrong. I think it is wrong now. But the point is that part of the river has been destroyed.

RESTORATION OF LAKE OKLAWAHA

We asked somebody not very long ago how many years it would take if you drain all the water out of Lake Oklawaha and try to go

back and get all those logs that have been stumped down in the mud by that machine, that every once in a while floats up in that area, all of that rotten wood that is going to be there with all of that. If you drew it down it would take 2,000 years to restore it. I haven't heard anybody refute it. Maybe some would say 1,500 years. I don't know. It is a substantial period of time.

I recognize there are those who want that, but from my standpoint the practical position is that I have said from the beginning when we started this study that I approved it from the standpoint none of us wants to build a canal that is either ecologically or economically unsound, and what we have reviewed here today in summary is the impact economically and ecologically, and I think you will agree that we have tried to bring out those things which are adverse and those things which were beneficial. Isn't that right, General?

General MORRIS. That is correct, absolutely.

Mr. CHAPPELL. And it is understandable that as reasonable men we can disagree in conclusions on what ought to be done based upon the evidence before us, but the evidence before us is pretty much as I have cited it today, isn't it, from the report? If there is any difference you state where it is.

General MORRIS. No; I have no comments.

Mr. CHAPPELL. So we get down to this final summation of what has been said today.

SUMMARY OF ECONOMIC CONSIDERATIONS

We said that economically if you took into account coal, the 10-percent contingency, the regional economic benefits, the area redevelopment benefits, this benefit-to-cost ratio would move to something like 1.46, which is a substantial benefit-to-cost ratio. We have said that the reason we didn't include regional economic benefits was you didn't have time to do it because those who have charge of policy haven't decided just exactly yet how to handle it. I understand that $500,000 EPA funded report on Socioeconomics has much helpful information provided the derogatary adjectives are ignored.

Nobody would dispute it if you find the coal beneficial and you put the 10 percent contingency in there, so we are down to the point where if these things were in there or shown to be relevant, as I believe they are totally relevant, and I think the report shows they are relevant, you simply were premature on Jacksonville coal because they are in the process of a study. So given whatever time is proper to know what the source is with Jacksonville, I think all of us would agree without these benefits it is one-to-one, which entitles it to take into account area redevelopment benefits.

Certainly when you put those in, and that is a determination this committee could make, obviously, as you pointed out in your report, then if we should go back and take those into consideration as they properly should be at a time when Jacksonville has determined what its position on coal is going to be and its source, then all of us agree that the economics are good, at least 1.58 to 1. That is pretty good, isn't it?

General MORRIS. Very good.

SUMMARY OF ENVIRONMENTAL CONSIDERATIONS

Mr. CHAPPELL. Then we come to the environmental impact, and all we have said here so far is there is no engineering problem. We can handle any damage that might be caused by the construction of this canal with good engineering technology and technique.

We have said with reference to all the wildlife and all these other things that we have no problem. That is what the report says, and there is no threat to endangered species.

We finally said that for those who are fearful of the water reservoir causing damage, there has been no harm, no damage to be expected from that; rather you have a changed environment from a swamp and flowing river to a large recreation reservoir asset.

We are not going to damage the area of the project, or any of those areas south of the canal, because the Orlando-Tampa-St. Petersburg-Miami areas do not get their water from this area.

We covered the possibility of oil spills, and heard that there is no problem with the oil spill with present-day technology, and that technology is getting better.

NEED FOR FURTHER ECONOMIC STUDY

So when we get through with it, when we wash everything out, back to just what the general said, now let's see what we would do with reference to regional and area benefits, the ten percent contingency, and the coal situation.

That is where we were, isn't it, dealing just with whether or not we ought to go forward with a study to see what the economics would be on that basis? That is where we were as I see it.

Does anybody disagree? You don't disagree, do you, General?

General MORRIS. I agree that is an outstanding requirement.

Mr. CHAPPELL. Gentlemen, I want to thank you for your very straightforward answers and for the very good report which you brought before this committee, and for helping us understand better what the true problems of the canal are, and trying to wash aside feelings one way or the other.

I happen to be one of those who still is looking at the Cross Florida Barge Canal project strictly from the basis of ecological and economic considerations.

Thank you for your very fine report.

General MORRIS. Yes, sir, thank you.

Mr. CHAPPELL. The committee stands adjourned.

[COMMITTEE PRINT]

NOTICE.—This report is given out subject to release when consideration of the bill which it accompanies has been completed by the whole committee. Please check on such action before release in order to be advised of any changes.

95TH CONGRESS } HOUSE OF REPRESENTATIVES { REPORT
1st Session } { No. 95——

PUBLIC WORKS FOR WATER AND POWER DEVELOPMENT AND ENERGY RESEARCH APPROPRIATION BILL, 1978

MAY 25, 1977.—Committed to the Committee of the Whole House on the State of the Union and ordered to be printed

Mr. BEVILL, from the Committee on Appropriations, submitted the following

REPORT

together with

ADDITIONAL VIEWS

[To accompany H.R. ——]

The Committee on Appropriations submits the following report in explanation of the accompanying bill making appropriations for Public Works for water and power development and energy research, for the fiscal year ending September 30, 1978, and for other purposes.

Cross-Florida Barge Canal, Florida.—The Committee has long followed the progress of this project. The Committee held hearings on April 21, 1977 on the final environmental impact statement and economic restudy report to review the conclusions stated in the report.

Corps of Engineers witnesses testified that no damage to the quality of the ground water or the ground water supply would result from completion of the canal. Further, there would be no damage to the aquifer, that the water supply of south Florida would not be affected, that extensive tests conducted by the Corps of Engineers show no danger of salt water intrusion as a result of construction, and that studies indicate that there would be no lowering of the water table, aside from minor scattered fluctuations along the immediate canal littoral. Stored water on the order of a six-month emergency supply for a city the size of Miami or St. Petersburg would be available when the Cross-Florida Barge Canal is completed, should an extreme crisis require.

The project construction and operation would result in no adverse environmental impacts that cannot be completely overcome by sound engineering practices. No rare or endangered species would be significantly affected. The present and completion status of the project increases the habitat for ospreys, eagles, wading birds, water fowl and alligators. Fisheries have already been enhanced by construction to date. The excellent bass fishing of Lake Oklawaha is particularly significant. Also, construction to date has provided increased habitat for nesting sea birds and diamond-back terrapins.

The testimony indicated that savings in coal transportation to Florida, through completion of the Cross-Florida Canal, would approximate $5 million per year for Jacksonville alone for the life of the project. This savings was not factored into the detailed economic restudy report due to an uncertainty within the Corps as to where the coal would be acquired. The Jacksonville Electric Authority has an ongoing study, expected to be completed in the near future, which will identify the source of its coal and quantify its forecast annual usage. The witnesses testified that using coal savings in the computation could bring the benefit-cost ratio from unity up to 1.27 to 1. These computations include the sunk costs of facilities and dams previously put in place. Had the sunk costs not been included in the ratio, it would have been even more favorable. Again, using area redevelopment assistance and contingency benefits, the report on page 22 of the summary shows benefits of 1.46 to 1. Eliminating sunk cost considerations raises the ratio to 1.80 to 1. These ratios show more benefits than when the project was originally funded.

The Committee takes notice of the fact that the benefit items authorized under Section 140 of the Water Resources Act were not factored into the final report for reasons of "policy" and that regional economic benefits were not included due to lack of time.

Four categories of economic benefits were *not* included in the overall assessment. Had all these benefits been considered the benefit to cost ratio could range as high as 5 to 1, or higher.

The witnesses acknowledged that further economic study in accordance with the provisions of Section 140 is an unmet requirement, and the Committee agrees that the report is not complete in the absence of an economic assessment which includes consideration of area redevelopment, regional economic benefits, contingency benefits and the movement of coal by barge.

The Committee has not provided funds for the restart of construction on this project, which is now 35 percent complete, but would consider such further funding when the economic assessment by the Corps has been updated to include the above factors.

IN THE CIRCUIT COURT, FIFTH JUDICIAL CIRCUIT, IN AND FOR MARION COUNTY, FLORIDA.

CASE NO. 71-196

OCALA MANUFACTURING, ICE & PACKING COMPANY, a Florida corporation,

Plaintiff,

vs.

THE CANAL AUTHORITY OF THE STATE OF FLORIDA, a body corporate under the laws of the State of Florida,

Defendant.

FINAL JUDGMENT

This Cause came on to be heard before the Court and the Court having received evidence and considered Argument of Counsel finds as follows:

1. That the Plaintiff and Defendant entered into an Agreement on September 26, 1968 which was subsequently amended on November 25, 1968 to convey certain property owned by the Plaintiff as right-of-way for the construction and maintenance of the Cross-Florida Barge Canal in consideration of the sum of $476,200.

2. That it was represented to the Plaintiff by the Defendant that the lands described in the Agreement would be used as a part of the Eureka Pool of the Cross-Florida Barge Canal Project and would provide the remaining lands of the Plaintiff with proximity to the Eureka Pool which would specifically enhance the value of the remaining 4,000 acres of contiguous land owned by the Plaintiff.

3. That simultaneously with the execution of the Agreement to Convey on September 26, 1968, the Plaintiff also executed in favor of the Defendant a right-of-entry for construction.

4. That on December 9, 1968, based upon the representations of the Defendant that the Eureka Pool would be created by the construction of the Cross-Florida Barge Canal within a reasonable period of time and in consideration of the payment by the Defendant to the Plaintiff, the sum of $62,313 for the land and the sum of $416.587 for the timber and in consideration of the sum of $2,300 in severance damages to that part of the remaining lands which would not be enhanced by having proximity to the Eureka Pool, the Plaintiff conveyed to the Defendant by Deed, 1,708.74 acres of land and the timber thereon.

5. That subsequent to the conveyance to the Defendant on December 9, 1968, the Defendant has harvested or sold timber of the value of $80,351.50.

6. That, except for the representations of the Defendant which the Plaintiff believed and upon which the Plaintiff relied concerning the creation of the Eureka Pool and the construction of the Cross-Florida Barge Canal, thereby specifically enhancing the value of the remaining 4,000 acres of land of the Plaintiff, the Plaintiff would not have conveyed the lands described in the Agreement and Deed.

7. That the Defendant is in possession of the lands described in the Agreement and Deed and has not conveyed said lands to any other party. That almost nine years has elapsed since the execution of the Agreement to purchase the rights-of-way and the Deed conveying the rights-of-way and no part of the Eureka Pool has been constructed. The failure to receive the enhancement in value to its remaining lands by the creation of the Eureka Pool and construction of the Cross-Florida Barge Canal amounts to a constructive fraud by the Defendant upon the Plaintiff requiring the cancellation and recision of the conveyance upon certain conditions being met.

It is therefore ordered and adjudged:

1. That upon the happening of any of the following events:

A. The Congress of the United States of America deauthorizes the Cross-Florida Barge Canal Project.

B. The United States Congress fails to appropriate funds for the construction of the Cross-Florida Barge Canal and the Eureka Pool, within four years from the date hereof.

C. The legislature of the State of Florida abolishes the Defendant or attemps to transfer its assets in conjunction with such abolishment or otherwise.

D. The legislature of the State of Florida enacting legislation prohibiting the construction of the Cross-Florida Barge Canal and the Eureka Pool.

The title to the following described lands to wit: TOWNSHIP 14 SOUTH, RANGE 23 EAST:

SECTION 1: GOVERNMENT LOTS 9, 10, 11 and 12; AND THAT PORTION OF GOVERNMENT LOT 8 LYING WEST OF SANDLIN CREEK.

SECTION 12: GOVERNMENT LOTS 4, 11 AND 12; THE NORTH 1/2 OF GOVERNMENT LOT 5; THE SOUTH 1/2 OF GOVERNMENT LOT 5 EXCEPT 7 AND 1/2 CHAINS IN NW CORNER; THE SOUTH 3/4 OF SOUTH 1/2 OF GOVERNMENT LOT 3; THE WEST 100 FEET OF THE SOUTH 300 FEET OF GOVERNMENT LOT 2; THE WEST 5/8 OF NORTH 1/2 OF GOVERNMENT LOT 13; AND THE SOUTH 1/2 OF GOVERNMENT LOT 13 EXCEPT 7 CHAINS SQUARE IN THE NE CORNER.

SECTION 13: GOVERNMENT LOTS 1, 2 AND 11; THE SOUTH 1/2 OF GOVERNMENT LOTS 3 AND 4; AND THE SOUTH 1/2 OF NORTH 1/2 OF GOVERNMENT LOT 12.

SECTION 23: THE SOUTH 1/2 OF SE 1/4; THE NE 1/4 OF SE 1/4 THE EAST 1/2 OF EAST 1/2 OF NW 1/4 OF SE 1/4; AND THE SOUTH 1/2 OF SW 1/4.

SECTION 24: GOVERNMENT LOTS 5, 6 AND 8; THE NORTH 1/2 OF GOVERNMENT LOTS 3 AND 4; THE SOUTH 1/2 OF GOVERNMENT LOT 7; AND GOVERNMENT LOTS 9, 10, R. AND 11 EXCEPT THAT PORTION OF LOTS 9, 10 AND 11 LYING SOUTH AND EAST OF THE OCKLAWAHA RIVER.

SECTION 25: THAT PORTION OF THE NORTH 1/2 OF GOVERNMENT LOT 6 LYING WEST OF THE OCKLAWAHA RIVER.

SECTION 26: THE NW 1/4; THE NW 1/4 OF NE 1/4; AND THE SW 1/4.

SECTION 33: ALL OF SECTION.

SECTION 34: THE NORTH 1/2 OF SECTION; THE SOUTH 1/2 OF GOVERNMENT LOT 1; THE SW.1/4; AND THE NW.1/4 OF SE.1/4.

SECTION 35: THE WEST 1/2 OF NW.1/4.

ALL THAT PORTION OF THE ABOVE DESCRIBED PROPERTY LYING EAST OF THE WEST TAKING LINE OF EUREKA POOL, SAID TAKING LINE BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

WEST TAKING LINE:

BEGINNING AT A POINT ON THE EAST BOUNDARY OF SECTION 12, TOWNSHIP 14 SOUTH, RANGE 23 EAST, N.0°56'11"W., 1430.13 FEET FROM THE SE. CORNER OF SAID SECTION; THENCE S.53°46'22"W., 254.60 FEET; THENCE S.28°44'23"W., 353.55 FEET; THENCE S.9°44'37"E., 502.24 FEET; THENCE N.45°30'58"W., 1177.38 FEET; THENCE N.67°37'12"W., 735.39 FEET; THENCE N. 14°50'24"E., 605.19 FEET; THENCE N.76°33'56"W., 1269.74 FEET; THENCE N.5°57'52"E., 336.82 FEET; THENCE N.50°19'17"W., 2020.43 FEET; THENCE N.10°18'17"W., 503.12 FEET; THENCE N.34°38'27"W., 668.51 FEET; THENCE N.11°15'28"E., 1075.70 FEET; THENCE N.32°38'41"W., 380.03 FEET; THENCE S.56°09'17"W., 511.71 FEET; THENCE S.17°04'35"W., 800.28 FEET; THENCE N.32°06'13"W., 1853.41 FEET; THENCE S.88°21'48"W., 525.21 FEET; THENCE N.49°01'42"W. 754.93 FEET; THENCE N.63°08'44"W., 442.75 FEET; THENCE N.13°04'10"W., 574.89 FEET; THENCE N.59°55'53"W., 548.86 FEET; THENCE N.39°11'47"W., 1083.89 FEET; THENCE S.34°17'13"W., 532.54 FEET; THENCE SOUTH 385.00 FEET; THENCE S.47°50'41"E., 1139.85 FEET; THENCE S.1°42'35"E., 335.15 FEET; THENCE S.54°05'12"E., 2216.31 FEET; THENCE S.12°42'49"E., 840.61 FEET; THENCE S.45°33'03"E., 735.43 FEET; THENCE S.38°52'04"W., 430.26 FEET; THENCE S.6°31'11"E., 352.28 FEET; THENCE S.74°19'55"E., 425.82 FEET; THENCE S.12°17'29"W., 916.00 FEET; THENCE S.83°49'47"E., 558.23 FEET; THENCE N.30°48'32"E., 634.55 FEET; THENCE S.40°27' 10"E., 2720.32 FEET; THENCE S.64°55'32"E., 601.71 FEET; THENCE S.29°52'17"E. 1124.38 FEET; THENCE S.15°15'18"W., 456.07 FEET; THENCE S.1°31'15"E., 565.20 FEET; THENCE S.35°49'35"W., 1153.19 FEET; THENCE S.16°13'57"E. 822.80 FEET; THENCE S.55°41'06"W., 1525.52 FEET; THENCE N.49°51'52"W. 333.54 FEET; THENCE S.60°05'11"W., 421.10 FEET; THENCE S.1°41'05"E., 510.22 FEET; THENCE S.68°07'40"W., 1503.20 FEET; THENCE N.79°33'45"W. 386.39 FEET; THENCE S.62°42'02"W., 523.28 FEET; THENCE S.14°44'37"W., 294.70 FEET; THENCE S.6°06'00"E., 658.73 FEET; THENCE S.88°28'21"W., 1500.53 FEET; THENCE S.33°41'24"W., 360.56 FEET; THENCE S.69°07'05"E. 525.81 FEET; THENCE S.56°31'25"E., 371.65 FEET; THENCE S.5°22'54"W., 693.05 FEET; THENCE S.31°55'15"E., 359.34 FEET; THENCE S.52°48'55"W. 182.00 FEET; THENCE N.43°47'53"W., 505.69 FEET; THENCE N.82°34'07"W. 347.92 FEET; THENCE S.64°43'20"W., 398.12 FEET; THENCE S.32°16'32"E. 449.44 FEET; THENCE S.70°42'36"W., 635.69 FEET; THENCE S.9°42'24"E., 771.04 FEET; THENCE N.82°16'17"W., 706.42 FEET; THENCE S.28°43'13"W. 416.20 FEET; THENCE S.32°47'04"E., 350.89 FEET; THENCE S.70°02'05"W. 1361.85 FEET; THENCE S.11°30'50"W., 1102.18 FEET; THENCE S.77°11'45"W., 338.42 FEET; THENCE N.54°08'30"W., 1246.19 FEET; THENCE S.64°13'50"W., 322.62 FEET; THENCE S.9°09'44"W., 314.01 FEET; THENCE S.46°48'51"E., 781.74 FEET; THENCE S.5°50'12"W.,1130.86 FEET; THENCE S.53°52'50"E., 229.02 FEET; THENCE S.13°01'45"E., 620.99 FEET; THENCE S.81°01'39"W., 480.88 FEET; THENCE S.36°26'28"W., 1069.03 FEET; THENCE S.1°35'28"E., 540.21 FEET; THENCE S.51°48'25"W., 1342.36 FEET; THENCE S.15°40'22"W., 721.84 FEET; THENCE S.23°54'44"E., 579.76 FEET; THENCE S.34°10'21"E., 658.73 FEET; THENCE S.63°34'01"W., 1943.15 FEET; THENCE N.28°23'13"W., 1125.31 FEET; THENCE N.87°13'15"W. 515.61 FEET; THENCE S.0°45'50"E., 375.03 FEET; THENCE S.22°32'35"E. 573.85 FEET; THENCE S.2°41'39"W., 425.47 FEET; THENCE N.89°06'36"W., 515.06 FEET; THENCE S.12°44'31"W., 408.05 FEET; THENCE S.43°52'36"E. 360.69 FEET; THENCE S.63°54'17"W., 818.43 FEET; THENCE N.72°46'47"W. 895.13 FEET; THENCE N.10°37'11"E., 732.55 FEET; THENCE N.77°08'31"W. 471.83 FEET; THENCE S.34°31'51"W., 661.55 FEET; THENCE N.79°54'32"W. 599.27 FEET; THENCE N.57°15'53"W., 416.08 FEET; THENCE S.88°54'37"W. 1560.60 FEET; THENCE S.26°01'23"W., 791.07 FEET; THENCE S.71°31'30"E. 446.06 FEET; THENCE S.81°53'57"E., 1383.81 FEET; THENCE S.67°25'33"E. 2409.62 FEET; THENCE S.10°51'23"E., 371.65 FEET; THENCE S.63°02'04"E. 319.77 FEET; THENCE S.1°12'45"E., 945.21 FEET; THENCE S.42°18'08"W., 676.04 FEET TO A POINT THAT IS 1859.08 FEET NORTH AND 8290.69 FEET WEST OF THE SE. CORNER OF THE NE. 1/4 OF SECTION 2, TOWNSHIP 15 SOUTH, RANGE 23 EAST, THE BEARING OF THE EAST BOUNDARY OF SAID NE.1/4 BEING S.0°31'30"E.

CONTAINING 1530 ACRES, MORE OR LESS.

LOTS 6, 7, 10, 11, 12, 13 & D 54, GRAHAMVILLE, IN[illegible] ON 30, TOWNSHIP 14 SOUTH, RANGE 2[illegible] EAST, ACCORDING TO PLAT THEREOF RECORDED IN PLAT BOOK "E", PAGE 32, OF THE PUBLIC RECORDS OF MARION COUNTY, FLORIDA.

THAT PORTION OF THE ABOVE DESCRIBED PROPERTY LYING WITHIN EUREKA POOL, THE TAKING LINE OF SAID POOL BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

TAKING LINE:
BEGINNING AT A POINT THAT IS 2069.08 FEET NORTH AND 2815.69 FEET WEST OF THE SE. CORNER OF THE NE.1/4 OF SECTION 2, TOWNSHIP 15 SOUTH, RANGE 23 EAST, THE BEARING OF THE EAST BOUNDARY OF SAID NE.1/4 BEING S.0°31'30"E., THENCE N.12°29'17"E. 763.05 FEET, THENCE N.43°50'59"E. 880.53 FEET, THENCE N.79°08'37"E. 371.65 FEET, THENCE N.54°54'59"E. 1026.50 FEET, THENCE N.20°23'15"E. 1392.21 FEET, THENCE N.2°23'09"W. 480.42 FEET, THENCE N.67°05'14"E. 526.55 FEET, THENCE S.49°53'57"E. 993.58 FEET, THENCE S.28°39'16"E. 1042.70 FEET THENCE S.56°18'36"E. 522.80 FEET, THENCE S.42°35'38"E. 842.20 FEET, THENCE N.40°20'49"E. 610.12 FEET, THENCE N.20°01'52"W. 510.91 FEET, THENCE N.67°22'49"W. 455.00 FEET, THENCE N.31°52'47"W. 482.83 FEET, THENCE N.19°34'23"E. 238.80 FEET, THENCE N.36°19'37"W. 422.02 FEET, THENCE N.68°23'40"W. 543.16 FEET, THENCE N.36°52'12"W. 1200.00 FEET, THENCE N.57°43'28"E. 561.81 FEET, THENCE N.24°03'06"E. 1631.66 FEET, THENCE N.6°41'28"E. 901.14 FEET, THENCE N.47°09'31"E. 1595.66 FEET, THENCE N.21°09'41"E. 997.25 FEET, THENCE S.86°52'25"E. 1191.77 FEET, THENCE S.48°53'37"E. 1353.70 FEET, THENCE N.69°26'38"E. 384.48 FEET, THENCE N.3°08'11"E. 365.55 FEET, THENCE N.45°45'38"W. 1598.20 FEET, THENCE N.83°26'01"W. 699.59 FEET, THENCE N.12°50'52"E. 584.64 FEET, THENCE S.88°41'25"E. 906.85 FEET, THENCE N.50°00'26"E. 914.93 FEET TO A POINT ON THE NORTH BOUNDARY OF SECTION 25, TOWNSHIP 14 SOUTH, RANGE 23 EAST, SAID POINT BEING N.89°52'13"E. 5518.92 FEET FROM THE NW. CORNER OF SAID SECTION 25.
CONTAINING 15.74 ACRES, MORE OR LESS.

AND

U.S. Government Lots 10, 11, 12, and Lot 13 EXCEPT the East ½ of SE. ¼ thereof, Section 18, Township 14 South, Range 24 East; and

The West ½ of NW. ¼ of Section 19, Township 14 South, Range 24 East.

That portion of the above described property lying West of the East taking line of Eureka Pool, said taking line being more particularly described as follows:

Taking Line:
Beginning at a point on the West boundary of Section 19, Township 14 South, Range 24 East, S.0°56'28"E., 1710.47 feet from the NW. corner of said Section; thence N.62°00'29"E., 513.66 feet; thence N.41°44'45"W., 1058.83 feet; thence N.10°28'27"E. 605.08 feet; thence N.49°50'04"E., 713.18 feet; thence S.38°14'47"E., 541.16 feet; thence S.54°43'08"E., 649.25 feet; thence S.37°39'14"E., 1023.10 feet; thence East 350.00 feet; thence N.31°18'15"E. 433.04 feet; thence S.87°08'15"E., 300.37 feet; thence S.19°00'39"E., 629.33 feet; thence S.49°38'42"E., 1135.10 feet; thence S.74°59'28"E. 702.05 feet to the Northwesterly right-of-way line of State Road No. 314, said point being 50.00 feet from and at right angle to the center line of said State Road; thence N.35°37'35"E., along said Northwesterly right-of-way line, 1124.11 feet; thence N.60°19'37"W., 480.96 feet; thence N.8°32'57"W., 773.60 feet; thenceN.29°18'18"W., 888.74 feet; thence S.73°20'18"W., 2197.25 feet; thence N.41°56'50"W., 1062.17 feet; thence N.55°18'17"E., 474.34 feet; thence S.82°15'59"E., 408.72 feet; thence N.26°10'38"E., 2312.15 feet; thence N.13°19'53"E., 1084.22 feet; thence N.35°32'16"E 774.21 feet; thence S.68°11'55"E., 619.29 feet; thence N.32°13'00"E., 431.42 feet; thence N.10°01'59"E., 660.09 feet; thence N.79°42'59"E., 380.65 feet to the East boundary of Section 18, Township 14 South, Range 24 East, said point being S.0°44'35"E., 116.07 Feet from the NE. corner of said Section.

Containing 148 acres, more or less.

AND

LOTS 4, 5, 48, 49 AND 50, GRAHAMVILLE, IN SECTION 36, TOWNSHIP 14 SOUTH, RANGE 23 EAST, ACCORDING TO PLAT THEREOF RECORDED IN PLAT BOOK "E". PAGE 32, OF THE PUBLIC RECORDS OF MARION COUNTY, FLORIDA, EXCEPT ANY PORTIONS LYING WITHIN ROAD RIGHT OF WAY.

THAT PORTION OF THE ABOVE DESCRIBED PROPERTY LYING WITHIN EUREKA POOL, THE TAKING LINE OF SAID POOL BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

TAKING LINE:

BEGINNING AT A POINT THAT IS 2069.08 FEET NORTH AND 2815.69 FEET WEST OF THE SE. CORNER OF THE NE.1/4 OF SECTION 2, TOWNSHIP 15 SOUTH, RANGE 23 EAST, THE BEARING OF THE EAST BOUNDARY OF SAID NE.1/4 BEING S.0°31'30"E., THENCE N.12°29'17"E. 763.05 FEET, THENCE N.43°50'59"E. 880.53 FEET, THENCE N.79°08'37"E. 371.65 FEET, THENCE N.54°54'59"E. 1026.50 FEET, THENCE N.20°23'15"E. 1392.21 FEET, THENCE N.2°23'09"W. 480.42 FEET, THENCE N.67°05'14"E. 526.55 FEET, THENCE S.49°53'57"E. 993.58 FEET, THENCE S.28°39'16"E. 1042.70 FEET THENCE S.56°18'36"E. 522.80 FEET, THENCE S.5°00'02"W. 1204.59 FEET, THENCE N.58°03'42"E. 907.36 FEET, THENCE S.39°26'49"E. 511.52 FEET, THENCE N.56°26'01"E. 642.07 FEET, THENCE N.42°47'17"W. 824.39 FEET, THENCE N.20°01'52"W. 510.91 FEET, THENCE N.67°22'49"W. 455.00 FEET, THENCE N.31°52'47"W. 482.83 FEET, THENCE N.19°34'23"E. 238.80 FEET, THENCE N.36°19'37"W. 422.02 FEET, THENCE N.68°23'40"W. 543.16 FEET, THENCE N.36°52'12"W. 1200.00 FEET, THENCE N.57°43'28"E. 561.81 FEET, THENCE N.24°03'06"E. 1631.66 FEET, THENCE N.6°41'28"E. 901.14 FEET, THENCE N.47°09'31"E. 1595.66 FEET, THENCE N.21°09'41"E. 997.25 FEET, THENCE S.86°52'25"E. 1191.77 FEET, THENCE S.48°53'37"E. 1353.70 FEET, THENCE N.69°26'38"E. 384.48 FEET, THENCE N.3°08'11"E. 365.55 FEET, THENCE N.45°45'38"W. 1598.20 FEET, THENCE N.83°26'01"W. 699.59 FEET, THENCE N.12°50'52"E. 584.64 FEET, THENCE S.88°41'25"E. 906.85 FEET, THENCE N.50°00'26"E. 914.93 FEET TO A POINT ON THE NORTH BOUNDARY OF SECTION 25, TOWNSHIP 14 SOUTH, RANGE 23 EAST, SAID POINT BEING N.89°52'13"E. 5518.92 FEET FROM THE NW. CORNER OF SAID SECTION 25.

CONTAINING 11.5 ACRES, MORE OR LESS.

AND

THAT PART OF GOVERNMENT LOT 7, NORTH AND WEST OF RIVER, IN SECTION 36, TOWNSHIP 14 SOUTH, RANGE 23 EAST.

CONTAINING 3.5 ACRES, MORE OR LESS.

shall revest in the Ocala Manufacturing Company, successor in interest to Ocala Manufacturing, Ice & Packing Company, upon the deposit in the registry of this Court of the sum of $ 395,848.50

DONE AND ORDERED in Ocala, Marion County, Florida, this 28th day of Sept, 1977.

S/ W. STURGIS
Circuit Judge

Copies to:

C. RAY GREENE, JR., ESQ.
Greene and Greene
2601 Gulf Life Tower
Jacksonville, Florida 32207

R. LEE SMITH, ESQ.
Smith, Davenport, Peek & Bloom
2601 Gulf Life Tower
Jacksonville, Florida 32207

RALPH E. ELLIOTT, JR., ESQ.
815 American Heritage Building
Jacksonville, FLorida 32202

Statement of Marvin J. Barloon
Carlton Professor of Economics, Emeritus
Case Western Reserve University, Cleveland, Ohio

Before

THE SUBCOMMITTEE ON WATER RESOURCES

OF

THE COMMITTEE ON ENVIRONMENT AND PUBLIC WORKS

UNITED STATES SENATE

July 26, 1978

Mr. Chairman and Members of the Committee:

My name is Marvin J. Barloon. I am Carlton Professor of Economics, Emeritus, at Case Western Reserve University in Cleveland, Ohio, where I have been in charge of research and instruction in the economics of transportation for many years. In this capacity, I have supervised the preparation of doctoral dissertations, presented research papers before meetings of learned societies, and published numerous articles on domestic transportation in professional journals and in general readership magazines. I have prepared published studies on transportation development for state governments and have appeared on various occasions as witness before committees of the United States Senate and House of Representatives, in addition to hearings of the Interstate Commerce Commission and other government agencies. I have served as consultant on transportation economics to various civic groups, trade associations, and private business firms. I am listed in Who's Who in America and in American Men and Women of Science. I am a member of the American Economic Association, the American Transportation Research Forum, and other professional societies.

I appear here today at the request of the Cross Florida Canal Counties Association, headquartered in Palatka, Florida, to evaluate the economics of the Cross-Florida Barge Canal project in connection with Senate Bill 1592 having to do with possible deauthorization of the project. Having served for some years as economic consultant to the Canal Authority of the State of Florida, I am quite familiar with the economic evaluations of this project which have been prepared under the auspices of the Jacksonville, Florida, District of the Army Corps of Engineers and with various issues involved in these evaluations.

Erroneous Inclusion of Existing Benefits and Sunk Costs in Project Evaluation

In its report of February, 1977, the Jacksonville District of the Corps purports to find, with respect to possible resumption of work and completion of the Cross-Florida Barge Canal, a ratio of benefits to costs of approximately 1.00 to 1.00, that is, that annual benefits of project completion during its service life would just about equal annual costs.[1] This is the reported finding with respect to the project design and alignment selected as best among the various options and identified as the "Selected Completion Alternative". The ratio is based on the legislatively-mandated interest-discount factor of 2 7/8 percent.

This reported benefits-cost ratio of 1.00 to 1.00 is substantially in error. Insofar as the economics of the project are concerned, the essential question now facing the United States Senate is whether or not at some future time it would be economically feasible to resume construction of the canal and bring it to completion. Therefore, the benefits-cost ratio should incorporate only those benefits and costs which would

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[1] U. S. Department of the Army, Jacksonville District, Corps of Engineers, Cross Florida Barge Canal Restudy Report, "Final Economics, Jacksonville, Florida, February, 1977, page 48.

be consequent on this decision. The Jacksonville District has included in its reported ratio both benefits and costs which would exist whether construction were resumed or not, which would therefore not be consequent on the decision to resume or not to resume construction, and which thus have no bearing on the question. The results have significantly distorted the economic decision base now before the Senate in a manner conducive to unintended and erroneous action by your Committee.

Irrelevance of Existing Benefits. In particular, the Jacksonville District has included annual benefits of $1,618,000 for flood control, recreation, and fishing and hunting which are derived from work performed on the project prior to the year, 1971, when construction was halted. The existing works are already yielding these benefits and will continue to yield them whether construction is resumed or not. They are therefore not relevant to the question of possible resumption and completion.

Irrelevance of Sunk Costs. The Jacksonville District has incorporated the same error in the cost elements of the benefits-cost ratio. Certain costs have been included which have already been irrevocably incurred whether construction is resumed or not and which are therefore irrelevant to the question before the Senate. Two such cost factors are included: (1) interest and amortization during the project's service life of the investment already made in the project in past construction and (2) a factor identified as "interest during construction" which includes hypothetical interest both during past construction and during the post-construction period.

Both of these cost categories are classified as "sunk costs", that is, costs which have been irrevocably incurred in the past and which the

action currently in question cannot alter. So far as I have been able to determine, the literature of competent economists on this question has been unanimous on the irrelevance of sunk costs and on the importance of omitting them from the benefits-cost analysis.

The Opinions of Economists on Sunk Costs

G. David Quirin expresses the point as follows:

> "For decision-making purposes in general, it is future costs, and not historical ones which are relevant. Capital expenditure decisions, involving the weighting of future benefits against present outlays, are no exception to this rule; indeed extra care should be taken to apply this standard."[1]

Dr. McKean of the RAND Corporation writes these words:

> "In determining the cost of retention, modification, sale or abandonment of existing facilities, one should not add in the historical cost of those facilities. Once they have been built, their cost is simply their worth in alternative uses, possibly in the scrap-pile."[2]

Krutilla and Eckstein are certainly among the leading authorities. They address the subject as follows:

> "The social cost of investment is the opportunity foregone from committing productive resources at a given time to one use as against another. Once the resources have been irrevocably committed, different criteria for the efficient management of existing plant become appropriate . . ."[3]

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[1] G. David Quirin, Associate Professor, University of Toronto, The Capital Expenditure Decision, Richard D. Irwin, Inc., Homewood, Illinois, 1967, pages 95-96.

[2] Roland N. McKean, The RAND Corporation, Santa Monica, California, Efficiency in Government Through Systems Analysis, With Emphasis on Water Resources Development, John Wiley & Sons, New York, 1958, page 124.

[3] John V. Krutilla and Otto Eckstein, Multiple Purpose River Development, The Johns Hopkins Press, Baltimore, Maryland, 1958, page 274.

The most recent publication on the subject is even more explicit. Sassone and Schaffer write as follows:

> "Society incurs the cost of producing capital when it is produced, for the social cost is the consumption opportunities currently precluded by devoting resources to capital construction instead of consumer goods. Only present and future costs are relevant to decisions; past (sunk) costs are not."[1]

Interest During Construction as a Sunk Cost. The quoted comments have to do with interest an amortization applicable to the projected 50-year service life of works already in existence. They apply equally to so-called "interest during construction" for past years. This is interest imputed to the period from 1964 to 1971 when construction of existing works was under way. This interest charge is no more involved in the current decision as to economic feasibility than are interest and amortization during service life. The so-called "interest during construction" also includes a charge imputed to the project from 1971 to the present. Inasmuch as no significant construction has been under way since 1971, the term, "interest during construction", is obviously a misnomer. In any event, it is a sunk cost at best and absolutely irrelevant to the present question of possible project completion.

It appears particularly perverse that these sunk costs have been charged against the present "Selected Completion Alternative". They were incurred on a different design and alignment from that presently selected and are thus irrelevant not only in their irrevocability but also in their irrelevance to the completion alternative against which they have now been charged.

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[1] Peter G. Sassone and William A. Schaffer, College of Industrial Management, Georgia Institute of Technology, Atlanta, Georgia, Cost-Benefit Analysis, A Handbook, Academic Press, New York, 1978, page 72.

Summary as to Existing Benefits and Sunk Costs. In 1935 and 1936, construction work was performed on the now-defunct Cross-Florida Gulf-Atlantic Ship Canal. The present barge canal plan has taken some advantage of this past and abandoned work. As of any time since 1971, there is no more logic in charging the more recent sunk costs of the 1960's against project completion than there would have been in charging those of the 1930's, of equal irrelevancy. If, in 1978, one is going to charge past non-recoverable costs against completion of the Cross-Florida Barge Canal, he might as well go back to the beginning.

In sum, sunk costs, that is past costs already irrevocably incurred by construction work during previous years, will not be incurred by virtue of a possible decision to engage in future work. Neither will they be either reduced or eliminated by a possible decision not to engage in future work. They are therefore totally irrelevant to any decision as to future work on the Cross-Florida Barge Canal project. The same is true of existing benefits derived from past construction, that is, of benefits which will be derived whether construction is resumed or not.

The benefits-cost analysis of the Cross-Florida Barge Canal completion project, both as reported by the Jacksonville District and as corrected by the removal of existing benefits and sunk costs, appear in Appendix A. It will be noted that, in the absence of these irrelevant items, the ratio of benefits to cost is 1.22 to 1.00.

Omission of the Projected Movement of Electric Utility Coal

Even the ratio of 1.22 appears to be conservative to an unrealistic degree. Projected benefits have been confined to only those which are

most certain and measurable. The benefits which might have been projected for the transportation of coal to Florida east coast electric utilities have been omitted, apparently not because of any supposed improbability, but because of the lack of a specified origin. Being uncertain as to the source of the prospective coal movement, the analysts of the Jacksonville District were unable to assign a precise benefit estimate and therefore left it out entirely. The wording of the District report on this question is as follows:

> "The mean of the savings estimate from the Shawneetown, Illinois, area to the Jacksonville area is approximately $2.50 per ton. The annual savings on 2 million tons would be $5 million. This potential benefit has not been included in the final benefit estimate because of the uncertainty surrounding the exact location of the origin and the sensitivity of the savings to that parameter."[1]

The benefits were thus neglected in spite of their virtual certainty. They applied to plans of the Jacksonville Electric Authority, and the Jacksonville District refers to these as follows:

> "Recent discussions with the Jacksonville Electric Authority (JEA) indicate that it is <u>almost certain</u> that JEA will be using coal for their added capacity in the near future . . . These coal fired units will require approximately 2 million tons of coal annually. A. T. Kearney has determined that the Southern Illinois-Western Kentucky area is the most likely source of coal for rate calcualtion purposes for JEA."[1] (Emphasis supplied.)

I am informed that, since the above-quoted report was prepared, the Seminole Electric Cooperative, headquartered in Tampa, has programmed construction of a coal-burning plant on the St. John's River near Jacksonville and that, as A. T. Kearney had anticipated for JEA, this

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[1] U. S. Department of the Army, Jacksonville District, Corps of Engineers, <u>Cross-Florida Barge Canal Restudy Report</u>, "Final Economics", Jacksonville, Florida, February, 1977, pages 14 and 15.

coal is to come from western Kentucky. I am further informed that tentative plans call for receipt in unit trains of 10,000 tons each.

The feasibility of barge and barge-ocean transportation of coal from western Kentucky to Florida points is well established. Large and growing tonnages of western Kentucky coal are now moving all-water to electric utilities in the Pensacola and Tampa areas.

The Unit Train as an Alternative to Waterway Carriage. The prospective benefits of water transportation in comparison with the unit train concept are several. Even if unit trains are to be utilized, it remains very important that the receiving utility possess a feasible alternate routing. Reliability of the utility's service is involved. As an example, the Northern States Power Company, headquartered in Minneapolis, now receives most of its coal by unit train from eastern Montana but continues to receive some coal from southern Illinois by barge up the Mississippi River in the interest of reliability.

Service Characteristics of Unit Trains. In addition, it should be noted that unit trains do not represent the equivalent of barging service. Unit trains must normally be unloaded in a very short time, usually 24 to 48 hours. Minimum trainloads of 10,000 tons to be unloaded so quickly place special and costly demands upon the receiving facilities of the utility. In addition, railroads usually demand a very large minimum annual tonnage in order to justify the use of dedicated equipment. By contrast, the average river barge carries only about 1,200 tons; it does not require rapid unloading; and an annual minimum tonnage need not ordinarily be specified for the transportation service.

High Rates of Non-Competitive Unit Train Movement. It is only in competition with other modes of transportation, such as water carriage and

coal slurry pipelines, that unit train rates are low. Otherwise they are high. The movement of coal by the Burlington Northern Railroad from eastern Montana to the Minneapolis area is directly competitive with barge receipt from southern Illinois via the Mississippi River. Barging charges on the Mississippi are about 4.5 mills per ton-mile.[1] But, on the river movement, the coal originates inland by rail, the river distance is longer, and the river is frozen up during the winter months. In competitive response, the Burlington Northern undercuts the overall river charge slightly by charging 6.6 mills per ton-mile in unit train-loads of 10,000 tons each.

On the other hand, in the absence of competition, unit train rates are much higher. There is no waterway available to the large electric utility at Cochise, Arizona. Thus, the unit train rate from coal origins at Gallup, New Mexico, to Cochise, Arizona, is 17.7 mills per ton-mile, over 2½ times as high as the water-competitive Burlington Northern rate to Minneapolis. Such examples could be multiplied.

In the absence of the Cross-Florida Barge Canal, therefore, it must be taken for granted that unit train receipt of coal with cost and service characteristics comparable to waterborne receipt will simply not be available and that, therefore, the coal-receiving benefits of the canal to Florida would be substantial.

The Alternative of Barge-Ocean Movement. The possible alternative of coal receipt on the Florida east coast via the ocean should also be evaluated. Western Kentucky coal barged down the Mississippi is now transloaded in the New Orleans area and delivered across the open Gulf

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[1] A mill is 1/10 of a cent, and a ton-mile is one ton carried one mile.

in deep-draft vessels to the Tampa and Crystal River areas. However, I am informed that the planned power plant of the Seminole Electric Cooperative on the St. John's River is on shallow-draft water, inaccessible to oceangoing vessels. Location of electric generating stations on deep-draft ocean frontage is, of course, normally very costly. Deep-draft berthing frontage is scarce and expensive. On shallow-draft waters, by contrast, berthing areas are virtually ubiquitous. Electric generating stations are large-scale users of water, especially for cooling purposes, requiring fresh water in major quantities. For these reasons, siting of new generating stations on salt-water harbors would often not be a feasible choice of location.

Present Estimate of Coal Movement Benefit Via CFBC. For a correct and truly informative evaluation of the possible completion of the Cross-Florida Barge Canal, the prospective receipt of coal for east coast utilities should certainly be fully considered. Taking into account the realities I have indicated, barge receipt should be weighed against the costs of the lowest-cost alternative mode and routing, including those costs representing differential service and locational characteristics.

As an indication of the potentials of the coal movement, the Jacksonville District of the Corps estimates for the Cross-Florida Barge Canal an annual benefit of $5 million. When discounted to present values, this estimate is presented at $2 million per year for the 50-year service life of the project.[1] Were this the correct benefit figure to be included, the benefits-cost ratio would be more correctly stated at 1.37 to 1.00.

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[1] U. S. Department of the Army, Jacksonville District, Corps of Engineers, Op. Cit., page 19.

The Proposed Gulf Coast Transloading Facility

It may be noted in passing that there has been controversy over the possible construction of a transloading facility near the western terminus of the canal. This facility would transfer cargo between oceangoing vessels and shallow-draft canal barges and would add to the prospective tonnage transiting the canal. Critics of the barge canal project have contended that the inclusion of the transloaded tonnage would overstate the prospective benefits.

The question of the transloading facility is moot with respect to the benefits-cost estimates I have presented of 1.22 and 1.37. The Jacksonville District of the Corps reports that the previously projected tonnages and benefits attributable to the transloading facility have been removed from the benefits I have incorporated in these ratios.[1]

Conservatism of the Estimates of Traffic Growth

The extreme conservatism of the Jacksonville District of the Corps in its benefit estimates is reflected in the projections of traffic growth. The District analysts project a growth in annual all-commodity tonnage over the 50-year life of the project at approximately 1.5% per year. The actual growth rate of ton-miles carried on the U. S. shallow-draft inland waterways from 1956 through 1976 has been 5.3% per year, over three times the rate projected for the canal.

With respect to the particular waterways now serving the State of Florida, in a previous study I have determined that from 1960 to 1970 the actual growth in tons carried yearly on the Gulf Intracoastal Waterway

[1] U. S. Department of the Army, Jacksonville District, Corps of Engineers, Op. Cit., page 19.

in the reach between Panama City and Pensacola, Florida, had been at the rate of 6.2% per year and, on the Atlantic Intracoastal between Norfolk, Virginia, and the St. John's River, at the rate of 4.2% annually. It is evident that the 1.5% projection of the Jacksonville District is so conservative as to be almost unrealistic. A more rapid rate of growth is highly probable, significantly raising the ratio of benefits to cost.

The Interest-Discount Rate

There has been much controversy as to the appropriate interest-discount rate to be employed in the canal evaluation. Application of this rate at any level has the effect of reducing the stated present value of future project benefits and of increasing stated costs. The higher the rate employed, the lower the present value assigned to the benefits and the higher the assigned cost. A higher rate, therefore, would reduce the reported ratio of benefits to cost. The rate employed by the Jacksonville District of the Corps to the canal project is 2 7/8%. Critics assert that this is much too low.

In application to any one project, such as the Cross-Florida Barge Canal, the issue of the appropriate interest-discount rate is moot. This rate was mandated by Public Law 93-251, Title I, Section 80, 88 Statute 34, which is part of the Water Resources Development Act of 1974 (42 U.S.C. 1962d-17). This statute directs that Federal officials, in the evaluation of water and related projects, shall use the interest-discount rate in effect immediately prior to December 24, 1968, and that such rate shall continue to be used until construction has been completed. This provision applies to all projects authorized before January 3, 1969. The Cross-Florida Barge Canal project was so authorized and is therefore covered by this provision.

The Jacksonville District of the Corps explains its use of the 2 7/8% rate in these terms:

> "The interest rate of 2 7/8 percent was the rate in effect for Fiscal Year 1964, the year in which construction appropriations were first provided for the CFBC project and is the legal interest rate to be used in evaluating the feasibility of constructing the CFBC project as authorized."[1]

This is thus a grandfathered rate applying equally to all water resource projects in the country authorized and for which appropriations had been made prior to the cut-off date. Since 1974, large numbers of other projects in all parts of the United States have been repeatedly evaluated on this basis; construction funds have been provided, and, on many, construction has been completed under the grandfathered discount rates. In a number of instances these rates have been either at 2 7/8% or lower.

There would be no logic in selecting some one project, such as the Cross-Florida Barge Canal, exclusively of most others similarly grandfathered, and declaring that the evaluation of this one, viewed by itself, is of questionable validity because of the grandfathered interest-discount rate.

A uniform policy as to the interest-discount rate on all projects authorized and funded before the cut-off date was adopted by Congress in 1974. This policy has facilitated comparison as between projects and the determination of inter-project priorities, so that to depart from it prejudicially with respect to some one project would disrupt such priority determination. Furthermore, such selectivity would constitute a flagrant discrimination as between individual projects and as between the various localities and regions of the country these respective projects serve.

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[1] U. S. Department of the Army, Jacksonville District, Corps of Engineers, Op. Cit., page 2.

In short, I do not see how the Congress can judge any single project adversely on the basis of the grandfathered rate without substantial injustice, discrimination, and violation of established policy. I trust, therefore, Mr. Chairman, that your Committee, in good conscience, will dismiss the question of the interest-discount rate as moot in its application to the Cross-Florida Barge Canal.

In conclusion, let me say that the rate of 2 7/8%, while controversial, is also defensible on economic grounds and that a number of economists would defend it. I shall disregard this area of consideration, however, not only to save time, but also because it is evident that, having adopted the policy of the grandfathered rate, the Congress would stultify itself were it to reconsider the issue prejudicially against a single project at this time.

APPENDIX A.

BENEFITS-COST RATIOS OF THE CROSS-FLORIDA BARGE CANAL PROJECT WITH AND WITHOUT EXISTING BENEFITS AND SUNK COSTS

"Selected Completion Alternative"

(Interest-Discount Factor 2 7/8%)

	As Reported By Jacksonville Dist. (Including Existing Benefits & Sunk Costs)	Excluding Existing Benefits & Sunk Costs
	(000)	(000)
Annual Benefits:		
Transportation	$ 12,950	$ 12,950
Flood Control	3	2
Recreation	4,465	3,802
Fishing & Hunting	1,010	56
Total Annual Benefits	$ 18,428	$ 16,810
Annual Costs:		
Interest & Amortization	$ 14,618	$ 10,703
Operation & Maintenance	3,762	3,062
Total Annual Costs	$ 18,380	$ 13,765
Ratio of Benefits to Costs	1.00	1.22
Investment:		
Construction Cost:		
Previously Completed Works	$ 73,244	---
Remaining Works	255,897	$ 255,897
Total Construction Cost	$ 329,141	$ 255,897
"Interest During Construction"	56,066	26,150
Total Investment	$ 385,207	$ 282,047

SOURCE: All data as reported by U. S. Department of the Army, Jacksonville District, Corps of Engineers, Cross Florida Barge Canal Restudy Report, Final Economics, Jacksonville, Florida, February, 1977, pages 43, 48, and 58.

STATEMENT OF

MARJORIE H. CARR

AND

DR. JOHN H. KAUFMANN

FOR

FLORIDA DEFENDERS OF THE ENVIRONMENT, INC.

BEFORE THE

SENATE COMMITTEE ON ENVIRONMENT AND PUBLIC WORKS

WATER RESOURCES SUBCOMMITTEE

ON S. 1592

95TH CONGRESS, 2ND SESSION

JULY 26, 1978

My name is Marjorie H. Carr. I am president of Florida Defenders of the Environment, Inc., a statewide, non-profit conservation organization with headquarters in Gainesville, Florida.

I am particularly pleased to speak to you in support of SB 1592 because I am one of a group of Florida citizens who have been actively working to prevent the construction of the Cross Florida Barge Canal since November, 1962, when we first perceived the great damage its construction would wreak on the Florida environment, and when we first realized that the canal project was not economically justified. Nine years ago a coalition of some 400 specialists in several disciplines, including ecology, economics, hydrology, land planning and law, formed the Florida defenders of the Environment. For nine years teams of FDE specialists have addressed themselves to the many facets of the barge canal problem. Throughout these years we have prepared a great many statements and reports, all of which we have made available to government and the press. We have also worked closely with other citizen organizations throughout the state.

And so this morning I am also representing the Florida Audubon Society (35,000 members), the Florida Federation of Garden Clubs (30,000 members), the Florida Wildlife Federation (40,000 members), the Florida Group of the Sierra Club, the League of Women Voters, the Florida Division of the Izaak Walton League of America, the Florida State United Auto Workers, the Florida Conservation Foundation, and the Florida Wildlife Society. All of these organizations strongly recommend deauthorization of the CFBC. I am submitting their separate statements for the record.

In a few minutes my colleague, Dr. John Kaufmann, will summarize for you the reasons why we believe this bad Corps project should be deauthorized. Before he makes his presentation I want to emphasize the extensive research that has been carried out and the calibre of the specialists who have studied and reviewed the barge canal problems. It has been FDE policy to collect all the available, pertinent material relating to the barge canal, analyze it, reproduce the substantive statements and reports, and then provide this information to teams of specialists for their further study and criticism. The fact that our indexed file on

CFBC material now contains over 3,000 documents indicates to some extent the thoroughness of our preparation. FDE has earned a reputation for soundness and integrity, and that is undoubtedly one reason we have had the considerable help and cooperation of many recognized authorities. And let me add that these specialists have done their work free of charge.

Dr. Kaufmann's statement will cover three main areas of concern: economics, ecology, and hydrology. I think it will be helpful to you if you know that his remarks relating to these areas are based on the results of in-depth studies by the following specialists:

Economics: Dr. Paul Roberts, formerly Assistant Professor of Economics at the University of Florida, now a private Economic Consultant; Dr. Henry Fishkind, Associate Professor of Economics, University of Florida; Dr. William Vickrey, McVickar Professor of Political Science at Columbia University; Dr. Robert Haveman, Professor of Economics at the University of Wisconsin; and Dr. Joseph L. Carroll, Professor of Business Administration and Head, Transportation Systems Division, Pennsylvania Transportation Institute, the Pennsylvania State University;

Ecology: Dr. Archie Carr, Graduate Research Professor of Zoology at the University of Florida; Dr. Ariel Lugo, formerly Associate Professor of Botany at the University of Florida, now on the staff of the Council on Environmental Quality, Washington, D. C.; Dr. James Layne, Director of the Archbold Biological Station in Lake Placid; Dr. George K. Reid, Professor of Zoology at Eckerd College in St. Petersburg; Dr. Samuel Snedaker, formerly Associate Professor of Botany at the University of Florida and now Professor of Marine Ecology at the University of Miami; and Dr. John H. Kaufmann;

Hydrology: Dr. Martin Mifflin, formerly Professor of Geology at the University of Florida, and now research scientist with the Center for Water Resources, Las Vegas; Dr. Ignacio Garcia-Bengochea, hydrologist and senior vice president of the prestigious consulting firm of Black, Crow & Eidsness, Gainesville; and Mr. Garald Parker, Certified Professional Geologist (C.P.G. 691), and Visiting Professor of Hydrology and Hydrogeology at the University of Florida. Let me add that Mr. Parker, who has worked with the aquifers in Florida for more than 30 years, described and named the great Floridan aquifer, the water-bearing rocks through which canal

construction was proposed.

Many of the separate statements of these specialists will be submitted for the record as appendices to our statement.

At this time I would like to introduce Dr. Kaufmann, who will briefly state our reasons for urging passage of SB 1592.

Thank you.

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My name is John H. Kaufmann. I am a Professor of Zoology at the University of Florida and Chairman of the Science Advisory Committee of Florida Defenders of the Environment.

There are so many things wrong with the Cross-Florida Barge Canal that explaining all of them in detail would take days. Therefore I will briefly summarize in the next ten minutes our findings of the last ten years. We will submit for the record 20 supporting documents from various specialists. The canal project's failings fall into three main categories: economics, ecology, and hydrology.

Economics

Corps of Engineers waterways projects have traditionally been evaluated primarily on the basis of their benefit-cost ratios. If we accept the Corps' benefit-cost calculations for this project at face value, the project would return only 50 to 70 cents on the dollar at current discount rates of 6 to 7 percent. Any discount rate lower than this is economically unrealistic and unacceptable to the citizens and government of the State of Florida. Even at the obsolete rate of 2-7/8% the project barely breaks

even in the Corps' benefit-cost evaluation. Any decrease in the alleged benefits or increase in the claimed costs would result in a benefit-cost ratio of less than one, using the absurd discount rate of 2-7/8%. (Appendices 1, 2, 3, 12, 13F.)

The alleged economic benefits of this project have been grossly inflated in many ways:

1) The navigation benefits projected by the Corps are highly speculative. Over 80% of the traffic for which savings are claimed is "future" or "induced" traffic--traffic which is not now moving by any transportation mode. It is ludicrous to assume that all of this traffic will eventually occur and, further, that it will all move via the Cross-Florida Barge Canal. (Appendices 3, 6.)

2) The speculative "induced" move was estimated by the Corps' transportation consultant (A. T. Kearney & Co.), in accordance with Corps regulations, to produce an annual savings of $862,000. The Corps inflated these "savings" by 400%--to $4.3 million annually--by "reinterpreting" their own regulations (Final Economics Report). Responsible transportation economists who have reviewed these manipulations have stated that IF this move should ever take place, which is

doubtful, the TRUE savings would probably be only $431,000 annually. This is one-half of Kearney's figure, and one-tenth of the Corps' figure. This correction alone would make the canal uneconomical at any discount rate. (Appendices 1, 2, 4, 5.)

3) The comparative freight rates used by the Corps to figure transportation savings are highly suspect (Appendices 6, 12, 13F). Actual costs should have been used instead, as pointed out by a Corps contractor, Meta Systems, Inc., in the Corps' Final Economics Report.

4) The transportation savings claimed represent gross savings to shippers, not net savings to the nation's economy. The resulting losses to competing modes of transportation were ignored. This was also pointed out by Meta in the Final Economics Report. (Appendices 1, 2, 5, 6, 12.)

5) Repeated irresponsible attempts have been made by canal supporters to boost the transportation benefits by predicting millions of dollars in annual savings on coal shipments to the Jacksonville Electric Authority (JEA). The JEA uses no coal now but anticipates using some in the future. Studies done for the Corps by Kearney (Final Environmental Impact Statement) and for the JEA (Appendix 9) show that

coal for the JEA may very well be shipped more cheaply by rail or by deep water ship than by barge. Thus there is no basis whatever for calculating any coal shipping benefits for the Cross-Florida Barge Canal.

6) Although the canal was proposed as a navigation project, even the inflated shipping benefits do not come close to producing a benefit-cost ratio of one at the obsolete 2-7/8% discount rate. Recreation benefits have been added to make up the difference, and these benefits now account for 24% of the total benefits claimed for the project. But 75% of the alleged recreation benefits could be realized, according to the Corps' Final Economic Report, without spending one cent for additional canal construction. (Appendix 12).

7) Some of the claimed recreation benefits are highly questionable. These include $1.5 million annually for swimming on some spoil islands, several miles offshore in the Gulf of Mexico, which can be reached only by boat. They also include $642,000 annually for a stretch of canal ditch with 11 picnic tables and 11 miles of trails (Appendices 1, 10, 12, 13F).

8) All of the alleged recreation benefits represent transfers from other local waters, not net benefits to

the area. According to the Corps' Final Economics Report, " . . . sufficient lake-type recreation is currently available in the region of Florida through which the canal would pass." (Appendix 10.)

9) The fishing benefits, figured separately from the recreation benefits, have been inflated by assuming no decrease in fishing effort during the 50-year life of the project, even though the Final Environmental Impact Statement points out that fishing in the canal reservoirs would inevitably decline.(Appendices 11, 13A, 13E).

The costs of the project have been grossly underestimated in several ways:

1) Contrary to Judge Harvey Johnsen's order, the Corps refuses to assign any value whatsoever to the aesthetic, recreational, wildlife, fishing, and water resources that would be destroyed or degraded by canal construction. If only a small fraction of these costs were included in the benefit-cost evaluation, as the judge ordered, the project would be a big loser at ANY discount rate. Some of these costs are absolutely certain and could be estimated by the same methods used to estimate benefits for recreation, fishing, et cetera. Other costs, such as the danger of water

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pollution, are in the category of "environmental risk." The Governor and Cabinet of the State of Florida have suggested that such risk be accounted for by substantially raising the discount rate for projects such as the Cross-Florida Barge Canal. This has not been done. (Appendices 1, 2, 3, 11, 12, 13F.)

2) The cost of water weed control in canal impoundments has been understated by two to four million dollars annually. Water weed specialists from the U. S. Department of the Interior and the Florida Game and Fresh Water Fish Commission have pointed out that the recreation and fishing benefits claimed by the Corps cannot be realized if the Corps controls water weeds in only 1% of the canal impoundments, as budgeted by the Corps in their benefit-cost calculations. (Appendices 11, 12, 13C.)

3) The canal construction costs are presented only as a lump sum, preventing any evaluation of their validity. A Congressional Oversight Committee reported that in 1972 and 1973 the actual cost of all Corps waterways projects averaged 80% more than the costs used by the Corps to justify the projects. And Senator Proxmire stated in 1976 that the Corps' cost overruns on 178 waterways projects averaged 110%.

All of these points can be accurately summed up by stating that the Cross-Florida Barge Canal is simply a very bad economic investment.

Even though the canal is a bad investment for the American taxpayers, some people in the immediate canal area would welcome it if it would have a significant impact on the local economy. Canal boosters have made extravagant claims in this regard. We have been told, for example, that the canal would produce 27,000 new jobs, or that it would bring a billion dollar boost to the local economy. These claims have been branded as frivolous by competent economists, as they are based on distorted facts and faulty computations. (Appendices 3, 7, 8, 12.)

The truth is that the canal restudy reports show that canal completion would result in little if any induced industrial development, and in the creation of relatively few new jobs. No industries or other forms of economic activity could be found that would be attracted to the canal area. The canal lands CAN produce a significant boost to the local economy, but only if the canal-scarred lands are restored and use made of their potential for attracting tourists. Restoration of the Oklawaha River Valley, and

its designation as a National Wild and Scenic River, would add a new dimension to Florida's tourist industry.

Ecology

The original opposition to the Cross-Florida Barge Canal came from citizens concerned over the canal's effect on the rich and beautiful Oklawaha River Valley. This is still a major concern of Floridians. The Oklawaha River Basin is a unique subtropical ecosystem showing unusual diversity in its plants and animals. Its aesthetic, recreational, sporting and scientific values are enhanced by the scarcity of other unspoiled wild rivers in Florida and, indeed, the nation. The Oklawaha Valley has already been severely impacted by the creation of Rodman Reservoir; completion of the canal would bring similar destruction in varying degrees to the remaining half of the valley above Rodman, and would, as admitted by the Corps, " . . . eliminate the Oklawaha Regional Ecosystem as an entity." (Final Environmental Impact Statement.)

Much of the remaining river valley forest would be destroyed, the river would be severely impacted, and the wildlife would suffer. Thousands of acres of scarce forest types would be lost, including the habitat of several species

of Endangered and Threatened plants. Most of the benefits to wildlife claimed for canal construction would be minor, temporary, and chiefly to common species. The harmful effects, however, would generally be of major importance, permanent, and would affect more Endangered and Threatened species. Many terrestrial animals, including ten Endangered and Threatened species, would permanently lose large areas of scarce river forest habitat. Even many aquatic and water-associated species would lose more from canal construction in the long run than they would gain. Some species of birds would gain temporary benefits from flooded tree habitats in the new reservoirs, but when the trees fell these birds would end up with less habitat than before the canal was built. Eagles and ospreys would gain non-critical feeding habitat, but would lose potential nesting habitat. The Endangered manatee would inevitably suffer increased losses through collisions with boats and barges and from being crushed in the locks. Critical habitat for the manatee has been declared close to both the east and west ends of the canal. Perhaps most important of all, the once continuous river forest habitat would be permanently interrupted by large impoundments, thereby destroying much of the area's value

for wide-ranging species such as the panther and black bear that require large areas of contiguous, undisturbed habitat. Even fishing would suffer in the long run. Because of the serious water weed problem, and the shallowness of the impoundments, the canal impoundments could not be managed simultaneously for both fishing and navigation. Furthermore, Rodman Dam has eliminated the once-famous spawning runs of shad and striped bass up the Okalwaha River (Appendices 11, 12, 13B, 13C, 13D, 13E).

Peninsular Florida has a surplus of flat-water lakes, while unspoiled free-flowing rivers are scarce and fast disappearing. Furthermore, according to the Corps' reports and the State's own recreation survey, the recreation offered by the river valley is of much higher quality than that offered by impoundments. Canal completion would substitute a surplus, poor quality resource, for a scarce and valuable one. (Appendices 10, 12, and the 1976 Economic and Environmental Restudy Reports.)

Hydrology

Probably the one environmental issue of greatest concern to all Floridians is the quality and quantity of their water supply. Construction and operation of the canal

would have adverse effects on both the quality and quantity of water available in the canal region.

The canal would be cut down into the aquifer, the layer of porous and fragmented limestone which provides the region's supply of fresh water. The canal is designed so that the barges must float on aquifer water; thus there would be continuous exchanges of water between the canal and the rest of the aquifer. Pollutants, especially water-soluble ones, introduced into the canal waters could pass freely into the aquifer.

The two main sources of dangerous aquifer pollution would be from toxic substances spilled from barges and from surface water polluted with high levels of coliform bacteria. Some canal waters have already exceeded legal maximums for coliform bacteria concentration. In addition, canal construction could cause turbidity in the groundwaters, which could cloud water in wells and natural springs such as world-famous Silver Springs.

The threat of serious contamination of the aquifer has been confirmed by the U. S. Geological Survey, and by several independent experts in hydrology in their testimony at the public hearings held by the Corps and by the State of

Florida. All of these experts have had extensive professional experience with construction projects affecting the aquifer; one of them, Licensed Geologist Garald L. Parker, originally described and named the Floridan aquifer. (Appendices 11, 12, 12A, 14, 15, 17, 18, 19, 20.)

Contrary to claims by canal proponents that the canal project would be a water conservation project, the opposite would be true. Canal operation would preempt, during times of water shortage and drought, water needed locally for drinking, for agriculture, for industry, and for fish and wildlife. Furthermore, hundred of millions of gallons per day would evaporate from the warm, shallow reservoirs and ditches. Hundreds of millions of gallons more would pass through the locks and out to sea. (Appendices 11, 12, 13A, 16, 17.)

The canal reservoirs are not designed to store water. They are so shallow that the water level cannot be fluctuated sufficiently to provide large amounts of water for other uses and still operate the canal. Furthermore, compared to aquifer water, impoundment waters would be of poor quality as a result of, among other things, high coliform bacteria counts. Therefore, future regional demands

for water must be met by pumping water from the aquifer or spring runs, not the impoundments. A large enough demand could lower the level of the aquifer water on which the barges must float. If the water level drops just one to two feet below that for which the canal is designed, only barges with wheels could navigate the canal. And current demands have lowered the groundwater level by up to 60 feet in heavily populated areas of Florida that are already looking toward the canal area for their water. In the future, continued use of the canal might only be possible by denying water for industry and for drinking to these areas of rapid population expansion. (Appendix 12.)

Conclusion

It is incredible that a project this bad could remain alive so long. It is an economic boondoggle and an environmental disaster. We ask your help in finally laying it to rest for good.

Thank you.

APPENDICES FOR SENATE STATEMENT OF JOHN H. KAUFMANN

1. Roberts, Paul. Comments on Economic Analysis of Cross-Florida Barge Canal. August 30, 1976.

2. _____. Statement to Governor and Cabinet of Florida. December 17-18, 1976.

3. Carroll, Joseph. Statement to Governor and Cabinet of Florida. December 17-18, 1976.

4. _____. Letter to Dr. David Anthony. October 6, 1976.

5. Vickrey, William. Letters to Dr. David Anthony. October 5, 13; November 14, 1976.

6. Fishkind, Henry. Memorandum to FDE: Meeting with Corps of Engineers on June 24, 1976. July 12, 1976.

7. _____. Memorandum to FDE: Employment Impacts of the Cross-Florida Barge Canal. October 27, 1976.

8. _____. Memorandum to FDE: Mr. Giles Evans' Claim of $1 Billion Impact on the Jacksonville Economy Due to the Cross-Florida Barge Canal. December 3, 1976.

9. Anonymous. "JEA's Best Deal May Be to Buy Indiana Coal; Have It Delivered to New 600 Megawatt Plant in Joint Water/Rail Move Via Tennessee River." Article from Jacksonville Seafarer on consultant's report to the Jacksonville Electric Authority. February, 1978.

10. Kaufmann, John. Comments on the Recreation Benefits Claimed for the CFBC Project. August 30, 1976.

11. Kaufmann, John, and David Anthony. Comments on Environmental Concerns Associated with the Cross-Florida Barge Canal. September 1, 1976.

APPENDICES (Continued)

12. Florida Defenders of the Environment. A Message to Congress. March, 1977.

13. Dasmann, R. F., M. H. Carr, W. M. Partington, and W. B. Robertson (eds.) Environmental Impact of the Cross-Florida Barge Canal with Special Emphasis on the Oklawaha Regional Ecosystem. March, 1970. 115 pp.
A. Hydrology, pp. 17-19, 65-79.
B. Terrestrial vegetation, pp. 25-33, 89.
C. Aquatic plants, pp. 81-87.
D. Terrestrial wildlife, pp. 35-42, 90-93.
E. Aquatic animals, pp. 43-46, 94-95.
F. Economics, pp. 104-112.

14. Mifflin, Martin. Comments on: Cross-Florida Barge Canal: Water Quality Aspects with a Section on Water Assimilative Capacity: U. S. Geological Survey, Water Resources Investigations No. 76-23, May 1976. July, 1976. (Appendix 20 is the USGS reply.)

15. _____. Pollution of Groundwater. August 30, 1976.

16. _____. Water Conservation Aspects of the CFBC. August 30, 1976.

17. Garcia-Bengochea, J. I. Statement to Governor and Cabinet of Florida. December 17-18, 1976.

18. Florida Defenders of the Environment. Solution Channels and Pollution of the Floridan Aquifer. March, 1977.

19. Parker, Garald. Statement to Governor and Cabinet of Florida. December 17-18, 1976.

Radlinski, W. A., Acting Director, U. S. Geological Survey. Letter to Marjorie H. Carr. August 27, 1976.

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COMMENTS ON ECONOMIC ANALYSIS OF CROSS-FLORIDA BARGE CANAL

By Dr. Paul E. Roberts, Economist, Florida Defenders of the Environment
for Division of State Planning Meeting, Tallahassee, August 30, 1976

OUTLINE

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COMMENTS ON ECONOMIC ANALYSIS OF CROSS-FLORIDA BARGE CANAL

By Dr. Paul E. Roberts, Economist, Florida Defenders of the Environment
for Division of State Planning Meeting, Tallahassee, August 30, 1976

I. INTRODUCTION

Some of the information relevant to the economic analysis for the Cross-Florida Barge Canal (CFBC) by the U.S. Army Corps of Engineers (CE) is contained in four separate CE Reports.[1] We emphasize that the data are not presented in any coherent or consistent manner in any of these references.

There are two areas of immediate concern that we wish to emphasize from the outset. The first is the denial of access to the Confidential Appendices C-K of the Kearney Transportation Report which contain relevant data and assumptions used by the CE to generate their navigation benefits. The second has to do with the emphasis placed on the Preserve alternative in their economic analysis.

It appears that the CE, despite its claim of neutrality on this project, is desperately struggling to protect the obviously deficient and increasingly suspect transportation benefits. Failing that, it seems to be trying to push the Preserve alternative (for a later try perhaps?) by emphasizing an incomplete and invalid assessment of the economic value of the non-contruct alternatives.

II. CORPS OF ENGINEERS REFUSAL TO RELEASE NEEDED INFORMATION

FDE has made repeated attempts[2] to obtain the data and the CE's instructions to the contractor contained in these confidential appendices, consistent with the law and the CE's desire not to place any firm at a competitive disadvantage by revealing trade secrets. FDE has no desire to breach any confidential relationship the CE may have with any specific firm with respect to potential movements of commodities on the proposed CFBC. But, we do need the data (with company names deleted), and we need the CE's directions to the Kearney Corporation on how the data were to be collected and analyzed. This latter would certainly not expose any trade secrets; it would of course expose any weaknesses in the methodology used, and any mistakes in the computations and interpretations made

by Kearney or the CE.

FDE economists, among others, pointed out gross errors in Kearney's published transportation benefits report which produced a $6.27 million (45%) overestimate of their transportation benefits. These errors have since been corrected (Economics Report, page 17, table 7a). Since the published figures were in such gross error, we can only speculate on the results of a careful scrutiny of the information which the CE is so desperately trying to keep secret.

On August 20 we were informed that the CE has decided to permanently deny us (and you) access to all of this important information. We have been forced to seek redress in court under the Freedom of Information Act.

III. CORPS OF ENGINEERS BIAS TOWARD PRESERVE ALTERNATIVE

The second area of immediate concern is the CE bias toward the Preserve alternative as the most economically feasible non-construct option. Their rankings of the economic desirability of the various non-construct alternatives in the main body of the Economics Report (page 40) in the Summary volume (page 22), and the Draft E.I.S. (page 118), are in direct conflict with those of the CE contractor charged with determining the best use of the Oklawaha River Basin.[3] The latter report is briefly summarized in Appendix B II of the Economics Report, but is not mentioned in the Draft E.I.S. Quite simply put, the best use for the region, economically as well as environmentally, depends on the restoration of the river valley as it was prior to the creation of Rodman Reservoir.

The Preserve option is made to seem attractive in three ways: 1) Highly questionable recreation benefits are given for Rodman Pool and for the West End Reach under Preserve, while ignoring substantial West End benefits under the Restore and Abandon alternatives. 2) The costs of maintaining Rodman Reservoir are apparently understated. For example: the costs associated with preserving the highly touted recreational and fishing benefits of Rodman seem low, as they provide for hydrilla treatment of only 1% (132 acres) of the reservoir outside of the ship channel. This maintenance program is not included in the Draft Environmental Impact Statement or the other volumes released on August 20 for public review, but is contained in a short CE document, "O&M Costs," dated August 5, 1976. 3) Adequate consideration is not given to the Oklawaha River Basin as an environmental and economic asset of the State of Florida.

A graphic example of this obvious bias toward Preserve shows up clearly in the definitions of the non-construct alternatives.
Definitions:

Preserve: Most Effective and practicable plan to make maximum use of completed project works including navigation, recreation, flood control, and other environmental objectives.

Restore: This plan would remove all project works with certain exceptions and restore the Canal area to preproject conditions insofar as practicable.

Abandon: Complete Federal disinvolvement after placing the project in a non-operational but safe condition.[4]

Note that Restore and Abandon are defined in descriptions of of what would be done while Preserve is an editorial comment only!

All things considered, it appears that a combination of Abandon, Preserve, and Restore alternatives for different reaches would be the best solution. Further study by the State is needed before such an important decision can be made intelligently.

IV. FAILURE TO FOLLOW STATE AND JUDICIAL DIRECTIVES

A. Introduction

The CE has been directed by a Federal District Court, by the State of Florida, by the Congress of the United States, at cost of millions of dollars from the U.S. Treasury, via the American taxpayer, to produce a credible economic analysis for this project. But even after all of this direction, the CE has published economic reports which fail to provide even the most basic information and assumptions necessary for critical review by the government, let alone the public.

B. State of Florida Position

Florida has taken a very strong and direct position with respect to the economic analysis required for the CFBC project. In 1972 the Cabinet resolved to:

> ". . . suspend any further support for the construction of the Cross Florida Barge Canal until such time as: 1) A new cost-benefit ratio study, which includes up-to-date interest rates and construction costs and re-evaluation of recreational benefits, is completed and demonstrates to the satisfaction of the State that this is a wise expenditure of Taxpayer funds. . . ."[5]

But the state has even more specific requirements for an appropriate level of interest rates. On February 20, 1973 the state Cabinet voted to approve the formula for determining interest rates recommended by the National Water Commission (which produces 6 1/8 % in 1976) and further stated:

> "However, it may be realistic to consider an environmental risk factor in calculating the discount rate on some projects; the Cross-Florida Barge Canal, for example. In such cases, the discount rate may increase substantially, thus affecting the benefit to cost ratio of the project."[6]

We emphasize here that even at only 6 1/8 % the benefit-cost ratio estimated by the CE is .66, which makes the Canal project clearly unacceptable for public funding.

C. Failure to Quantify Environmental Risks as Suggested by the State of Florida

While the CE still maintains that environmental costs cannot be quantified, the State has required that the CE acknowledge the existance of environmental risk, and has indeed provided the CE with a tool for satisfying this requirement. For example, a classic case of environmental risk is the potential effects on the Floridan Aquifer in the Summit Reach of the project. By including an additional % in the discount rate, a contingency allowance can be made for such environmental costs as pollution of the Aquifer, which would require new sources or treated sources for municipal and domestic water supplies, or the effect on an establishment such as Silver Springs in their water quality (i.e. cloudy water, for instance). Other dramatic examples of "environmental risk" associated with the hydrology of the Cross-Florida Barge Canal project are described in our comments on the Environmental Impacts of the Cross-Florida Barge Canal.

We believe that contrary to the "legal" interest rate of 2 7/8% used by the CE, realistic interest rates would be in the range of 5% to 7%, and that 3% to 5% is realistic to account for environmental risk. Therefore, we suggest that a reasonable range of interest rates which satisfy the State of Florida requirements for "up-to-date" interest rate and for an allowance for "environmental risk" would be 8% to 12%.

The CE's refusal to release the necessary data and assumptions makes it impossible to present detailed benefit/cost comparisons for this project. Even so, it is obvious that the true benefit/cost ration would be below .50, even without including many of the absolutely certain environmental costs.

The State of Florida should evaluate the Cross-Florida Barge Canal project by its own clearly stated criteria.

D. Bypassing of Judicial Order

Federal Judge Harvey Johnson defined an adequate environmental and economic assessment in the following quote:

> "Among other things, I am not able to see how such an EIS properly could escape having a current cost/benefit evaluation made of the whole project, with this, of course, necessarily including a proper quantification in over-all aspect of the various environmental pluses and minuses that are involved. To view the situation otherwise, it seems to me, would not comport with the full disclosure intent of NEPA either as a matter of entitling public judgement to be informedly made or of enabling Congress to engage in responsible and balancing legislative determination on whether the Canal as such should be continued, modified, or wholly terminated."[7]

The CE defines its responsibility for an economic assessment as follows:

> "The objective of the economic study is to determine the effects of the alternate plans on the National economic development objective."[8]

V. CORPS ECONOMIC RESTUDY

The most important overall observation concerning the entire benefit-cost analysis presented by the CE concerns the marginal values of the benefit-cost ratio. At 2 7/8%, considering only costs and benefits to be realized by completing construction of the CFBC, the CE estimates a B-C ratio of only 1.26. When the entire project is considered, as the court ordered, the B-C ratio is only 1.02. The significance of this marginal economic evaluation of the CFBC by the CE is as follows: If even a small error has been made in underestimating the value of the listed future costs for the CFBC — and we believe there are unlisted costs which should be included — then marginal economic feasibility even at 2 7/8% would be lost. (B-C ratio less than 1.0)

Additionally if even a small error has been made in overestimating the value of future benefits for the CFBC — and we believe there are significant errors in the benefit estimates — then the marginal economic feasibility even at 2 7/8% would be lost (again, B-C ratio less than 1.0). Given the small room for error, the combination of underestimating costs and overestimating benefits raises serious questions concerning the economic validity of the CFBC project, even when it is evaluated at the "legal" interest rate of 2 7/8%.

A. Transportation Benefits Overestimated

The transportation benefits claimed for the CFBC by the CE are summarized in Table 7a on page 17 of the Economics Restudy. The claimed average annual

benefit of $13.9 million, at 2 7/8%, contains two components which we seriously questioned at a meeting with the CE on June 24, 1976. These categories are for the induced benefit of $4.3 million and for the transloading facility of $5.78 million. Together, these benefits account for 73% of the entire transportation benefit claimed for the CFBC.

The induced benefit was calculated by the CE consultant, A.T.Kearney & Co. to be $862,500 per year. (Economics Restudy Report, U.S. Army Corps of Engineers, August, 1976, p.13). This benefit was determined by the product of $0.375 times 2.3 million tons. The CE however, arbitrarily changed this value to $4,299,850 per year. (Determined by the product of $1.8695 times $2.3 million tons.) This difference of $3,437,350, an increase of 400% per year, is explained by the CE as follows:

> "The change in the method of computation is a result of a change, on the part of the Corps of Engineers, in the interpretation of the relevant regulations and policy guidelines." (Economics Restudy Report, U.S. Army Corps of Engineers, August, 1976, p.13)

If the original Kearney estimate is accurate, then the adjustment discussed above reduces the B-C ratio even at the "legal" interest rate of 2 7/8% to 0.75. ($13,9 - 3.4 ÷ 14.1)

In addition, the CE has included a benefit of $5.78 million per year for a transloading facility, but has not included the economic costs necessary to generate this benefit estimate. For example, we would like to know how much, if any, State money was committed to back up the following statement:

> "Assurances have been received from the Canal Authority that the terminal facilities would be provided." (Draft EIS, p. 8, paragraph 1.14)

The most disturbing element of this benefit estimate is the CE statement that:

> "The benefit increases from the transloading facility and the GIWW overlap significanly." (Economics Restudy, p. 16) Note: GIWW refers to the Gulf Interstate Waterway.

The GIWW has not even been approved , yet it is supposed to contribute benefits to the CFBC project!

We have continually made our point clear to the CE that a proper benefit-cost analysis should include all relevant benefit AND cost estimates, and in

particular, cost estiamtes for benefits included in the benefit-cost analysis.

Fianlly, the CE has several problems in attempting to show the sensitivity of their benefit-cost analysis at alternative interest rates. First, reference is directed to Table 11 on page 22 of the Economics Restudy Report. The correct title of the table should read: "Present worth and average annual transportation summary." We do not understand why all benefit and costs were not included in this table. In any event, while the CE reported present worth of the transportation benefits, they failed to note the significance of presenting present worth values to show the sensitivity of interest rate adjustments. For example, changing the interest rate from 2 7/8% to 6 1/8% is an increase of 113%. Present worth adjustments show a 90% decrease in the value of the benefit. However, the CE average annual adjustment for this same interest rate increase only indicates an 11% decline in the value of the benefit.

We continue to emphasize that the CE is presenting misleading economic relationships by using the average annual benefit and cost estimates instead of present worth values.

To further demonstrate the trouble of only using average annual benefit estimates is the CE error in presenting "recalculation adjustment." (See Table 7a, page 17.) An increase in the interest rate should lead to a decrease in the value of the benefit. However, the CE has the value increasing by 31% (at 2 7/8%; $-1.41, and at 6 1/8%; $-0.98). It should be obvious to even a casual ovserver that the entire presentation of the sensitivity of the recalculation adjustment is in error as well as inconsistent. The same comments also apply for the category of "not barge adjustable commodity."

Finally we do not understand how the "50% probability value" is insensitive to changes in the interest rate. (See Table 7a, p. 17, $3.93 at 2 7/8%, 6 1/8% and 6 7/8%). We would assume that these commodities were originally included in the overall Kearney navigation estimate, and would therefore be at least as sensitive to interest rate changes as other Kearney transportation estimates.

B. Recreation Benefits Overestimated

The second largest category of benefit is for Recreation. It is estimated to be $3,082,000 per year. We have prepared a comprehensive statement on the recreational benefits claimed for the CFBC. (See the attached.) In addition to the comments found in the attachment relative to the identifiable resources and facilities needed to generate these benefits, we question the basic need for additional flat water impoundments. The State's position on this issue is clear:

" (1) That reservoirs often represent drastic modifications to natural systems and may result in certain undesirable ecological changes; and

(2) That Florida is blessed with a vast number of natural lakes,

we see no need for an acceleration of new, long-term, open water reservoir programs in this state." (State of Florida Comments to the National Water Commission, February 20, 1973)

We concur with the State of Florida position.

The other two minor categories of benefits claimed by the CE are for flood control and fish and wildlife. Without raising any particular issue as to the estimation of the benefits, we do not understand why both are completely insensitive to changes in interest rates. This is misleading at best and is but another example of why all categories of benefits and costs should be presented at present values.

Finally, it seems inappropriate to present entire categories of benefits, such as for coal, oil, and even war risk insurance when the CE evidently has no intention of including such speculative benefits for economic justification. (U.S. Army Corps of Engineers, Economics Restudy Report, August, 1976, pp. 14-16.)

Earlier in this report we indicated that economic justification at even the "legal" interest rate of 2 7/8% was dependent on no errors in any of the future benefit estimate. We believe that there are serious questions concerning CE treatment of the benefit estimates. We are, however, not able to be more precise at this point because we do not have the basic data and assumptions contained in the Confidential Appendices.

C. Costs Underestimated

The CE presented capital cost estimates, along with maintainance cost estimates in a form which is impossible to determine their adequacy relative to the benefits claimed. For example, is the amount allocated for weed control adequate with reference to the benefits claimed? At this point, we don't know.

Another problem which we consider very serious is the CE failure to include any estimates for environmental costs. This is particularly disturbing because the CE consultant provided adequate basis for a realistic assessment of the environment costs certain to be incurred by the construction of the Canal. By simply taking the values provided in the North Report (Citation) for Reaches 2 and 3 the average annual cost at 2 7/8% is equal to $7.5 million. (Note: This is equal in present value terms to $200 million over the life of the project.) The effect on the B-C analysis of only considering these known environmental costs, along

with all CE benefit estimates without considering sunk costs is to reduce the B-C ratio to 0.81. (Note: $17.4 + $14. + $7.5)

We believe that an adequate representation of all costs will show discount costs greater than discounted benefits, at the "legal" interest rate of 2 7/8%.

VI. SUMMARY AND RECOMMENDATIONS

FDE economists have confirmed long stated positions concerning the economic validity of the CFBC. On the basis of the data made public by the CE, we recommend that:

(1) The Oklawaha River be restored as a productive asset for all people of Florida and the nation, and

(2) That the CFBC be deauthorized.

SOURCES CITED

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2. Florida Defenders of the Environment. Series of letters to Jacksonville District Corps of Engineers requesting Confidential Appendices C-K, dated: June 2, June 8, July 18, August 10. (1976)

3. North, Ronald (Univ. of Georgia). Highest and Best-Use Study. Prepared for U.S. Army Corps of Engineers, funded by E.P.A., No. 12 on COE List of Restudy Reports Released. (FREE)

4. U.S. Army Corps of Engineers, Cross-Florida Barge Canal Restudy Report/ Engineering, August, 1976, p. 118.

5. State of Florida Resolution, August 1, 1972.

6. Comments adopted by the Florida Cabinet on the Report of the National Water Commission, February 19, 1973.

7. Opinion and Judgement, Harvey M. Johnson, Senior Circuit Judge of the Eighth Circuit, sitting by designation. Filed, February 4, 1974, Jacksonville, Florida.

8. U.S. Army Corps of Engineers. Cross-Florida Barge Canal Restudy Report/ Economics, August 1976, p.2.

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August 30,1976

COMMENTS ON THE RECREATION BENEFITS CLAIMED FOR THE CFBC PROJECT

FLORIDA DEFENDERS OF THE ENVIRONMENT

John H. Kaufmann

A. Assumptions used to generate alleged benefits

1. Statements casting doubt on assumptions:

"The quality of the recreation resources of the project route under the existing condition or the conditions which would exist under all alternatives is nominal for the part of Florida in which the project is situated. However, two kinds of recreation environment, that characteristic of the natural Oklawaha River and that of the gulf coast have higher quality because the supply is limited in relation to the demand at their location for the recreation activities they are capable of supporting; that is, primitive river opportunity on the Oklawaha and beach activities on the gulf. Resources which would exist under all alternatives have potential but varying capacity for recreation development and use. Available data indicates that there is at present a surfeit of water surface which could be made accessible for recreation in the project region and that this condition would prevail through the project period." (Environmental Study Report, U.S. Army Corps of Engineers, August 1976, page 56)

"Most of the recreation resources related to the project under all alternatives are substantially nominal in quality in the context of the State and are of no more remarkable quality than most similar undeveloped land or water resources elsewhere. The condition of limited total available supply, however, coupled with the environmentally fragile quality of certain resources, renders occurrence rare and valuable. Of the resources included in the project route portions of Lake Ocklawaha and Eureka Reaches can be considered in this category." (Ibid.), page 85

"However, the issue of recreation alternatives may be a moot point since the BOR report assumes that sufficient lake type recreation is currently available in the region of Florida through which the canal would pass." (Economics Restudy Report, U.S. Army Corps of Engineers, August 1976, p. B-1)

2. If the principal kinds of recreation to be provided by canal completion are not needed in this region (there is no net demand for them above present resources), how can there be net benefits provided by completion? All impoundment-associated "benefits" are simply transfers from other waters in the region.

3. Completion of the canal would cause loss of a scarce and valuable resource. This loss should appear in the cost of the project, as part of the environmental costs (all of which were omitted).

4. Note that the construct alternatives yield an increase of only $ .927 million of annual benefits over the preserve alternative. In other words, not one cent of new canal construction money would be needed to obtain 76% of the recreation benefits claimed for completion of the canal. The only additional cost would be a modest amount for additional recreation facilities. Other non-construct alternatives would produce even higher recreation benefits.

B. Apparent errors and omissions in the recreation benefits presentation for all build alternatives (nos. 1-9).

1. West End Reach (Reach 6)

(a) Use of the proposed transloading facility would drastically reduce recreation benefits in this area, according to the BOR. By how much, and why was this reduction not made in the benefits claimed?

(b) How can the COE claim in excess of 1.5 million dollars average annual recreation benefits for six miles of canal ditch? (Economics Restudy Report, U.S. Army Corps of Engineers, Table 14, p. 28, 1976). What facilities and resources generate this "benefit"? Were recreation benefits claimed for the offshore spoil islands? If so, why was a recreation benefit of zero assigned to both the restore and abandon alternatives (alternatives #11 and #12) which retain the spoil islands? We suspect that the benefits claimed for the build and preserve alternatives are based largely on swimming beaches on the spoil islands. If this is true, then these benefits were inexplicably ommitted from the restore and abandon alternatives. If inclusion of a substantial part of these benefits should in fact be added to alternative No. 4 in Table 25 (p. 40, Economic Restudy Report, U.S. Army Corps of Engineers, 1976); then its benefit/cost ratio would rise sharply, perhaps making it the most attractive alternative given in the table (if Table 25 can be believed at all). The best mix of alternatives may well be absent from the limited and arbitrary selection in Table 25.

B. Apparent errors and omissions (continued)

2. Summit Reach (Reach 4).

The attached table summarizes the available information on the present and proposed facilities and recreation benefits claimed for Reaches 2 (Rodman), 3 (Eureka) and 4 (Summit). The Summit Reach would be a long narrow water-filled ditch, with its water surface 30 to 60 feet below ground level along much of its length. How can it produce much more than Reaches 2 and 3 in benefits with much less in resources and facilities?

(The facilities data were compiled with difficulty from the BOR Recreation Restudy Report. In order to properly evaluate the COE's benefit claims we badly need, for each of the 20 categories of Recreation Activity, a table showing the number of facility/resource units to be expected, in each separate reach, under each of the 12 alternatives in order to achieve the number of recreation days on which the Corps based its recreation benefits. No such table was included in the BOR report and none of the COE-produced reports had any such information).

3. Eureka Reach (Reach 3)

Notice in the table (attached) and in the Economics Restudy Report (Table 14, page 28) that the project is claimed to provide exactly the same recreational benefits for the various reaches in all of the nine build alternatives. But alternative 1 (authorized) includes in Reach 3 an impoundment of about 20,000 acres with associated water-based recreation, while the other eight build options (especially those upland alignments) replace this impoundment with an excavated ditch or a smaller impoundment. The upland alignments especially would not seem to provide the opportunities for pleasure boating, etc. which are claimed for alternative 1. How can the "benefits" be exactly the same?

4. Rodman, Eureka, and Lake Rousseau (Reaches 2, 3, 5)

The BOR Recreation Restudy Report (page 5-10) states, "Without control of of aquatic vegetation; and this should not be construed to mean elimination of all aquatic vegetation, through the project period no recreation benefits can be claimed for Alternatives 1-9 and Alternative 10."

The Corps has announced that it plans to control aquatic weeds on only 1% of Rodman Pool outside the barge channel (Cross Florida Barge Canal Restudy O&M Costs, August 5, 1976). This amounts to 1.5 acres for swimming, and 131 acres of small boat channels. Similar tiny areas would be cleared of weeds in the Eureka Pool and Lake Rousseau. The COE claims this will allow retention of the total recreation benefits originally computed for the entire pool. Will a few holes where weeds have been poisoned attract as many people as an open lake with no weed problem?

5. The COE assumes capacity use of all recreation facilities. This unrealistic assumption results in inflated benefits. A variety of situations can and will prevent capacity use. The Environmental Restudy Report (page 86, para 168) mentions some of them: "The analysis of resources available under an alternative do not fully reflect possible impediments to optimum utilization of recreational use such as aquatic vegetation, floating debris, effects of barge traffic, competing uses of the resources, influences, administrative sanctions or conflicts arising from use of resources for more than one recreation activity." Droughts and pollution from spills would also have serious impacts on recreational use.

6. The BOR assigned the same rates of participation in recreation activities to auto and airplane tourists after 1990. Instead of using weighted means of the various rates for tourists coming by each mode, they always used the higher of the two rates. This results in an inflated recreation demand, and consequently inflated benefits.

7. The fishing benefits (which are given separately from recreation benefits) assume no decrease in fishing effort for the life of the project, despite predictions in the Environmental Restudy Report that the impoundment fisheries will decline after the first few years (e.g. page 87f: Eureka. Good sport fishery for about 5 years.")

C. Questions relevant to an eventual choice between the many non-construct alternatives

1. In comparing the many possible no-go alternatives there is wide disagreement (for example between Table 3, page 22, of the Summary, and table S-4, page B-5 of the Economic Restudy Report) on potential recreation benefits. Dr. North's "highest and best use" study indicates that much greater recreation benefits are possible for some of the restore alternatives than for the preserve alternative. The whole question of potential benefits and costs for the various no-go alternatives needs much more careful study before a wise choice can be made. Very likely a solution combining restore, abandon and preserve choices for different reaches will be the best. We would strongly recommend a careful and extensive review by state agency experts before the State takes a position on the best mix of choices by reach for the no-go alternatives. The Draft Environmental Impact Statement is much too inadequate and confusing to be used as the basis for a position.

2. The issue raised in paragraph B.1.b. of this statement with respect to recreation benefits in Reach 6 is also pertinent here. Reach 5 is also involved, because Lake Rousseau would remain under the restore and abandon alternatives. Both Lake Rousseau and the Gulf resources could continue to generate recreational benefits under ALL alternatives.

3. Why did the BOR divide "user occasions" by 3 1/2 to obtain user days for wild river recreation, and by 2 for all other kinds of recreation? This appears to discriminate against the restore option and in favor of artificial impoundments.

COMPARISON OF FACILITIES AND BENEFITS CLAIMED FOR REACHES 2, 3, AND 4 FOR ALL BUILD ALTERNATIVES (nos. 1-9)

	Reach 2 (Rodman)		Reach 3 (Eureka)		Reach 4 (Summit)	
Aver. Ann. Benefits claimed	$315,000		$541,800		$642,600	
Facilities	Present	Planned	Present	Planned	Present	Planned
Swimming beach		1000 frontage ft.	0	500	0	0
Picnic	15 tables	30	0	22	0	11
Nature trails	10 miles	.7	50	7.6	0	9.4
Hiking trails	0 miles	1.2	0	2.8	0	1.5
Bike trails	0 miles	.8	0	0	0	0
Horse trails	0 miles	1.5	0	2.8	0	0
Campsites	18	58	0	0	0	0
Boat ramps	19 lanes		7		0	0
Pleasure boating		up to 13,000 acres of lake		up to 20,000 acres of lake	Canal ditch only	

The Corps assumes that all facilities will be used to capacity

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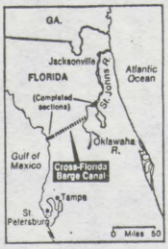

A MESSAGE TO CONGRESS

CROSS FLORIDA BARGE CANAL IS REJECTED BY THE STATE OF FLORIDA AND THE CORPS OF ENGINEERS. GOVERNOR AND CABINET JOIN STATE AND FEDERAL AGENCIES, CONSERVATION ORGANIZATIONS AND CITIZENS IN CALLING FOR DE-AUTHORIZATION OF THE PROJECT BY CONGRESS AND FOR RESTORATION OF THE OKLAWAHA RIVER VALLEY.

On December 17, 1976, at the conclusion of a two-day public hearing, the Governor and Cabinet of the State of Florida voted 6-1 to request that the U.S. Congress de-authorize the Cross Florida Barge Canal project. The resolution also called for the establishment of a State-Federal Task Force to study and recommend the best use of the canal lands, with special emphasis on "Restoration of the Oklawaha River, its designation as a wild and scenic river, and its inclusion in the Ocala National Forest."

This historic action was based on the recommendations of the State agencies concerned (Department of Natural Resources, Game and Fresh Water Fish Commission, Department of Environmental Regulation, Division of State Planning). It also reflected the vigorous opposition of the many citizen groups* and individuals who came from all over Florida to testify at the public hearing. Policy makers at the federal level have made the same recommendations. The Washington Policy Group (WPG), consisting of the Department of Agriculture and the Department of the Interior, the Environmental Protection Agency, and the Council on Environmental Quality, was formed by the Corps of Engineers to advise it on the future of the canal and its lands and waters. The WPG also recommended that the canal project be de-authorized, that the Oklawaha River be restored to a free-flowing condition and designated a Study River under the National Wild and Scenic Rivers Act, and that the Oklawaha River Valley be acquired and managed by the U.S. Forest Service as part of the adjoining Ocala National Forest.

On February 21, 1977, the Corps of Engineers released its final Environmental Impact Statement, and on February 24, Lieutenant General J. W. Morris, Chief of Engineers, recommended that the "Cross-Florida Barge Canal project be terminated" because of its "marginal" economic justification combined with its "adverse environmental impacts."

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*Among them were: The Florida Audubon Society, The Florida Wildlife Federation, Florida Defenders of the Environment, Florida Group of the Sierra Club, Florida Division of The Izaak Walton League of America, Florida League of Women Voters, Florida Federation of Garden Clubs, Florida Division of American Institute of Architects, and the United Auto Workers of Florida.

THE CASE AGAINST THE CANAL

Florida Defenders of the Environment (FDE), a group which has led the statewide battle against the canal, is a volunteer coalition of professional scientists, economists and lawyers who have dug out the facts about the canal project over the past seven years. The data are extensive, but we have summarized them below. Our opposition to the canal is based upon these facts, and we feel it is essential that members of Congress become familiar with them in advance of impending Congressional debate on the matter.

Construction on the CFBC project was begun in 1964, and then halted in 1971 by a federal court order and by an executive order from President Nixon. Both the court and the President cited the great harm which the canal would do to Florida's environment. In 1974, Federal Judge Harvey Johnsen ruled that only Congress can permanently halt the canal, and he ordered that an up-to-date economic evaluation and an Environmental Impact Statement (EIS) be prepared. This restudy effort, which took two years and cost $2.5 million, was conducted by Federal and State agencies and private consulting firms under the leadership of the Corps. A Draft EIS was released in August, 1976. The final EIS was released February 21, 1977.

ECONOMICS

CANAL A BAD INVESTMENT AT CURRENT DISCOUNT RATES REQUIRED BY THE FEDERAL COURT AND RECOMMENDED BY THE STATE OF FLORIDA. AT DISCOUNT RATES OF 6% - 7%, THE CANAL WOULD RETURN AT MOST 50¢ - 70¢ ON THE DOLLAR.

Basically the canal is a bad investment.

Judge Johnsen required that the new Economic Restudy, which he ordered, must contain a "current cost/benefit evaluation." By any such evaluation it is plain that the canal would cost far more than it would produce in benefits. It is only by using unrealistically low discount rates, and by adding spurious "benefits" while ignoring substantial costs, that the canal is claimed to show a benefit/cost ratio approaching or exceeding 1. In 1976, the discount rate for new Corps projects was 6 3/8%. The Water Resources Council has recommended 6 7/8% as a more realistic rate. At discount rates of 6% - 7%, the canal project would return only 50¢ - 70¢ on the dollar.

The only way the Corps can arrive at a benefit/cost ratio of 1 is to use the discount rate of 2 7/8%, which was the prevailing rate in 1942 when the canal was authorized. Even at the unrealistic, obsolete rate of 2 7/8%, the canal barely breaks even in the Corps' benefit/cost evaluation. Any increase in the costs or decrease in the benefits claimed for the canal would result in a benefit/cost ratio of less than 1.

COMPLIANCE WITH JUDGE'S ORDER FOR INCLUSION OF ENVIRONMENTAL COSTS MAKES CANAL A BAD INVESTMENT AT ANY INTEREST RATE. CORPS CONTINUES TO VALUE OKLAWAHA RIVER ECOSYSTEM AT $0.00. CORPS ALSO IGNORES THREAT TO AQUIFER IN SPITE OF STATE RECOMMENDATION FOR SUBSTANTIAL INCREASE IN INTEREST RATE FOR ENVIRONMENTAL RISK.

The Corps continues to defy Judge Johnsen's Order by omitting a major category of costs: the cost of the environmental damages, such as the destruction of a wild river, salt water intrusion at the west end of the canal, and the threat of fresh water pollution in the Summit Reach. Judge Johnsen's Order required that such costs be included in the benefit/cost evaluation. The State of Florida has suggested increasing the interest rate by an additional substantial amount to cover environmental risk, such as the threat to the region's fresh water supply. Other kinds of environmental costs are more than a risk. The destruction of a river valley forest and the loss of its associated recreational, esthetic and wildlife values are documented by the Corps' own restudy report, and these costs should be added directly to other costs in the benefit/cost analysis. The Corps, however, claims that it has no guidelines for quantifying environmental costs, so in effect it assigns them a value of $0.00 in its benefit/cost evaluation. Dr. Ronald North, one of the contractors for the restudy effort and a Corps consultant on other projects, has provided a method for quantifying environmental costs which is based on some of the same procedures used by the Corps to estimate the recreation benefits it claims for the canal. Using Dr. North's methods and data, we have calculated an average annual cost of over $7.5 million for environmental damages in the Oklawaha River Basin alone. Inclusion of even a fraction of these costs, in compliance with Judge Johnsen's Order, would show the canal to be a heavy economic loser even at the 2 7/8% interest rate.

Other substantial costs which the Corps has grossly understated in its economic analysis include 1) the cost of water weed control in canal impoundments to obtain the recreational benefits claimed by the Corps, (estimated by Department of the Interior experts to be $1 to $2 million annually more than budgeted by the Corps), and 2) the long-term value of the timber that would be lost when impoundments replace forests (estimated by the U.S. Forest Service to be $27 to $61 million more than budgeted by the Corps for the various completion alternatives). It should also be noted that in recent years the actual cost of all Corps waterways projects has averaged 80% more than the cost used by the Corps to justify the projects.

BENEFITS CLAIMED FOR CANAL ARE GROSSLY INFLATED

The Corps has repeatedly claimed economic benefits for the canal which cannot be justified. For example, $5 million in annual benefits were claimed for a transloading facility to serve two shippers, who, it turns out, would not use the canal. Forced to delete this "benefit",the Corps next claimed $5 million in annual savings on shipping costs for coal to be used by the Jacksonville Electric Authority. This "benefit" was relegated to a footnote when transportation experts showed that it was wholly imaginary. If and when the JEA ever does begin using an unknown amount of coal, it could probably obtain it more cheaply by deep water ship or by rail.

Even the transportation benefits which the Corps still claims for the canal are questioned by professional economists. Not only are the comparative rates used to compute the savings highly suspect, but the savings claimed represent gross savings to shippers, not net benefits to the economy. The resulting losses to competing modes of transportation, such as the railroads, were ignored.

Although the canal was proposed as a transportation project, even the inflated shipping benefits do not come close to producing a benefit/cost ratio of 1. So the Corps has claimed massive recreation benefits to make up the difference--"recreation" now accounts for 24% of the total benefits claimed. Some of these "benefits" are highly questionable, such as the $642,000 of annual benefits claimed for one section of canal ditch where the only recreational facilities planned are 11 picnic tables and 11 miles of trails. It should also be noted that, according to the Corps' own figures, 76% of the claimed recreation benefits can be realized without building the canal! And finally, any recreation benefits that might be realized represent transfers from other local waters, not net increases in the area's recreational resources.

CANAL WILL NOT PROVIDE A SIGNIFICANT BOOST TO LOCAL ECONOMY. CORPS REPORTS NO NEW INDUSTRIES OR OTHER FORMS OF ECONOMIC ACTIVITY WOULD BE ATTRACTED TO THE CANAL AREA. MORE JOBS WOULD RESULT FROM RESTORING OKLAWAHA RIVER VALLEY AND DEVELOPING FOR TOURISM.

While aware that the canal is a losing investment for the American taxpayers, some people in the immediate canal area are still understandably concerned about the canal's possible effects on their local economies. For years they were promised by canal backers that completion of the canal would bring an economic boom. Now it is clear that this was a false promise. The new reports reveal that canal completion would have little overall effect on the area's economy--there would be little if any induced industrial development, and relatively few new jobs created. The Corps' reports mention 15,000 possible jobs by the year 2030. But the Corps' reports also state that their projections are upper limits, and are well within the margin of error for such long range forecasts. In other words, these new jobs, over a period of 50 years, are not definite--they are possibilities. Of course, even a possible job sounds good to someone who needs one. But the Corps report (prepared by Dr. Ronald North) on alternative uses of the Oklawaha River Basin suggests that many more new jobs can be created in the canal area by restoring the valley to its pre-canal condition and developing it for tourism. Tourism is Florida's leading industry, and compared to canal construction and operation, produces many more jobs for the amount of money invested. The canal lands can produce a significant boost for the local economy, but only by restoring the canal-scarred lands and making use of their potential for attracting tourists.

THE ENVIRONMENT

The evidence of potential environmental damage is so overwhelming that even the Corps was finally forced to face up to it. General Morris said on February 24 that the environmental impacts were decisive in his recommending termination of the project.

EFFECT ON REGIONAL WATER SUPPLY

Probably the one environmental issue of greatest concern to all Floridians is the quality and quantity of their water supply. Construction and operation of the canal would have adverse effects on both the quality and quantity of water available from the aquifer in the canal region. Unfortunately these adverse impacts have not been adequately addressed in the EIS.

POLLUTION THREAT TO THE AQUIFER CONFIRMED BY U.S. GEOLOGICAL SURVEY AND OTHER EXPERTS. HIGH LEVELS OF COLIFORM BACTERIA AND POISONOUS CHEMICALS FROM SPILLS COULD PASS DIRECTLY INTO THE UNDERGROUND WATER SUPPLY.

The canal would be cut down into the aquifer--the layer of porous and fragmented limestone which provides the region's supply of fresh water. The canal is designed so that the barges must float in aquifer water; thus, there would be continuous exchanges of water between the canal and the rest of the aquifer. Pollutants, especially water soluble ones, introduced into the canal waters could pass freely into the aquifer, especially where large solution channels or caves are encountered.

The two main sources of dangerous aquifer pollution would be from toxic substances spilled from barges, and from surface water polluted with high levels of coliform bacteria. In addition, canal construction could cause turbidity in the groundwaters which could cloud water in wells and natural springs such as world-famous Silver Springs.

The threat of serious contamination of the aquifer has been confirmed by the U.S. Geological Survey (in a letter to FDE on August 27, 1976), and by several independent experts in hydrology in their testimony at the public hearings held by the Corps and by the State of Florida. All of these experts have had extensive professional experience with construction projects affecting the aquifer; one of them, Licensed Geologist Garald L. Parker, originally described and named the Floridan Aquifer.

CANAL WOULD COMPETE FOR WATER WITH DOMESTIC, INDUSTRIAL, AND AGRICULTURAL USERS. AS REGIONAL WATER DEMANDS INCREASE, AQUIFER COULD NOT PROVIDE FOR PEOPLE'S NEEDS AND STILL FLOAT BARGES.

Contrary to claims by canal proponents that the canal project would be a water conservation project, the EIS reveals the opposite would be true. The canal would pre-empt, during times of water shortage and drought, water needed for drinking, for agriculture, for industry and for fish and wildlife. Dr. I. Garcia-Bengochea pointed out in his testimony at the State hearing that the canal's daily fresh water consumptive use would be more than double the total municipal daily consumptive use for all of Florida in 1970.

The canal reservoirs are not designed to store water. The water level in the impoundments cannot be fluctuated sufficiently to provide large amounts of water for other uses and still operate the canal. Furthermore, compared to aquifer water, impoundment waters would be of poor quality as a result of, among other things, high coliform bacteria counts. Therefore, future regional demands for water must be met by pumping water from the aquifer, not the impoundments. A large enough demand could lower the level of the aquifer water on which the barges in the Summit Reach must actually float. If the water level drops just 1 to 2 feet below that for which the canal is designed, only barges with wheels could navigate the Summit Reach. And current demands have lowered the ground water level by up to 60 feet in other areas of Florida that are already looking toward the canal area for their water.

What could cause such a heavy demand for water? Soon heavily populated areas of Florida in the vicinity of Jacksonville, Orlando, and Tampa may compete with the canal and with each other for aquifer water. These areas are expanding rapidly in population, and some are already experiencing water shortages and looking for new sources. Their increasing demands might be met by importing aquifer water from the canal region. In that case, continued use of the canal would only be possible by denying water for drinking and for industry to these heavily populated areas.

CANAL COMPLETION WOULD HAVE SERIOUS ADVERSE IMPACTS ON WILDLIFE AND FISHERIES.

The contractors' reports on which the EIS is based show clearly that completion of the canal would have serious overall effects on the region's wildlife and fisheries. Most of the benefits to wildlife which would come from canal completion would be minor, temporary, and chiefly to common species, compared to the harmful effects, which would generally be of major importance, permanent, and which would affect more Endangered and Threatened species. The new studies also expose as a myth the idea that canal impoundments would provide valuable new fisheries. The reports point out that, partly because of the explosive growth of water weeds such as hydrilla, fisheries in canal impoundments have already declined and will continue to decline. In the long run, canal impoundment fisheries are less productive than those of the free-flowing rivers which they replace.

CANAL COMPLETION WOULD SUBSTITUTE A SURPLUS, POOR QUALITY RESOURCE FOR A SCARCE AND VALUABLE ONE.

Canal construction would further degrade the Oklawaha regional ecosystem, already badly damaged by the construction of Rodman Reservoir. The EIS points out that peninsular Florida has a surplus of flat-water lakes, while unspoiled free-flowing rivers and their associated wildlife and recreational opportunities are scarce and fast disappearing. Furthermore, according to the Corps' reports and the State's own recreational survey, the recreation offered by impoundments is of only nominal quality, while that offered by the river valley is of much higher quality. Thus, from an environmental viewpoint, the only sensible course is to begin active restoration of the Oklawaha River Valley.

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RECOMMENDED CONGRESSIONAL LEGISLATION

DE-AUTHORIZATION OF THE CROSS FLORIDA BARGE CANAL PROJECT

The Governor and the Cabinet of the State of Florida have joined with private citizens and conservation organizations and with the United States Departments of Agriculture, and of the Interior, the Environmental Protection Agency, and the Council on Environmental Quality in calling for de-authorization of the Cross Florida Barge Canal project. This recommendation is based on overwhelming evidence that the canal would be a bad economic investment, and that it would cause massive damage to the environment.

DESIGNATION OF THE OKLAWAHA RIVER AS A NATIONAL WILD AND SCENIC RIVER

Especially hard-hit by canal construction and operation would be the Oklawaha River Valley--a beautiful sub-tropical river and flood-plain forest that forms the northern and western boundaries of the Ocala National Forest. Sixteen miles of this valley, with its unique natural assemblage of plants and animals, have already been drowned beneath Rodman Reservoir. Fortunately the damage is not irreversible. Once Rodman Dam is removed and the river returned to its original channel, the area can be reforested and restored to a condition that would qualify it for inclusion in the National Wild and Scenic Rivers System. A plan to do just that, and to include the Oklawaha Valley in the Ocala National Forest, was drawn up by the U.S. Forest Service in 1973. An impact statement was prepared, and generally favorable reaction received at public hearings on the plan. Implementation of this plan would be relatively easy and inexpensive. And, as has been pointed out, restoring the Oklawaha River Valley, and developing it for tourism and recreation, could bring a bigger economic boost to the region than would completion of the canal.

Conservationists throughout Florida have joined with the Governor and Cabinet and members of the federal agencies in the Washington Policy Group, in asking the U.S. Congress to pass legislation leading to the restoration of the Oklawaha River Valley, and to its inclusion as a Study River under the National Wild and Scenic Rivers System.

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COMMENTS ON ENVIRONMENTAL CONCERNS ASSOCIATED WITH THE CROSS FLORIDA BARGE CANAL

Prepared for State agencies briefing by Dr. John H. Kaufmann and Dr. David S. Anthony, Florida Defenders of the Environment, Sept., 1976

For more than seven years, the specialists affiliated with Florida Defenders of the Environment have maintained that the Cross Florida Barge Canal 1) is economically indefensible and 2) would cause severe environmental damage. Despite gross distortions, unwarranted assumptions, and obvious bias, the Draft EIS and associated volumes issued on August 20, 1976, resoundingly confirm both of the seven-year-old contentions. In the following analysis we will summarize the principal environmental values affected by the canal project, showing to what degree the published documents reflect the actual situation.

I. Principal Concerns
   - A. Impacts on water supply
   - B. Impacts on Oklawaha Valley Ecosystem

II. Biological Impacts
   - A. Aquatic weeds
   - B. Fisheries
   - C. Terrestrial Vegetation
   - D. Wildlife

III. Quantification of Environmental Costs

IV. Environmental Impacts of Transloading Facility and Barge Port

V. Choosing Non-construct Alternatives

VI. Summary

I. Principal Concerns

The most important environmental impacts of the CFBC project are: 1) the potential created for severe adverse impacts on the regional water supply, and 2) the destruction of the Oklawaha River Basin as an integrated ecosystem, with severe and permanent impacts on its riverine and terrestrial plant and animal communities.

A. Impacts on Water Supply

The canal project's threat to the region's water supply is two-fold: degradation and depletion of the surface waters in the weed-plagued impoundments, and potential pollution of the aquifer. The water quality has already suffered in the nutrient traps formed by canal impoundments, with resulting severe water weed problems, periodic low O_2 levels, and coliform bacteria counts in excess of legal maximums (which the Draft EIS, p. 21, chooses to call "recommended limits"). The hydrologic budget presented by Meta Systems Inc. shows clearly that in periods of drought there would be insufficient water both to operate the canal and to maintain acceptable flows in the rivers. If only historic low flows were to be maintained in the rivers during drought conditions, there would not be enough water to operate the canal usefully. If historic low flows are not maintained, there will be additional adverse impacts on the already stressed wildlife and fisheries. Nowhere is this aspect of the hydrologic budget discussed.

The potentially harmful pollution of the Floridan Aquifer is acknowledged several times, and the likely effects of toxic pollution of the impoundments are also suggested in the Draft EIS (pp. 37-39). But these serious environmental risks are generally minimized and dismissed with bland assurances that spills will be quickly cleared up or passed on to the impoundments. Such optimism is not supported by the critiques submitted by Dr. Martin Mifflin and Mr. Gerald Parker to the U. S. Geological Survey. In their reply to these critiques (letter to Marjorie H. Carr, Aug. 27, 1976) the USGS, while vigorously denying any intentional bias in their reports, nevertheless reconfirms that potential exists for contamination of the aquifer by a variety of mechanisms. They state that:

1) The USGS did not intend to downplay potential impacts, nor to imply that the pollution question is of little importance.

2) Relatively serious long-term water quality problems are expected in several reaches of the canal.

3) The USGS stated that its discussion of possible coliform bacteria pollution of the aquifer: "was too brief and may have left the unintended impression that the potential for bacterial pollution may be of little consequence. This is a shortcoming."

4) There may be more danger from canal construction to Silver, Rainbow, and Gum Springs than is currently believed.

5) The outflow from Summit Reach to the aquifer could not be completely blocked without lining the entire 28 miles.

6) Large solution channels could be encountered in parts of the Summit Reach which it may not be practicable to plug, block off, or line.

The published hydrologic budgets make it clear that, far from providing water conservation benefits, the canal project ties up ground and surface water making it unavailable for other uses. During droughts the canal would actually compete for water needed for drinking, industry, agriculture, and wildlife.

B. Impacts on Oklawaha Valley Ecosystem

The Oklawaha River Basin is a unique sub-tropical ecosystem showing unusual diversity in its plants and animals. Its aesthetic, recreational, sporting and scientific values are enhanced by the scarcity of other unspoiled wild rivers in Florida and indeed the nation. The Oklawaha Valley has already been severely impacted by the creation of Rodman Reservoir; the completion of any of the various Construct alternatives would bring similar destruction in varying degrees to the remaining half of the valley above the Eureka Dam.

The published reports contain several excellent paragraphs summarizing the value of the Oklawaha Valley ecosystem, and the destructive impacts of the Preserve and all Construct alternatives (Environmental restudy report, pp. 60-61, para 105-106). There is also one good paragraph on the inadequacy of acreage changes to measure the real impact on wildlife species (Draft EIS, p. 35, para 4.21). Nonetheless, acreage changes are used throughout the Draft EIS to indicate relative impacts, thereby minimizing the adverse impacts of habitat destruction.

The Draft EIS and its accompanying volumes present a muted and fragmented view of this devastation. The contractors' reports on which the Draft EIS was supposedly based present a more complete picture, one that differs sharply in some respects from the more innocuous sounding statements released to the public on August 20, 1976.

II. Biological Impacts

A. Aquatic Weeds

In 1970, before the first sprig of Hydrilla ever appeared in Rodman Reservoir, FDE stated:

> "AQUATIC PLANTS HAVE GROWN AND WILL CONTINUE TO GROW TO PEST PROPORTIONS IN THE IMPOUNDMENTS ON THE OKLAWAHA RIVER. WITHOUT CONTROL, THE IMPOUNDMENTS WILL HAVE "WALL TO WALL" WATER HYACINTHS. CHEMICAL CONTROL OF WATER HYACINTHS WILL MAKE CONDITIONS IDEAL FOR DEVELOPMENT OF HYDRILLA, BELIEVED TO BE THE MOST DIFFICULT OF ALL AQUATIC PLANTS TO EFFECTIVELY CONTROL. IT WOULD CHOKE OFF RECREATIONAL USE, AND WOULD INTERFERE WITH NAVIGATION IN THE PROJECT, AND WOULD GREATLY ACCELERATE THE FILLING OF THE POOLS WITH ORGANIC DEBRIS. IF EXPENSIVE CHEMICAL CONTROL OF HYDRILLA WERE SUCCESSFUL, ALGAE WOULD GROW IN FANTASTIC ABUNDANCE, DESTROYING THE SPORTS FISHERY AND FOULING THE WATER AND AIR WITH NOXIOUS TASTES AND ODORS."

(Environmental Impact of the Cross-Florida Barge Canal, With Special Emphasis on the Oklawaha Regional Ecosystem. Florida Defenders of the Environment: Abstract, p. 81)

Subsequent events have proved the virtually complete accuracy of these predictions. Thousands of acres of water hyacinths developed, choking the reservoir. Spraying with herbicides for control of the hyacinths produced conditions ideal for hydrilla, and now thousands of acres of this aquatic weed flourish in the reservoir, drastically reducing any recreational values that might be claimed.

The Draft EIS admits that, "aquatic plants will pose a persistent problem to all non-navigation uses of reservoir waters" (p. 32).

Several of the contractors reports emphasize this view even to the point of stating that unless feasible aquatic plant control methods are identified, no recreational benefits can be claimed for any Construct alternative or the Preserve alternative (Recreation and Related Aspects, Bureau of Recreation, Findings). Yet the Corps claims over $3.8 million of average annual recreation benefits in the six project reaches (Economics restudy report, p. 28).

How does the Corps propose to accomplish this, and at what cost? The Draft EIS (pp. 33-34, para 4.16-4.18) makes it clear that there is at present no effective, economically feasible control program available for hydrilla. Yet paragraph 4.18 also states that a control program for the canal has been developed "consistent with navigation and recreation objectives." No figures are included for acres to be cleared, costs per acre, or frequency of treatment needed. Yet the Summary (p. 13) states that such a plan "has been developed and the attendant costs included in development of cost benefit-cost ratios." We eventually discovered that the Corps proposes to poison aquatic weeds for fishing and recreational purposes in less than 0.8% of the total reservoir areas outside the barge channel. This information is contained in a Corps memo, O&M Costs, dated August 5, 1976. It is not even listed in the "Lists of Reports" in the Draft EIS. Of course, the costs assigned for this tiny area of weed control were correspondingly miniscule.

B. Fisheries

Contrary to repeated attempts by canal backers to portray canal waters as a fisherman's paradise, the fisheries contractor's report is one of the most consistent in its condemnation of the canal project. The strongly negative impact of converting free flowing rivers to shallow, weed-choked impoundments with declining fisheries cannot be hidden even by the Corps' repeated attempts to inflate fisheries benefits. And we assume that no one will attach much significance to the Corps' claim of creating new fisheries habitat in the Summit Reach and other ditches which would be busy with barges if the navigation benefits can be believed. (See Environmental restudy report, pp. 77-79, for a discussion of ship-induced turbulence, maintenance dredging, and pollution.)

The Draft EIS (p. 24) points out that Rodman Pool has the lowest catch rate among canal waters. It also mentions that the tailrace fishery is good, but one has to go back to the Fisheries restudy report, vol. III, p. 67, to learn that the tailrace fishery is expected to decline as Rodman Pool itself continues to decline. The Draft EIS (p. 48) also points out that the Eureka Pool, if

constructed, would have good fishing for only five years. But the idea that the canal would provide a valuable new fishery resource was exposed as a myth in the Environmental restudy report (pp. 65-67). Unfortunately, the authors of the impact summaries in the Draft EIS and Summary don't seem to have paid very close attention.

C. Terrestrial Vegetation

There is little to say here--not even the Corps attempts to deny the permanent and complete loss of thousands of acres of terrestrial vegetation by flooding under all Construct alternatives. Only the Restore and Abandon alternatives would have any beneficial effect on terrestrial vegetation. Much of the affected area is, or was, covered with valuable timber--all of it providing aesthetic enjoyment and habitat for terrestrial wildlife.

D. Wildlife

The sections covering impacts on wildlife contain some of the most blatant examples of Corps bias toward building or preserving reservoirs. One ploy is to devote more space and more detailed descriptions to alleged wildlife benefits than to adverse impacts from Canal construction. Frequently omitted from such descriptions is the pertinent information that the "benefits" are often temporary, questionable (or even hotly disputed), applicable to very small areas, and/or to common, ubiquitous species; while the glossed-over adverse impacts are more likely to be severe, permanent, and/or pertain to species of special concern.

Representative examples can be found in the Draft EIS (p. 48, St. Johns, Wildlife), and in the Summary (pp. 13-14). The latter reference summarizes the impacts of canal completion. It tries hard to obscure the findings of the wildlife contractors (available in their own restudy reports) that canal completion would have severe net adverse impact on wildlife. Only four sentences are devoted to adverse impacts on wildlife, with only nine species or other taxa named; while "beneficial" impacts occupied seven sentences and 21 taxa were named. But as usual, most of the benefits listed would be temporary or cancelled out by more important adverse impacts not mentioned, while the adverse impacts would all be permanent (eight of the nine taxa named would be eliminated from the drowned areas). Similarly, some of the wildlife values said to be "lost" under the Restore or Abandon alternatives would only be temporary anyway under the Construct or Preserve Alternatives.

The discussion of Endangered and Threatened species states that, "Generally, the freshwater associated species would be benefitted by reservoir construction and the dry habitat species would be damaged by reservoir construction" (Summary, p. 15). This is blatantly misleading. Only one of the seven freshwater associated species (the alligator) would unquestionably benefit to a major extent from reservoir construction. Major benefits to two others are temporary: ospreys and wood storks gain feeding habitat of declining quality, while the stork loses potential nesting habitat. Eagles gain non-critical feeding habitat of declining quality, but lose critical nesting habitat. The others clearly lose. Sandhill cranes inhabit marshes and small ponds in upland areas and could only lose habitat to reservoirs or canal ditches. The Suwannee cooter would gain more from restoring the river than from building more reservoirs, and the manatee would unarguably be adversely impacted by barge and boat traffic. On the other hand, 10 upland species would suffer major permanent loss of habitat. Only two would be little, if any, affected by the proposed canal construction.

As explained in the Environmental restudy report (pp. 60-64), all Construct alternatives have major adverse impacts on many species of wildlife, including Endangered and Threatened species. No Construct alternative has more than minor or temporary benefit to wildlife, compared to the Non-construct alternatives. Among the Non-construct alternatives, Restore and Abandon, in that order, are superior to Preserve in the Oklawaha River Valley, and just as good in Reaches 5 and 6 since Lake Rousseau and the Gulf spoil islands would remain in any case.

III. Quantification of Environmental Costs

Nowhere in any of the reports does the Corps attempt to quantify environmental values, as ordered by Judge Johnsen. By omitting this category completely from their benefit-cost analysis, the Corps is actually assigning them a value of $0.00. This alone invalidates the economic analysis.

One of the Corps' contractors, Dr. Ronald North, includes in his report on "The Highest and Best Uses of the Oklawaha River Basin and Lake Rousseau" one means of quantifying the environmental costs of the project. The Corps has made no use of this technique, but we computed an annual environmental cost of over $7.5 million by adding up the plusses and minuses in environmental values presented by Dr. North only in Reaches 2 and 3. These represent sure and certain losses due to the replacement of a terrestrial ecosystem with impoundments, and should be added directly to the costs of the project.

An added amount must be included to account for potential losses, for example, the very real threat of aquifer pollution. Since the amount of these potential loss costs cannot be predicted, the best way to include them in the benefit-cost analysis is to add onto the discount rate a percent sufficient to cover this environmental risk. In fact, the State of Florida has already endorsed this procedure and we concur.

IV. Environmental Impacts of Transloading Facility and Barge Port

Since these facilities were omitted from the Scenarios presented to the environmental contractors, their environmental impact has not been assessed--an absolute requirement if benefits are to be claimed for them. (The transloading facility accounts for about 40% of the navigation benefits claimed for the entire project.)

Note that these two facilities would be located in two of the most ecologically sensitive areas along the canal route: the Gulf of Mexico (fisheries, manatees) and the as yet unspoiled Oklawaha River valley near Silver Springs. As these facilities were not adequately described to the environmentally contractors, much less studied by them, it is no surprise that the discussion of their impact (Draft EIS, p. 41) is completely inadequate.

V. Choosing Non-construct Alternatives

The contractors' reports and tables 5 and 6 in the Draft EIS show that all of the Construct alternatives are unacceptable from the standpoint of their effects on the region's plant and animal communities, to say nothing of the threat to the water supply. All that remains, from an environmental viewpoint, is to choose the best mix of Non-construct alternatives.

Table 6 (Draft EIS) shows a consensus in favor of the Restore alternative when the project is considered as a whole. Elsewhere in the August 20th reports the Preserve alternative is made to look relatively more attractive than it really is by 1) arbitrarily rigging the economic analysis of Non-construct alternatives (see discussion in Dr. Paul Roberts' Comments on Economic Analysis of Cross-Florida Barge Canal) and 2) making numerous statements glossing over the adverse environmental impacts of impoundments, while simultaneously inflating their value. Adequate weight was not given to the aquatic weed problem in this connection, nor to the decline in impoundment fisheries over time. Table 6 in the Draft EIS does not fairly reflect the contractors' views

with respect to special species; the original contractors' reports indicate that the Preserve alternative comes in a poor third in desirability behind Restore and Abandon.

The Meta Systems rankings are seriously deficient in not considering the Non-construct alternatives reach by reach. Where the Corps has done this it has ignored, despite the proddings of its contractors, the most attractive combinations from both an economic and an environmental viewpoint.

Dr. North's "Highest and Best Use" study (Economics restudy report, p. B-2), which considered a wide range of uses for a restored Oklawaha River valley, ranked all Restore options higher than Abandon, Preserve, and all Construct alternatives. This report is a quantitative evaluation of 23 environmental and economic goals, and should receive much more careful attention than Meta Systems' simplistic rankings based on acreage changes only.

The Draft E.I.S. and its associated volumes issued on August 20th, 1976, are unacceptable, in our opinion, as a basis for choosing the best mix of Non-construct alternatives. We therefore recommend that the State of Florida conduct its own independent, thorough review and investigation of this subject before arriving at an official position on a proper mix of the Non-construct alternatives.

VI. Summary

To more clearly show the true environmental effects of canal completion, we have prepared the attached chart, based on Table 2 in the Draft E.I.S. Two conclusions seem inescapable: 1) There are NO major, long term net benefits to the nine environmental categories under the Construct alternatives. Overall, only five important positive effects were found, none of them critical, compared to 22 important adverse effects. Of the latter, the effects on ground and surface water quality, aquatic weeds, major impacts on many species of wildlife, and especially the loss of an integrated riverine ecosystem are deemed critical. 2) All Non-construct alternatives have a net positive effect on all nine categories, compared to all Construct alternatives.

The Draft E.I.S. and other reports released on August 20 list a host of serious adverse environmental impacts which would result from completion of the canal under any alternatives. Unfortunately, the reports do not adequately represent the true

magnitude of the problems which were identified by the contractors. In fact the farther one gets from the original contractors' reports (to Environmental restudy report to Draft E.I.S. to Summary), the more bland and obscure become the presentations of environmental impacts. This can hardly be an accident, especially since contractors repeatedly called these points to the Corps' attention. Furthermore, the reports completely ignore the required quantification of environmental costs, and give misleading presentations of the complex problem of choosing the best mix of Non-construct alternatives.

NET ENVIRONMENTAL IMPACTS OF ALL BUILD ALTERNATIVES

CATEGORIES	POSITIVE IMPACTS	NEUTRAL OR INSIGNIFICANT	NEGATIVE IMPACTS
Air Quality		Some increased emission	
Hydrologic Budget			Oklawaha faces water shortage in drought years - threat to fish, wildlife, boating
Water Quality		1. Groundwater level raised near pools (but internal use for water supply not possible if sufficient water is to be maintained in canal. Especially true during dry periods.)	1. Increased sedmentation, O_2 reduction during construction. 2. Chemical spills - pollution of aquifer and surface waters. ** 3. O_2 depletion in impoundments due to stratification, growth and decay of water weeds. 4. Coliform bacteria counts exceed legal maximums.(not mentioned)
			** Major Importance

NET ENVIRONMENTAL IMPACTS OF ALL BUILD ALTERNATIVES

CATEGORIES	POSITIVE IMPACTS	NEUTRAL OR INSIGNIFICANT	NEGATIVE IMPACTS
Water Nutrient Budget	1. Lockage releases and circulation of lower reservoir waters reducing plankton blooms	1. Reduce saline water lockage into Lake Rousseau - not significant now	1. Nutrient trap in impoundments - causes continuing problems with aquatic weeds, algae, etc. 2. Low O_2 in Lake Rousseau
Aquatic Vegetation		1. Water clarity aided by plants	1. Serious, continuing problem with hydrilla, hyacinths, in all canal impoundments. Detrimental effects on recreation, fish, wildlife. Less of a problem in upland routes, but still major **
Benthos and Plankton	1. New habitat in areas not yet flooded (Summit, Eureka). Upland routes poor in this respect		1. Total destruction in dredged areas, especially from maintainance dredging in channels. From temporary to permanent 2. Nutrient trap encourages plankton blooms - may deplete O_2
Fisheries	1. Creation of new reservoir fishery in Eureka reach - good for only 5 years. More man-hours than river	1. Fish habitat lost or created in St. Johns reach 2. Only minor damage from construction - if done carefully 3. New fish habitat of poor quality in Summit reach	1. Danger from toxic spills 2. Migration impeded 3. Loss of river fishery - river has higher catch/hour and higher yield/acre than reservoir 4. All reservoir fisheries decline-intensive management not possible under canal operating conditions 5. Fishes of special interest extirpated
	OVERALL EFFECT OF ALL "BUILD"	ALTERNATIVES IS BAD FOR FISHERIES.	

** Major Importance

NET ENVIRONMENTAL IMPACTS OF ALL BUILD ALTERNATIVES

CATEGORIES	POSITIVE IMPACTS	NEUTRAL OR INSIGNIFICANT	NEGATIVE IMPACTS
Terrestrial Vegetation			1. Major loss of valuable, scarce forest types - thousands of acres (More important - loss of valuable, integrated regional ecosystem - not mentioned)** 2. Loss of habitat for several species of E and T plants
Wildlife	1. Permanent gain in alligator habitat 2. Permanent gain in habitat of non-sensitive lake fauna	1. Temporary gain in small areas of desirable habitat for some non-sensitive species in St. Johns reach 2. Increase in eagle and osprey feeding habitat, but losses in nesting and decline in quality of feeding habitat with time (weeds, disturbance, etc.) 3. Temporary gain in flooded-tree habitat for limpkin, red headed woodpecker, wood ducks, but all trees will eventually die and fall 4. Potential threat to sea birs and turtles at west end - can be minimized if care taken in blasting, dredging, etc.	1. Major permanent loss of swamp fauna in St. Johns reach. Some sensitive species affected 2. Reduction of manatees in St. Johns, hazards to manatee in Rodman and West End reaches ** 3. Loss of invertebrates from caves and springs 4. Major impact on many species of terrestrial wildlife, including adverse effects on panther, bear, deer, turkeys, etc. ** 5. Disjunction of surviving terrestrial communities and impediment to annual movements **

OVERALL EFFECT OF ALL "BUILD" ALTERNATIVES IS DISASTROUS FOR TERRESTRIAL WILDLIFE, OF SOME VALUE AND SOME HARM TO WATER-ASSOCIATED SPECIES.

** Major Importance

FLORIDA DEFENDERS OF THE ENVIRONMENT, INC.
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March, 1977

SOLUTION CHANNELS AND POLLUTION OF THE FLORIDAN AQUIFER

There is a major disagreement over the threat of aquifer pollution in the Summit Reach of the Cross Florida Barge Canal. On one side are the Corps' engineers, none of whom are hydrologists or have apparently dug a canal through an aquifer like the Floridan Aquifer. Opposing them are independent professional hydrologists with many years of experience on construction projects in this part of Florida. The Floridan Aquifer is a water-filled underground layer of fragmented limestone, pierced horizontally and vertically by countless small and large solution channels -- some forming immense caverns. Twenty-eight miles of the canal would cut down into this limestone, and there would be free interchange between canal waters and the rest of the aquifer. Pollutants introduced into the canal waters could move quickly and with relatively little dilution, quite possibly to nearby springs and wells, wherever sizeable solution channels are encountered. The Corps tries to play down this danger by minimizing the liklihood of encountering such channels, and by proposing to fill them with cement where necessary. Professional hydrologists familiar with the Floridan Aquifer point out, however, that the channels are likely to be larger and far more abundant that the Corps expects, and that grouting them with cement, if indeed possible, would be prohibitively expensive.

One of the professional hydrologists opposing construction of the canal is Garald G. Parker, Sr., whose career includes 30 years with the U.S. Geological Survey. Mr. Parker is currently President of the Florida Section of the Association of Professional Geological Scientists. He is also the man who in 1946 first described and named the Floridan Aquifer. In his testimony before the Governor and Cabinet on December 17, 1976, Mr. Parker said, "I deplore the proposed construction of the Cross Florida Barge Canal in the unfinished Summit Reach because I believe that it's going to be a disaster for the area, chiefly caused by expected pollution of the regional ground-water supply in the Floridan Aquifer."

Also testifying against the canal for the same reasons was Dr. J. I.Garcia-Bengochea, Senior Vice President and Director of Engineering with the consulting engineering firm of Black, Crow, and Eidsness. Dr. Garcia-Bengochea showed a series of slides, which we have reproduced here, illustrating the frequency and size of the solution channels typical of the Floridan Aquifer. We trust that these photos will have the same shocking impact on you that they had on the Governor and members of the Cabinet.

(The following photos and captions were supplied by Dr. Garcia-Bengochea.)

WE ARE GOING TO SHOW YOU 12 PHOTOGRAPHS WHICH GIVE AN IDEA OF THE UNDERGROUND WITHIN 50 FEET OF THE EARTH'S SURFACE IN THE NORTH CENTRAL PART OF THE PENINSULA OF FLORIDA. THIS UNDERGROUND IS PART OF THE OCALA GROUP, A LIMESTONE FORMATION WITH INNUMERABLE CAVITIES AND SOLUTION HOLES WHICH WHEN UNDER THE WATER TABLE CONSTITUTE THE FLORIDAN AQUIFER, ONE OF THE RICHEST AQUIFERS OR WATER-BEARING FORMATIONS IN THE WORLD. THE GROUNDWATER IN THIS AREA IS FRESH, CRYSTAL CLEAR, OF EXCELLENT QUALITY AND THE MAIN SOURCE OF POTABLE WATER SUPPLY IN THE AREA.

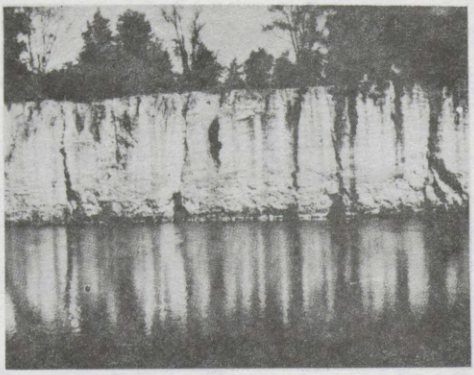
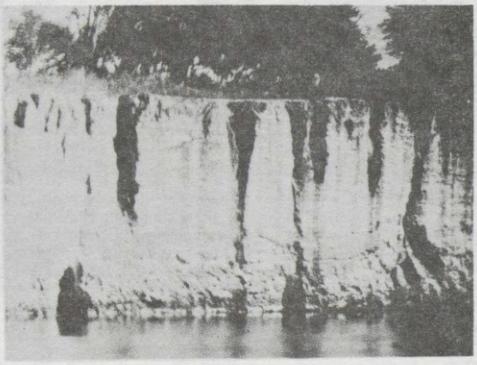


PHOTO 1 SHOWS A CUT IN A QUARRY NEAR NEWBERRY, APPROXIMATELY 40 MILES NORTHWEST OF OCALA. MANY VERTICAL SOLUTION CHANNELS LEAD TO THE WATER TABLE AT AND BELOW WHICH MANY HORIZONTAL SOLUTION CHANNELS INTERCONNECT THEM.



2.

PHOTO 2 IS A CLOSER DETAIL OF THE CUT SHOWN IN PHOTO 1. LARGE HOLES AT WATER LEVEL ARE HORIZONTAL SOLUTION CHANNELS.

32-863 O - 7 - 17

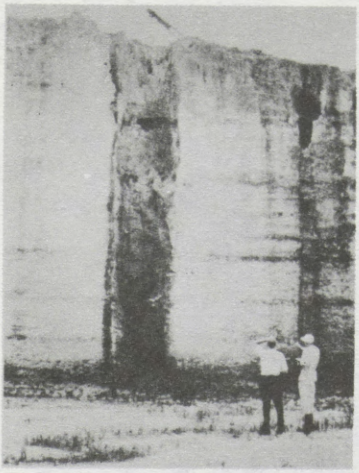


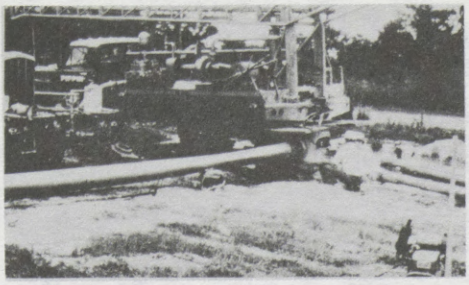




PHOTO 3 IS ANOTHER CUT IN AN ADJACENT QUARRY. THE SIZE OF THE CAVITIES CAN BE COMPARED WITH THE TWO MEN IN THE FOREGROUND AND THE BOOM OF THE CRANE IN THE BACKGROUND.

PHOTO 4 SHOWS A CUT OF A HORIZONTAL SOLUTION CHANNEL NOT DIRECTLY INTERCONNECTED WITH THE SURFACE OF THE GROUND. AGAIN, ITS SIZE CAN BE COMPARED WITH THE VEGETATION IN THE BACKGROUND

PHOTO 5 SHOWS THE OUTCROP OF A NUMBER OF VERTICAL SOLUTION CHANNELS ON TOP OF LIMESTONE IN A QUARRY AFTER THE TOP SOIL HAS BEEN REMOVED. ALL THESE FIRST 5 PHOTOGRAPHS WERE TAKEN NEAR NEWBERRY AND ARE TYPICAL OF THE OCALA GROUP, A LIMESTONE FORMATION OF NORTH CENTRAL FLORIDA THROUGH WHICH THE CANAL WOULD BE DUG.



6.

PHOTO 6 SHOWS THE PUMPING AND DRILLING EQUIPMENT READY TO START THE PUMPING TESTS IN ONE OF THE FIVE NEW WELLS DRILLED IN 1969 FOR THE CITY OF OCALA. THE FIVE WELLS WERE 24 INCHES IN DIAMETER AND LOCATED IN AN AREA OF APPROXIMATELY 30 ACRES. TEST DRILLING FOR THESE WELLS INDICATED GOOD PROSPECTS FOR WATER BUT NO SIGNIFICANT INFORMATION ON THE PRESENCE OF LARGE CAVITIES.



7.

PHOTO 7 SHOWS THE DISCHARGE OF THE TEST PUMP FLOODING THE AREA WHERE THE WELL FIELD WAS LOCATED. NATURAL GROUND SLOPE WAS TO CONVEY THAT WATER TO A NEARBY SINKHOLE.



8.



9.



10.

PHOTO 8 SHOWS THE COLLAPSE IN THE GROUND WITHIN THE FLOODED PART OF THE WELL FIELD AREA, SHORTLY AFTER PUMPING BEGAN.

PHOTOS 9, 10 AND 11 (SEE NEXT PAGE) SHOW THREE OF THE MORE THAN 30 SINKHOLES WHICH DEVELOPED WITHIN DAYS DURING THE ABOVE MENTIONED PUMPING TESTS.



11.



12.

PHOTO 12 SHOWS THE APPEARANCE OF ONE OF THE VERTICAL HOLES OR SOLUTION CHANNELS AT THE TOP OF THE GROUND WHEN VEGETATION IS REMOVED.

THE UNDERGROUND CONDITION SHOWN ABOVE IS TYPICAL OF THE AREA WHERE THE SUMMIT POOL AND WESTERN PART OF THE PROPOSED CROSS FLORIDA BARGE CANAL IS PLANNED. FREE INTERCHANGE OF WATER BETWEEN THE AQUIFER (WATER -BEARING FORMATION) AND THE CANAL WOULD OCCUR. LINING OF THE CANAL WOULD PREVENT SUCH FREE INTERCHANGE; HOWEVER, BECAUSE OF THE CAVERNOUS NATURE OF THE LIMESTONE FORMATION, HUGE AMOUNTS OF GROUTING MATERIAL WOULD BE NECESSARY.

June 14, 1978

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Attn: Marjorie Carr

Greetings:

The UAW Florida State CAP Council, representing both active and retired members in the state of Florida, have for years publically opposed the building of the Florida Cross Barge Canal for several reasons, some of those being the astronomical cost and the environmental damage to the area.

The UAW still feels very strongly opposed to the completion of the Canal and requests it be de-authorized; further, requesting that the property be restored to its natural state.

Yours truly,

Deloras Knight

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► MAJORIE H CARR
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THE FLORIDA WILDLIFE FEDERATION A 40,000 MEMBER ORGANIZATION IN FLORIDA STRONGLY SUPPORTS SB1592 DE AUTHORIZING THE CROSS FLORIDA BARGE CANAL, AND WITH THE AMENDMENTS EXTENDING THE BOUNDARIES OF THE OCALA NATIONAL FOREST AND EXTENDING THE EFFECTIVE DATE TO JULY 1, 1979. WE URGE YOU TO SUPPORT THIS IMPORTANT LEGISLATION AT HEARINGS ON JULY 26

FLORIDA WILDLIFE FEDERATION
JOHN C JONES
EXECUTIVE DIRECTOR

1109 EST

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5241 (R1/78)

TO REPLY BY MAILGRAM, SEE REVERSE SIDE FOR WESTERN UNION'S TOLL - FREE PHONE NUMBERS

FLORIDA DEFENDERS OF THE ENVIRONMENT, INC.
622 N. Main
Gainesville, Florida 32601

August 1, 1978

Senator Mike Gravel, Chairman
Water Resources Subcommittee
Senate Committee on Environment and Public Works
4204 Dirksen Senate Office Building
Washington, D. C. 20510

Dear Senator Gravel:

We are pleased to reply to your "questions for environmental interests" given us at the end of the Hearing on S 3337 on July 26. Please include this reply and the attached four appendices in the record of the Hearing.

We had not covered all of the points raised in your questions in detail in our testimony before the Hearing because some of them (Questions 2 and 3 b and c) refer to restoration of the canal lands which is not addressed in S 3337.

The questions and our answers follow:

Question 1. S. 3337 as introduced by Senator Chiles on Monday of this week essentially combines the provisions of S. 1592 and S. 1593, with the exception of authorization of a study of segments of the Oklawaha River as a potential addition to the Wild and Scenic Rivers System. Do you support this exclusion?

Answer: Yes, we support the exclusion at this time in order to obtain the speediest possible action on deauthorization. Our ultimate goal is the wise disposition and some restoration of the canal lands and the inclusion of that portion of the Oklawaha River from Dead River Swamp downstream to its confluence with the St. Johns River in the National Wild and Scenic River System. It should be emphasized that restoration of this section of the Oklawaha River Valley, and its designation as a Wild and Scenic River was recommended by the Governor and Cabinet of Florida following the two-day-long hearing before them in December 1976. The issues of restoration and disposition of all

the canal lands are complex, however, and will need to be considered carefully by Congress when subsequent enabling legislation is submitted. These issues have not been fully discussed by all concerned and some concerned parties have not made up their minds on all points. On the other hand, Senate Bill 3337 is simple and uncomplicated and has the full support of all parties except those very few who still favor canal construction.

Question 2. The Chief of Engineers has included in his selected noncompletion plan the preservation of Lake Ocklawaha. Do you think such preservation is preferable to restoration of that area to its original condition?

Answer: No, we do not think that preservation of Rodman Pool (Lake Ocklawaha) is preferable to restoration. We were surprised that the Corps of Engineers, in its Final Environmental Impact Statement (F.E.I.S., Feb. 1977), included preservation of Rodman Pool in its selected noncompletion plan. With the sole exception of the Corps, none of the members of the field level Interagency Coordinating Group[1] responsible for preparing the E.I.S., nor of the Washington Policy Group[2] responsible for overseeing the restudy effort, recommended preservation of Rodman Pool as part of the noncompletion plan. In addition, Dr. Ronald North's study of the "highest and Best Use of the Oklawaha River Valley" (done under a Corps contract as part of the restudy effort) clearly showed that restoration is environmentally and economically superior to preservation of Rodman Pool.

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[1] U. S. Dept. of the Interior, U. S. Dept. of Agriculture, Environmental Protection Agency, Fla. Dept. of Natural Resources, Fla. Game and Fresh Water Fish Commission, Fla. Dept. of Administration, and Fla. Canal Authority.

[2] Undersecretary of the Dept. of the Interior, Deputy Administrator of the E.P.A., Chairman of the C.E.Q., Associate Director for Natural Resources, Energy and Science of the O.M.B., and the Secretary of the Army.

All of the statewide conservation groups in Florida and other public interest groups (such as the League of Women Voters) have expressed a preference for "restore" over "preserve." In May, 1977, over 180 environmental scientists from colleges, universities, and governmental agencies throughout Florida signed a letter to President Carter (Appendix Q-1) urging restoration of the Oklawaha River Valley. In August, 1977, the Florida Chapter of the Wildlife Society (the organization of professional wildlife biologists and managers) adopted an "ecopolicy" (Appendix Q-2) favoring "restoration of that portion of the Oklawaha River ecosystem presently occupied by Lake Ocklawaha."

On March 10, 1978, the Corps released an addendum to the F.E.I.S. on the "Socio-economic and Water Supply Impacts of Draining Rodman Pool" (Appendix Q-3). This report stated that "At the outset it should be noted that Rodman Pool is a nine-year-old manmade body of water, and that draining Rodman Pool, from a socio-economic or water supply standpoint, would generally appear to do no more than return the affected area to the status quo ante." In effect, this supplementary report refuted many of the arguments made in the F.E.I.S. and subsequently by reservoir proponents for preserving Rodman.

The reasons for restoring the Oklawaha River Valley rather than preserving Rodman Pool can be summarized as follows:

1) Maintaining and managing the reservoir would be expensive, and, as pointed out in the F.E.I.S., even intensive management would only slow the inevitable long-term deterioration of the reservoir fishery.

2) In the long run, restoring the river valley would be much cheaper than maintaining the reservoir. After the initial cost of restoration (about

$5 to $6 million), the river and its associated forest will continue to improve at little or no cost to man. Within 20 to 30 years the restored forest will look much like the forest which was destroyed.

3) Rodman Pool wastes and degrades large quantities of water. It loses millions of gallons of water more per day through evapotranspiration than would the restored forest. Furthermore, the reservoir water is of much lower quality than the locally abundant aquifer water.

4) Rodman does not aid in aquifer recharge--it is in a zone of aquifer discharge.

5) Rodman has no flood control benefits. The natural flood plain --at no cost to man--does a better job of absorbing and gradually releasing flood waters, and, in addition, purifies the water by filtering it through leaf litter and soil. Dr. Edmisten, in listing the benefits of wetlands, failed to mention that the natural Oklawaha River floodplain is a wetland that accomplished the services he listed more effectively and more cheaply than would the canal impoundments which would replace the river valley.

6) Restoration of the river valley would be of far more benefit to wildlife, including more Endangered and Threatened species, than would preserving the reservoir.

7) North Central Florida has a surplus of flatwater lakes for fishing and other water-based recreation. On the other hand, there is a growing shortage--statewide and nationwide--of wild and scenic rivers. Canal proponents have asserted repeatedly that the Oklawaha has already been rejected as a potential National Wild and Scenic River. This past rejection was due to the

effects of canal construction, and the restoration plan described in General McGinnis's testimony was specifically designed to correct this damage and to qualify the Okalwaha for National Wild and Scenic River status from its mouth to Silver Run. Rodman Pool occupies 16 miles in the middle of this section of the river and the stretches of river above and below Rodman are too short by themselves to quality.

Preserving Rodman Pool would substitute a surplus, low quality resource (flatwater lake) for a scarce and valuable one (free-flowing river). More details can be obtained from "The Case for Restoring the Oklawaha River Valley" (Appendix Q-4).

Question 3. Could you provide for the record your estimate of the severity of the environmental impacts of:

a) the selected completion alternative;
b) termination of the project and operation and maintenance of the existing works; and
c) termination of the project and restoration to natural conditions.

Answer: The relative severity of the environmental impacts of the alternatives listed are as follows:

a) The selected completion alternative: This would have by far the most severe environmental impacts. The threat of pollution of the Floridan aquifer in the Summit Reach has been dealt with in detail in our written testimony of July 26th (see especially our Appendices 14 through 20), and in the testimony of Mr. Joseph Landers for the State of Florida.

Other serious environmental impacts would occur in the Oklawaha River Valley. The Oklawaha Valley has already been severely impacted, of

course, by the construction of Rodman Pool. Further environmental damage would occur above Rodman if the canal were completed. The reports of the contracting agencies which did the environmental studies for the Corps show clearly that even the "non-river" selected completion route would seriously degrade the Oklawaha River Valley ecosystem, with severe adverse impacts on the river, the forest, and the wildlife (including a number of Endangered and Threatened species). It was pointed out repeatedly in the Corps' public hearings that the F.E.I.S. did not adequately represent the Corps' own contractors' findings with regard to the adverse environmental impacts of canal completion. The F.E.I.S., however, did include the statement that completion of the canal by the recommended route would ". . . eliminate the Oklawaha River ecosystem as an entity."

The July 26 testimony from several canal proponents regarding the effect of canal construction and operation on Endangered species was misleading. For example, the Endangered Everglades Kite has not "been a frequent inhabitant of the lake in recent years." During the lake's nine-year existence, there has been one (1) unconfirmed sighting of this species. And a recent study of the bald eagle in North Central Florida by scientists at the University of Florida indicates that draining Rodman would have no significant effect on the species. Rodman Pool provides only a surplus, seasonal feeding area for eagles, and only one isolated eagle nest has been found there since the reservoir was built. Canal completion, on the other hand, would adversely impact two established eagle breeding areas, and would thus probably have a negative effect overall on this species.

Canal proponents in their testimony have conspicuously omitted any reference to the Endangered manatee. They have stated, however, that no Critical Habitat for any Endangered Species has been designated within the canal project area. This is not true. The entire St. Johns River has been designated as Critical Habitat for the manatee. About 14 miles of this river are within the current project area (from the junction of the canal with the St. Johns down the St. Johns to Palatka). And of course, barges using the canal would also use the 75 miles of the St. Johns between Palatka and the river's mouth, all of which is Critical Habitat for the manatee. Thus canal operations would directly affect about 99 miles of Critical Habitat in the St. Johns River. Already at least four manatees have died from crushing in the locks and other causes in the six-mile stretch of canal now in limited operation between the St. Johns River and Rodman Pool. Completion and normal operation of the canal would multiply this mortality many times--collisions with boats and barges are the chief cause of manatee mortality in Florida. Critical Habitat for the manatee has also been declared close to the west end of the canal. Canal operation would cause significant mortality in this area as well, as the canal would cut across the manatees' normal routes of movement.

Finally, canal proponents ignored the adverse environmental impacts of canal construction on ten Endangered or Threatened terrestrial species in the project area. The canal proponents' testimony on other issues, such as economics and the threat of aquifer pollution, is of similar quality, but we think we have adequately refuted these points in our earlier testimony.

A summary of the environmental impacts of canal completion is attached to Appendix 11 in our July 26th testimony.

b) Termination of project and maintenance of existing works: This option would eliminate the threat to the aquifer and would prevent further degradation of the Oklawaha River ecosystem above Rodman Pool. It would, however, perpetuate the destruction of the 16 miles of river valley now beneath Rodman Pool, with the associated adverse impacts on wildlife, recreation, and water supply (see our answers to Question No. 2 above). It would also perpetuate the current threat to manatees from boats and lock operations at both ends of the existing canal. The present threat to manatees, while important, is of course far less serious than would be the case if the canal were completed.

c) Termination of project and restoration: This is by far the most desirable alternative from an environmental standpoint. It would eliminate the threats to the aquifer, the manatee, and the Oklawaha River Valley above Rodman Pool. And it would correct the serious environmental effects caused by the construction of Rodman Pool itself, allowing the Oklawaha River from Silver Run to its junction with the St. Johns River to be considered for National Wild and Scenic River status (see our answer to Question No. 2 above).

Question 4. Should the Federal Government acquire and preserve existing canal lands for public use? What would be the environmental impacts, either beneficial or adverse, of such action?

Answer: Yes, the Federal Government should acquire and preserve some existing canal lands for public use. The canal lands in the Oklawaha

River Valley that border the Ocala National Forest would be a logical addition to the Forest. The present forest boundary extends to the river and includes one-half of the flood plain, or river valley. It would be much easier to manage and preserve the river valley if it were all included in the Ocala National Forest. There would be no point in having the Federal Government acquire other canal lands--the State of Florida can adequately protect them. We agree with the recommendation for land transfers to and from the Federal Government that are included in the restoration plan described in the testimony of General McGinnis before your Subcommittee Hearing on July 26, 1978.

Thank you for your interest and courtesy.

Sincerely,

Marjorie H. Carr

Marjorie H. Carr
President

MHC:lmb

John H. Kaufmann

John H. Kaufmann, Ph.D.
Chairman, Science Advisory Committee

Enclosures: Appendix Q-1, May 1977, letter to President Carter signed by 180 Florida environmental scientists.
Appendix Q-2, August 1977, statement of "ecopolicy" by Florida Wildlife Society.
Appendix Q-3, March 1978, addendum to F.E.I.S. "Socio-economic and Water Supply Impacts of Draining Rodman Pool" by the U.S. Corps of Engineers.
Appendix Q-4, February 1978, report "The Case for Restoring the Oklawaha River Valley" by John H. Kaufmann, Florida Defenders of the Environment.

FLORIDA DEFENDERS OF THE ENVIRONMENT, INC.
P. O. Box 12063
Gainesville, Florida 32604

May 20, 1977

President Jimmy Carter
The White House
Washington, D.C.

Dear President Carter:

For over a decade Florida biologists have been one of the most active groups in opposition to the environmental damage caused by the Cross Florida Barge Canal project. Ten years ago they vigorously protested the damming of the Oklawaha River and the proposed formation of two large shallow reservoirs in the heavily forested Oklawaha Valley. As you know, construction was halted on the barge canal, in 1971, after the closing of Rodman Dam and the formation of one reservoir, Rodman Pool.

Now, with your great help, it seems very likely that the canal project will be utterly terminated, and a joint state-federal study team will recommend the highest and best use of the canal right-of-way lands. One stretch of canal land--that in the Oklawaha River Valley--can easily be added to the Ocala National Forest. The Oklawaha River, once released from Rodman Dam, will quickly recover its natural ecological structure and rhythm. The Valley forest will probably take some 25 years to regain its former ecological stability.

The enclosed letter signed by over 160 Florida biologists recommends that the restored Oklawaha River Valley be designated a study river under the National Wild and Scenic Rivers Act and sets forth specific reasons for the recommendation.

We hope you will find the statement helpful.

Thank you for your vigorous defense of the American environment. Please let us know if we can assist you in any way. We are all delighted and encouraged with the progress you have made in these first few months of your administration.

Sincerely yours,

Marjorie H. Carr

Marjorie H. Carr
President

P.S. I should point out that not all the signators of the enclosed letter are members of Florida Defenders of the Environment.

M.H.C.

Appendix - G

May 20, 1977

The President
The White House
Washington, D.C.

Dear President Carter:

We, the undersigned biologists in Florida's scientific and educational community, recommend that immediate steps be taken to remove Rodman Dam and to restore the Oklawaha River Valley to pre-reservoir conditions. We also recommend that the restored river valley be designated as a Study River under the National Wild and Scenic Rivers Act. We take this action for the following reasons:

1. Natural river valleys with their associated flora and fauna are scarce and fast disappearing in our state and in the nation, while shallow lakes are abundant.

2. Many more endangered and threatened species of plants and animals would be benefited by restoring the riverine forest than by preserving the reservoir.

3. The aesthetic and recreational experiences offered by wild rivers are of higher quality than those offered by flat water impoundments.

4. The flood plain forest performs valuable services for man, such as water purification and storage, that are accomplished much less effectively and at a far greater cost in energy and dollars by man-made systems such as reservoirs.

5. Rodman Reservoir, even with costly intensive management, would still gradually decline in quality, with increasing eutrophication and aquatic weed problems, and a declining fishery. On the other hand, the flood plain forest, once initial steps have been taken, will continue to improve with little or no management by man.

6. Research on aquatic weeds such as hydrilla could be done more appropriately on some of the many natural weed-choked lakes in Florida.

7. Restoration of the river valley forest will provide unique opportunities for teaching experiences and long-term scientific research, not just on forest succession, but on the regeneration of a river valley ecosystem.

We urge you to do all in your power to repair a past mistake by restoring a valuable part of our natural environment. Thank you for your attention and your help.

President Jimmy Carter
May 20, 1977

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President Jimmy Carter
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President Jimmy Carter
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FLORIDA CHAPTER
OF
THE WILDLIFE SOCIETY
414 N. E. 21st Avenue
Ocala, Florida 32670

ECOPOLICY OF THE FLORIDA CHAPTER, THE WILDLIFE SOCIETY, INC.

The Cross Florida Barge Canal, authorized as a project of the U. S. Army Corps of Engineers (COE) in 1942, has been the subject of controversy relative to its potential environmental impact. An extensive $2.5 million restudy of the project, conducted between July 1974 and August 1976, constituted the basis for the subsequent COE Environmental Impact Statement (EIS). A review of the restudy reports and EIS by the Florida Chapter of THE WILDLIFE SOCIETY, which constitutes the professional body of wildlife scientists within the state, has identified that the construction of the Cross Florida Barge Canal would have several predicted adverse ecological impacts.

1. A reduction or adverse alteration of habitats for eleven wild vertebrate species classified as endangered or threatened by federal and/or state governments.

2. A potential contamination of the Floridan aquifer via water interchange between the aquifer and the Canal.

3. A degradation of the unique Oklawaha River ecosystem.

4. A potentially adverse disruption of the Gulf estuarine ecosystem where traversed by the Canal.

Therefore, the Florida Chapter of THE WILDLIFE SOCIETY

1. Opposes completion of the Cross Florida Barge Canal because of its predicted adverse ecological impacts.

2. Supports deauthorization of the Cross Florida Barge Canal.

3. Favors restoration of that portion of the Oklawaha River ecosystem presently occupied by Lake Ocklawaha.

4. Encourages a study of the Oklawaha River for potential addition to the National Wild and Scenic Rivers System.

Adopted unanimously by the Executive Board,
Florida Chapter, THE WILDLIFE SOCIETY

August 11, 1977

Nicholas R. Holler

Nicholas R. Holler, President

DEPARTMENT OF THE ARMY
JACKSONVILLE DISTRICT, CORPS OF ENGINEERS
P. O. BOX 4970
JACKSONVILLE, FLORIDA 32201

SAJEN-EE

10 March 1978

TO ADDRESSEES ON ATTACHED LIST

Gentlemen:

Attached for your information and retention is an addendum to the Cross Florida Barge Canal Restudy Report, Final Environmental Impact Statement which was filed with the Environmental Protection Agency on 2 March 1978. If you have any comments they should be submitted within 30 days after date of publication of Notice of Availability in the Federal Register.

Sincerely yours,

for JAMES L. GARLAND
Chief, Engineering Division

1 Incl
As Stated

ADDENDUM TO CROSS FLORIDA BARGE CANAL RESTUDY REPORT FEIS - FEBRUARY 1977

SOCIO-ECONOMIC AND WATER SUPPLY IMPACTS OF DRAINING RODMAN POOL

The Cross Florida Barge Canal Restudy Report Environmental Impact Statement (February, 1977) analyzed, as a non-completion alternative, the environmental and general socio-economic impacts of draining Rodman Pool and restoring that portion of the Oklawaha River. The Corps of Engineers has suggested that additional environmental and socio-economic studies might be needed to satisfy the National Environmental Policy Act (NEPA) prior to a recommendation for draining of Rodman Pool. Another aspect which has surfaced in Department of Army review of the restudy documents is the potential, if any, that the existing Rodman Pool might have as a source of municipal and industrial water supply.

Pursuant to Department of the Army request, the Corps has furnished additional information concerning the socio-economic and water supply issues, which are discussed below.

Rodman Pool is located in Putnam County, about twelve miles southwest of Palatka, a small city of about 9,300 persons. Palatka is, by far, the largest municipality in Putnam County, whose July, 1976, population was 43,660 persons. Some 2,000 persons are employed in retail sales and services in Putnam County, receiving $15 million annually in personal income from $98 million in sales. Overall, 14,880 persons are employed in Putnam County with $113 million annually in personal income. Rodman Pool lies 20 miles northeast of Ocala, a city of about 32,600 persons; 30 miles east of Gainesville, a city of about 70,200 persons; and 60 miles south of Jacksonville, a city of about 550,800 persons. Economic indices for Marion (Ocala), Alachua (Gainesville), and Duval (Jacksonville) counties, of course, are substantially greater than those for Putnam County.

At the outset, it should be noted that Rodman Pool is a nine-year-old man-made body of water, and that draining Rodman Pool, from a socio-economic or water supply standpoint, would generally appear to do no more than return the affected area to the status quo ante.

In early 1978, the Corps surveyed a majority of businesses located within a ten-mile radius of Rodman Pool which would appear to be most susceptible to any economic impacts from draining Rodman Pool (such as bait and tackle stores, boat dealers, campgrounds, and lodges). It should be noted that no such businesses are adjacent to Rodman Pool itself; the surveyed businesses are located on the St. John's River. Of nineteen businesses, three indicated they would experience no adverse impacts if Rodman Pool were drained, two indicated they would go out of business, and fourteen attributed some part of their business to Rodman Pool. The sixteen businesses estimated expenditures in the vicinity of Rodman Pool would be reduced by $1.57 million annually if Rodman Pool were drained. Data in the restudy report, however, indicate an annual net gain of 7,000 fishing and hunting users if Rodman Pool were drained (49,000 fishermen days lost, 56,000 hunting days gained).

Moreover, fishermen presently using Rodman Pool could utilize other water sources in the Rodman area. While general recreation (non-fishermen and hunters) would also be affected by draining the Pool, the restored river and nearby lakes and streams would provide opportunities with the possible result of little net change in the general area. Thus, the estimated $1.57 million annual loss in expenditures appears at best problematical.

Estimates of Corps salaries and materials purchased locally for the operation and maintenance of Rodman Pool are $180,000 annually. Draining Rodman Pool would eliminate this input to the local economy.

We recognize that local interests desiring to retain the Pool view the losses noted above as net losses and would argue that consideration of indirect losses would increase the total by a factor up to 3. Even were such losses certain, they would represent only about 5 percent of total retail sales ($98,000,000) in Putnam County.

There are two known commercial fishing operations in Rodman Pool. Their annual harvest of catfish is estimated at 104,000 pounds with a value of about $68,000. Draining Rodman Pool would cause relocation of these operations to other nearby lakes with minimal impact on the local area. The fishing operations employ only four full-time persons, an infinitesimal percentage of the almost 15,000 employees in Putnam County.

Rodman Pool provides a resource for migrating waterfowl as a stopover area in the St. John's River Valley Flyway. Duck hunting has become a popular use of Rodman Pool during the hunting season for Northeast Florida hunters, and, although no dollar value was determined, 3,832 hunters used the Pool in December 1977. The ducks, however, would relocate to other Northeast Florida waters and there is no evidence that the hunters could not or would not follow them. Moreover, as noted above, draining Rodman Pool would result in a net annual increase of 56,000 in hunting days.

If not drained, Rodman Pool could provide water supply storage if needed in the future. However, nearby communities, including Jacksonville, appear to have ample supplies (Floridian Aquifer) to meet their foreseeable needs. Also, most of the yield which could be obtained under existing conditions (about 287 mgd of a total 328 mgd with 25-year drought) would be available without Rodman Pool. While water quality in Rodman Pool is adequate to serve as a municipal water source, a significant build-up of nitrogen and phosphorus has been observed. Also, bacteria in water released are significantly higher than in the influent water. The loss of a small increment of yield of relatively inferior quality water would not be a significant local impact of draining Rodman Pool. More distant cities may eventually be looking for additional water sources but the Floridian Aquifer or nearer surface waters would likely be less expensive from treatment and conveyance standpoints.

In summary, a review of the socio-economic (individually and cumulatively) and water supply impacts of draining Rodman Pool indicates that those impacts would not be significant within the meaning of the National Environmental Policy Act. They do not require a modification or supplement to the Restudy Report Environmental Impact Statement, however, in the interests of good decision-making, they should be considered in the decision-making process.

FLORIDA DEFENDERS OF THE ENVIRONMENT, INC.
622 NORTH MAIN STREET, GAINESVILLE, FLORIDA 32601

THE CASE FOR RESTORING THE OKLAWAHA RIVER VALLEY

By
John H. Kaufmann, Ph.D.
Chairman, Science Advisory Committee
Florida Defenders of the Environment

INTRODUCTION

Opposition to construction of the Cross Florida Barge Canal originally came from people who objected to the destruction of the Oklawaha River Valley. Although canal construction has been halted, 16 miles of the Oklawaha River still lie submerged by the waters of Rodman Reservoir. We believe that the Barge Canal issue will not be satisfactorily resolved until this segment of the Oklawaha River Valley is restored, with Rodman Reservoir replaced by the, again, free-flowing river and its associated forest. However, well-meaning people have questioned the advisability of restoring the river valley. Misled by the false claims and misinformation that have appeared in the press, these people have expressed concern over the relative benefits and costs of restoration, as well as the possible importance of the reservoir to the region's water supply. In order to provide everyone with the documented scientific facts and accurate figures needed to make a sound decision, we have prepared the following summary of the economic and environmental impacts of draining Rodman Reservoir and restoring the river valley.

ECONOMIC IMPACTS

The methods and figures used in computing the benefits and costs which are discussed below are generally those used by the Corps of Engineers in preparing their February 1977 Final Economic Restudy Report on the Cross Florida Barge Canal. In a few cases specialists in the agencies who did particular studies under contract to the Corps of Engineers (COE) objected strenuously to the use the Corps made of their data. The areas of dispute are 1) the acreage of water weeds that must be cleared to obtain the fishing and recreation benefits claimed by the Corps, and 2) the number of years required before the restored river and forest would begin to provide fishing and recreation benefits. In these cases we have accepted the considered professional opinions of the specialists in aquatic weed control, fishing, forestry and recreation who conducted the studies, as explained on pages 2 and 4.

The average annual benefits and costs presented below are discounted, where appropriate, at 6 3/8% over a period of fifty years, and are rounded to the nearest $1,000. The reservoir, at its current level of 18 feet msl, has an area of 9,200 acres, and we have used this area in calculating reservoir costs and benefits.

All benefit-cost analyses of this sort, no matter how carefully made, are based to some extent on arbitrary assignments of value and predictions of future conditions. Such analyses are therefore subject to large margins of error. Furthermore, important--perhaps overriding--benefits and costs may not be readily quantifiable in dollars, and may therefore not appear in the analysis. This is the case with some of the environmental values of the Oklawaha Valley, for instance. We do not believe that decisions between options on any aspect of the Cross Florida Barge Canal (CFBC) should be based solely on readily identifiable dollar values in a benefit-cost analysis. It is clear, however, that the monetary benefits from restoring the river valley would far outweigh the costs.

February 10, 1978

Benefits of Draining Rodman Reservoir and Restoring the Free-Flowing Oklawaha River

1) Elimination of costs of aquatic weed control. Draining Rodman Reservoir would save the approximately $1,000,000 or more per year that would be required for aquatic weed control if the reservoir were maintained.

The restored free-flowing river would require little if any control of aquatic weeds. The Corps[1] claimed that $23,000 per year would be needed to control 500 acres of water hyacinths and 35 acres of hydrilla in the restored river.

These figures are astounding. The Corps claimed that only 168.5 acres of hydrilla and 467 acres of hyacinths would need to be controlled if Rodman were maintained at 13,190 acres. Yet they also claimed that 35 acres of hydrilla and 500 acres of hyacinths would need to be controlled on 400 acres of river channel. That amounts to 21% as much hydrilla control and 125% as much hyacinth control on 3% as much surface area. Neither hydrilla nor hyacinths, however, grow well in swift-flowing channels, and neither currently needs to be controlled on the free-flowing segments of the Oklawaha above and below the reservoir. Thus the total cost of controlling water weeds in the reservoir could be saved if Rodman were drained.

Because of its shallow contours and nutrient-rich waters, Rodman Reservoir would always have serious water weed problems. In order to obtain the fishing and recreation benefits claimed by the Corps, the recreation, fishery, and water weed experts of the U.S. Department of the Interior (DOI) and the Florida Game and Fresh Water Fish Commission (FGFWFC) agree that open water should be maintained on about 50% of the reservoir.[2]

To get 50% open water on the 9,200 acre pool, it was estimated that about 20% of the reservoir would have to be treated for hydrilla, and smaller areas for water hyacinths and water lettuce. A Corps water weed expert[3] stated in January, 1978, that the cost for treating one acre of hydrilla with copper-diquat would be $240 per treatment. He also stated that two or three treatments per year are required, and advised using three treatments to be on the safe side. Copper-diquat has not been approved by the Environmental Protection Agency for use in moving waters. If approval is eventually granted, the above treatment could be used. If not, no feasible chemical treatment is available for use in Rodman. The Corps[3] reports that mechanical removal costs $450 per acre per year, but this method can only be used on very small areas such as boat ramps and lanes. Water hyacinths can be controlled at a cost of $25 per acre per year, and water lettuce for $35 per acre per year. If copper-diquat is approved, the cost of treating 20% of the 9,200 acre pool would be $1,343,000 for three treatments per year, and $901,000 for two treatments.

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[1] CFBC Final Environmental Impact Statement, Feb. 1977, pp. B1, B-2.
[2] Ibid., p. C-21.
[3] Joseph C. Joyce, Aquatic Plant Control Branch, Jacksonville District, COE, personal communication, Jan. 1978.

	Acres	Cost/acre/yr		Annual Cost
Hydrilla	1,840	3 treatments	$720	$1,324,800
		2 treatments	480	883,200
Hyacinths	326		25	8,150
Lettuce	275		35	9,625
		Total cost for 9,200 acres		$1,342,575 (3 treatments)
				900,975 (2 treatments)

This estimate is based on weed conditions at the time the restudy was made, when hydrilla coverage was much less extensive. At that time the Corps announced plans to treat hydrilla in only 1% of the reservoir held at 13,190 acres.[1] Treating 20% of that area would cost $1,925,000 per year.

These estimates are comparable to those derived from the most recent aquatic weed survey on Rodman Reservoir. This survey was made at the close of the growing season in October, 1977, by the Florida Game and Fresh Water Fish Commission.[2] About 6,500 acres are included in the "practical pool," that part of the reservoir potentially accessible to motorboats. The remaining 2,700 acres in the upper (southern) end of the reservoir are very shallow and occupied by stressed swamp forest. Of the 6,500 acres in the practical pool, only 14% (925 acres) had open water in October; almost one-half of this open water (400 acres) was in the original river channel. Hydrilla had increased by 73% since the October, 1976, survey, and was rooted in 15 feet of water near Rodman Dam. To obtain 50% open water in the practical pool would cost (depending on how much die-back there was in the winter) up to $1,241,000 per year. To obtain 50% open water in the entire 9,200 acre reservoir would cost up to $1,961,000 per year.

These figures present reasonable limits, though there will never be general agreement on any single figure for weed control. If the reservoir weed control program included drawdowns the cost might be lower, but then the fishing and recreation benefits for the reservoir would also have to be reduced.

2) Elimination of operation and maintenance costs. The Corps[3] claims that the following O & M costs will be eliminated if the reservoir is drained and Buckman Lock filled in:

Canal (St. Johns River to Rodman) and Buckman Lock		$127,000
Rodman Dam		40,000
Miscellaneous (snagging, etc.)		100,000
	(Av. Ann.)	$267,000

3) Fishing Benefits. The FGFWFC fishery biologist who conducted the fishery restudy for the Corps has calculated the expected fishing benefit for the restored river.[4] He used the Corps figures for fishing effort (210 man-hours/acre/yr x 400 acres x 1/4 = 21,000 visitor days per yr) and dollar values of $1.80 per visitor day for the first 5 yrs, $2.25 per visitor day for the remaining years. He disagreed with the Corps' peculiar assumption that no fishing benefits would accrue for the first 25 years after restoration. Rather, he assumed that 50% of normal fishing effort for a river fishery would begin in the first year, and that full fishing effort would be restored within 20 years. The resulting average annual benefit for the river fishery would be $40,000.

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[1] CFBC Final Environmental Impact Statement, Feb. 1977, pp. B-1, B-2.
[2] Hestand, Rue, FGFWFC, Fisheries Research Laboratory, Status report on the aquatic vegetation in Rodman Reservoir, Oct. 1977, mimeo, 3 pp.
[3] Sam Eisenberg, Civil Engineer, Jacksonville District, COE, personal communication, Jan. 1978.
[4] Gray Bass, Fisheries Biologist, FGFWFC, personal communication, Jan. 1978.

4) Recreation benefits. The Bureau of Outdoor Recreation (BOR) specialist[1] who conducted the recreation restudy for the Corps has calculated the recreation benefits for the restored river valley, using Corps methodology and its dollar values of $2.25 per recreation day. In his opinion, however, recreation benefits (such as canoeing and hiking) would begin five years after restoration, rather than 25 years as assumed by the Corps. The resulting average annual recreation benefit would be $761,000.

The Corps' 25 year waiting period was based on estimates of the time required to restore the forest to mature, preimpoundment conditions. The Corps claims that no fishing and no recreation will take place in any stage of stream recovery or forest regrowth short of that which they destroyed to construct the reservoir. Yet the Corps has claimed substantial fishing and recreation benefits for the newly-built reservoir and for a campground built on its deforested, grassy shores.

5) Hunting benefits. The average annual benefit for hunting in the restored forest is estimated by the Corps to be $127,000.[2]

The benefits we have listed for fishing, hunting, and recreation in the restored river valley are conservative figures for the value of these activities in the project area itself. Beyond these primary benefits, restoration of the Oklawaha River and its forested valley should provide even greater secondary benefits to the region's tourist industry--money spent for food, lodging, and transportation. The value of these benefits will vary according to the use made of the valley (for example, National Recreation Area, National Wild and Scenic River, maximum tourist development). Potential tourist values for these and other alternatives were calculated by Dr. Ronald North[3] in preparing his EPA-sponsored report, "Highest and Best Use of the Oklawaha River Basin..." He concluded that both the primary recreation benefits and the derived tourism benefits would be far greater for the restored river valley than for the reservoir if it were preserved.

Costs of Draining Rodman Reservoir and Restoring the Free-Flowing Oklawaha River

1) Costs of restoration. The restoration alternative for Rodman Reservoir that was recommended to President Carter by the Secretary of the Army and the Secretary of Agriculture would cost a minimum of $4,829,000. This amount would be needed to remove Rodman Dam, fill in Buckman Lock, and fill in part of the canal ditch between the St. Johns River and Rodman Reservoir. In addition, up to $1,050,000 more (for a maximum of $5,879,000) might be needed for reforestation, depending on how effective natural reforestation is. Discounting these totals over 50 years gives an average annual cost of from $323,000 to $393,000.

There would be additional costs for constructing and maintaining facilities such as campgrounds and boat ramps in the restored valley. These costs would vary depending on the level of development decided on.

2) Foregone recreation benefits. The Corps estimates that the average annual value of reservoir-related recreation would be $174,000.[4] It must be pointed out that

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[1] Jeff Chidlaw, Recreation Specialist, BOR, personal communication to David Peterson, CFBC Coordinator, Fish and Wildlife Service, DOI, April 1977.
[2] CFBC Final Economics Restudy Report, Feb. 1977, Table 22, p. 40.
[3] North, R. M., The highest and best uses of the Oklawaha River Basin and Lake Rousseau for the economy and the environment. CFBC Restudy Report, 1976.
[4] CFBC Final Economics Restudy, Feb. 1977, Table 14, p. 31.

this does not represent a net loss of recreation to the region. There will be a transfer of users from Rodman to other lakes in the region. The Final Economics Restudy Report (p. B-1) points out that, "...the issue of recreation alternatives may be a moot point since the BOR report assumes that sufficient lake-type recreation is currently available in the region of Florida through which the canal would pass."

3) Foregone fishing benefits. Meta Systems, Inc., estimated that 30,000 to 70,000 fisherman days per year would be "displaced" if the reservoir were drained.[1] At $1.80 per day, this would be an average annual "loss" of $54,000 to $126,000. The Corps places the average annual reservoir fishing benefits at $110,000.[2] This amount assumes no decrease in fishing effort over the 50 year life of the reservoir. The Corps admits, however, that even intensive management of Rodman Reservoir would only slow the inevitable long-term deterioration of the reservoir fishery.[3]

One indication that this relentless decline has already begun can be found in the Welaka tournament records of the Bass Anglers Sportsman Society. In 1974 and 1975 one bass was caught for each four hours of fishing effort. In 1976, with 90% of the anglers fishing in Rodman, the catch fell to one bass for each 6.7 hours of effort by the best professional bass fishermen in the country! In 1977 many of the B.A.S.S. fishermen avoided Rodman altogether because of their poor success there the year before. The catch rate fell to one bass for each 11 hours of fishing, partly due to the very cold weather early in the year.

It should be emphasized that north central Florida has a surplus of flat-water areas, and that there would be little if any net loss of either fishing or recreation benefits if Rodman were drained. There would simply be a transfer to other nearby lakes.

Draining the reservoir would involve little if any loss to marinas, fish camp operators or lake shore property owners. There are none of these on the reservoir shores now. Similarly, there would be no net loss to sellers of boats, motors, and fishing equipment, because there is already a surplus of lakes in the area, and fishermen and boaters who now use the reservoir would use one of the neighboring natural lakes.

ENVIRONMENTAL IMPACT

Water

Some misinformed people have claimed that Rodman Reservoir is important as a potential source of water for the immediate region and beyond. The exact opposite is true. Rodman wastes and degrades large quantities of water.

Despite misleading claims made for it, Rodman Reservoir is not a good potential source of water for the surrounding region, or for other regions should inter-basin transfers be deemed desirable in the future. The best source of water in this region is the aquifer. Aquifer water is plentiful and clean. The water in Rodman Reservoir

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[1] CFBC Final Economics Restudy, Feb. 1977, p. 34.
[2] Ibid., Table 22, p. 40.
[3] CFBC Final Environmental Impact Statement, Feb. 1977, p. 45.

is degraded by turbidity, coliform bacteria, organic stains, and algal oils that are very difficult to remove. Water taken directly from aquifer wells and spring runs is cleaner and needs no expensive purification. Well fields must be carefully placed, of course, to avoid adverse local effects on the surface waters and vegetation.

Rodman was designed to float barges. It is too shallow for effective storage, and will continue to fill in with silt and decomposed plants. Even now only 3% of the 9,200 acre reservoir is over 15 feet deep; 50% is 6 feet deep or less, and 29% is three feet deep or less. The daily water loss, via evaporation from the water's surface and transpiration from exposed aquatic plants, has been conservatively estimated to be about 28 million gallons. Evapo-transpiration losses would be about 7 million gallons per day less from the restored river and forest.[1]

In other words, Rodman does not "store" water that would otherwise be "lost" into the ocean as has been claimed. Water entering the reservoir still flows through it, over the dam, and on downstream. The reservoir merely slows down this flow and spreads it out in a shallow layer. As a result, a greater surface area and more time for evaporation are provided. Thus the downstream flow is reduced by the amount lost to the atmosphere. Rodman does not "save" water--it loses water.

What is the value of the water that flows on down the Oklawaha and into the St. Johns? The St. Johns is a drowned estuary, with tidal effects reaching upstream for approximately 100 miles. Important commercial harvests of shrimp, crabs, and fish will be adversely affected if the salinity of the brackish water increases beyond the levels to which these animals are adapted. For years the salinity gradient has been moving upstream. The flow of fresh water down the St. Johns has already been reduced by diversion of hundreds of millions of gallons per day from the headwaters to the coast via canals. In addition, water is held in the headwater lakes for agricultural freeze protection, and to stabilize lake levels for lakeshore residents. These practices, also, reduce the downstream flow by increasing evaporation losses.

Reduced river flows decrease the quality and quantity of clean water available for residential, municipal, industrial, and agricultural needs--needs that are rapidly increasing. The evaporation of water from Rodman Reservoir further reduces the flow of fresh water into the St. Johns, though this loss represents only a small fraction of the total decrease in downstream flow. This adds to the stress on the system, stress that can be reduced by draining Rodman and restoring the free-flowing river.

It has been claimed that water in Rodman Reservoir will somehow add to the volume of water in the aquifer. This is not true. Rodman is in a zone of aquifer discharge, where water naturally leaves the aquifer through many springs. Returning the Oklawaha to its natural level will restore 20 of these once-beautiful springs and spring runs, such as Blue Springs, which are now submerged.[2]

Still another erroneous claim is that Rodman has value for flood control, holding back high waters for use during dry periods. Even the Corps claims no flood control benefits for Rodman. The natural flood plain--at no cost to man--does a better job of absorbing and gradually releasing flood waters than the impoundment would do. Moreover the natural flood plain also purifies the water by filtering it through leaf litter and soil. The healthiest possible water regime can be obtained by restoring the free-flowing Oklawaha and its flood plain forest.

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[1] Sandra Brown, Center for Wetlands Research, University of Florida, personal communication, Jan. 1978.

[2] Abbott, Elizabeth F., Department of Geography, University of Florida, Twenty Springs of the Oklawaha, 1971, mimeo, 14 pp.

Wildlife

Replacing Rodman Reservoir with a river and a forest would clearly benefit the many species of terrestrial and swamp wildlife that were locally extirpated when the forest was crushed and drowned. Among these animals are 10 species such as the Florida panther, black bear, and indigo snake that are classified as Endangered or Threatened by the State or Federal governments. The beneficial effect on these species would be far greater than would be expected simply from recovering about 9,000 acres of forest habitat. The reservoir has fragmented a once-continuous forest habitat that is vital for wide-ranging species such as the panther. Restoring the forest in the reservoir area will reconnect the upper and lower Oklawaha riverine forests and restore its integrity as wildlife habitat. The river bottom forest is the richest terrestrial habitat in the Ocala National Forest region--an important shelter and seasonal food source for many species, and a corridor of movement for others.

One might expect that all aquatic and water-associated animals would generally lose if the reservoir were drained. This is not true. The Endangered manatee does not inhabit Rodman Reservoir, but four have died in Buckman Lock or the canal ditch between Buckman and the St. Johns River. Blocking this section of the canal would eliminate that threat, and might also reduce boat traffic in the adjacent area of the St. Johns, which has been declared critical habitat for the manatee. Other species such as the limpkin and wood duck would gain in the long run if the river and swamp forest were restored. These are water-edge and swamp species, and are now found on the reservoir only where dead trees are still standing--a temporary habitat. The restored meandering river, on the other hand, would have a longer wooded shoreline than the reservoir has, plus large areas of permanent swamp. Reptiles and amphibians better adapted to springs and riverine conditions than to warm, shallow lakes would also benefit from restoration of the river.

Other species of special concern such as the bald eagle, osprey, and wood stork, plus a variety of herons, would lose feeding habitat if the reservoir were drained, but abundant feeding habitat is available on other nearby waters. Some of these species might ultimately gain nesting habitat, which is in relatively short supply, as the swamp forest recovered. If Rodman were drained it is unlikely that there would be any significant effect--good or bad--on regional populations of any of these species.

The fast-increasing alligator, recently reclassified from Endangered to Threatened, might be expected to lose the most if the reservoir were drained. Certainly it would be less conspicuous, but the ultimate effect on the gator is hard to assess. No one knows how many alligators lived in the original swamp, or how the river swamp compares with the reservoir as alligator feeding and nesting habitat.

Fish

Lake-adapted species would lose open water habitat, river-adapted species would gain from river restoration. The Oklawaha has long been famous as a home for big "lunker" bass, and most of the large bass caught in Rodman Reservoir have been caught in and near the original river channel. Removing Rodman Dam would eliminate the tailrace fishery, but this would be compensated for by restoration of the spawning migrations of anadromous fishes such as the striped bass and shad. After assessing the long-term fishery potential of both Rodman Reservoir and the restored river the Florida Game and Fresh Water Fish Commission recommended that the Oklawaha be restored. They stated "However, in the long term, the option to 'restore to original condition' would foster the optimum, self-sustaining aquatic ecosystem of the Oklawaha River Valley."[1]

[1] FGFWFC, Fisheries Study, CFBC Restudy Report, May 1976, pp. 65-66.

Vegetation

Plant succession and tree growth in Florida are rapid. Within five years of draining the reservoir, according to the U.F. Forest Service and Bureau of Outdoor Recreation, sufficient plant regrowth would occur to permit the commencement of recreation benefits in the valley. Within 25 years the forest would look much as it did before canal construction began, though complete recovery to pre-canal conditions, as judged by a professional botanist, would take much longer. Wildlife use of the earliest stages of forest regrowth would be heavy, with gradual changes in the species present, as the forest matured.

Rodman Reservoir is one of Florida's foremost producers of hydrilla, the State's number one aquatic weed problem. Hydrilla thrives in shallow, still waters, but is not very troublesome in swiftly flowing streams. Elimination of thousands of acres of this plant by draining Rodman will remove a continuing source of contamination of other lakes.

CONCLUSIONS

The recreation and esthetic experiences offered by Rodman Reservoir are of minimal quality. Fishing there was initially good, but has already begun its predicted decline. We believe that even if Rodman Pool could be maintained permanently as a high-quality fishery at a reasonable cost (which it cannot), the restored river and its forest would be more valuable still. Those fishermen and boaters who prefer flat-water lakes and impoundments already have a wide choice of these waters nearby--a surplus according to the Bureau of Outdoor Recreation. The needs of those who prefer to fish, canoe, camp, enjoy the scenery, and study nature along wild rivers must also be considered.

Restoration of the river and forest is both technically feasible and economically reasonable. The long-term returns from recreation, fishing, and tourism would be many times greater than the benefits from retaining Rodman Reservoir, and would repay the initial investment many times over. Designation of the restored Oklawaha as a National Wild and Scenic River would be one way of ensuring its permanent protection and of drawing national attention to it. Wild rivers are in great and growing demand nationwide, while the supply is rapidly diminishing. We already have a surplus of shallow, snag-filled, weed-choked lakes. We now have an opportunity to trade a surplus, declining resource that would be difficult and expensive to maintain, for a scarce, higher quality resource that would maintain itself and improve in value at little or no cost to man.

All of the statewide conservation organizations in Florida, the Florida State agencies involved, the Governor and State Cabinet, and federal agencies and advisory groups such as EPA, CEQ, and the Departments of the Interior and Agriculture are on record as favoring restoration of the Oklawaha River Valley. It is time to begin.

July 26, 1978 /r.

STATEMENT TO SUBCOMMITTEE ON WATER RESOURCES
U. S. SENATE COMMITTEE ON ENVIRONMENT AND PUBLIC WORKS

by GILES L. EVANS, JR.

Mr. Chairman and members of the Committee, I am Giles L. Evans, Jr. of Jacksonville, Florida. Speaking as an individual, and on behalf of the Cross Florida Canal Association, a private citizens' organization of which I am a member, I urge you to kill S.1592 and any proposal ancillary thereto.

I am a Professional Engineer, registered in Florida and elsewhere. For over 16 years I've served as Executive Secretary of the Cross Florida Canal Navigation District and as Manager of the Canal Authority of the State of Florida, local sponsor the the Cross Florida Barge Canal project. I've participated in countless conferences, public hearings, and meetings; and was a member of the District Engineer's local Inter-Agency Coordinating Group during generation of the Corps' EIS and Restudy Reports.

I've repeatedly testified, under oath and subject to cross examination, in the Federal litigation on the Barge Canal, as well as in numerous related State Court cases. I've observed dozens of other witnesses testify in court; but often have noted strange dissimilarities between court testimony and assertions uttered in free-wheeling public hearing forums where speakers are not under oath and subject to cross examination.

In all these studies, conferences, and court proceedings, I've found nothing to contradict conclusions expressed in the House Appropriations Committee's report No. 95, dated 25 May 1977, on Public Works Appropriations for FY '78, following the Committee's Recall Hearing of Corps witnesses on 21 April 1977. Among other things, the Committee noted that the project posed no threat to the Floridan aquifer nor to the water supply of South Florida; that there were no adverse environmental impacts that could not be overcome by sound engineering practices; that no rare or endangered species would be affected significantly; that the project already affords many environmental enhancements; and that consideration of all applicable benefits yields an extremely favorable Benefit/Cost ratio.

S.1592 AN UNCONSCIONABLE PROPOSAL

S.1592 is unconscionable from considerations of equity or virtue and from numerous other aspects:

- S.1592 would condone, legitimatize, and perpetuate an unconstitutional arrogation of Congressional powers, by the Executive Branch.

- S.1592 would ignore the local sponsor's unremitting and unflawed fulfillment of its statutory obligations; and arbitrarily would betray local project area citizenry's trust in the Congress, and its reliance that the United States would uphold the other end of the bargain.

- S.1592 would efface, groundlessly, legislative and adjudicative records which clearly and strongly justify prompt completion of the Cross Florida Barge Canal.

- S.1592 would disrupt beneficial new project area environmental conditions in unwarranted pursuit of nebulous environmental changes.

- S.1592 would block a key development towards completing an integrated national inland waterway system; and callously would snatch major economic and environmental benefits from project area interests, while professing an unreal, a disproven, and discreditable objective--restoring the Oklawaha River to some unattainable sort of Scenic and Wild River category.

- S.1592 would abrogate, unilaterally, existing contractual obligations between the local sponsor and the United States, without measuring the overall costs; and without providing any equitable compensation for local tax contributions made in support of the local sponsor's requirements.

- S.1592 would perpetuate existing railroad monopoly, and forestall consumer savings in moving coal from mid-continental United States to several imminent major new coal-fired electric generating plants in eastern Florida.

Construction of the Cross Florida Barge Canal had been underway for seven years, close to 40% of the work had been contracted, and

the local sponsor had made over 90% of the right-of-way available, when a 19 January 1971 White House press release announced termination of the project. This was not a Lincoln- Dickey, Snake River, nor comparable project in formative stages. It was well-advanced; and major components such as Lake Ocklawaha were complete, in operation, and yielding appreciable benefits.

The local sponsor and allied parties immediately contested constitutionality of the Executive action. Following extended legal proceedings, and a lengthy trial, the Federal Court, on January 31, 1974, ruled the President's termination effort invalid and unconstitutional. The Court dismissed all specific charges of environmental damages, and ordered the Corps to compile an overall impact statement as the Congress had directed in its 1972 Public Works Appropriation Bill. (The Executive had impounded funds appropriated for this purpose.)

The Court emphasized that ultimate authority over the project rests with the Congress.

The Executive branch has continued its efforts to usurp Congressional prerogatives and to dictate future project disposition. It imposed a Washington level supervisory group to guide the Corps' handling of its restudy program--the only known instance among thousands of Federal EIS efforts. The ultimate product was not an EIS on the authorized project; was neither fish nor fowl; but rather a side-by-side "do or don't" analysis. Nevertheless, careful review of the entire report clearly indicates that this project, when judged by same standards as others, should proceed.

The Administration persistently ignores Congressional directives on calculating project benefits, as enunciated in Section 209, PL 91-611, Water Resources Act of 1970; in Section 140, Water Resources Development Act of 1976; on pages 9, 65-66, 69 of H Report 95, May 25, 1977, accompanying Fiscal Year 1978 Appropriations Bill. The Administration still refuses requests from the House Appropriations Committee for Benefit/Cost computations utilizing regional benefits. It capped its disregard for proprieties in handling this project by delaying over a year after submitting the Final EIS to the Court, before filing with EPA--and only then under direct threat of a Court mandate. The Congress should not approve S.1592 and thereby perpetuate these Executive arrogations of Legislative prerogatives.

Forty-five years ago the Florida Legislature created a public Corporation, now called the Canal Authority of the State of Florida, empowered to build and operate, or serve as local sponsor for a Federal waterway across north-central Florida. This Corporation, under provisions of Chapter 374, Florida Statutes, still acts as local sponsor for the Cross Florida Barge Canal. It tendered the requisite assurances, and these formally were accepted by the United States prior to starting construction in February 1964.

The Authority, in furtherance of its assurances and obligations, acquired and furnished the required rights-of-way in conformance with the Corps' construction schedule. At no time did lack of right-of-way delay construction. By the time of the unconstitutional White

House construction halt, the Authority had over 90% of project requirements in hand, and was well ahead of construction schedules. The Authority did suspend further acquisition when construction stopped.

The Authority has ample assets to acquire remaining project rights-of-way; and it repeatedly has assured the Corps of its readiness and willingness to resume rights-of-way acquisition as soon as the United States proceeds with its construction obligations. The Authority considers there exists a continuing contractual obligation and does not propose to abrogate this contractual relationship.

The Florida Supreme Court, in a June 1976 decision upholding Authority acquisition proceedures, reiterated the Legislative mandate under which the Authority operates, and the contractual relations with the United States. The United States Justice Department, in unrelated 1977 Federal Court proceedings, also cited this contractual relationship.

Starting in 1935, six counties along the project route voluntarily joined in a taxing district to furnish rights-of-way funds. Over the years this district has raised more than $9 million from ad valorem taxes on real property. The citizens of these counties, situated along the project, still wholeheartedly support its completion.

Project supporters out-numbered opponents by almost 50% at the two-day Cabinet hearing in Tallahassee, 16-17 December 1976. Local supporters included labor, business, civic, minorities, women,

educational, and local government agencies. Only a couple of individuals from the project environs appeared in opposition. Most opponents came from South and Southwest Florida, a hundred or more miles away, plus a sprinkling from the Gainesville academic community which lies well outside the local taxing district.

Local citizens are disillusioned and dismayed at Executive efforts, State and National, to rob them of their project opportunities and benefits. They are trusting the Legislative branches to preserve their interests. The Florida Legislature, despite intense Executive pressures for the last two years, has not betrayed this trust. We all trust the Congress will show equal regard for those most concerned, the citizens along the project and its immediate environs.

In 1970 the House Public Works Appropriations Committee of the Congress heard lengthy testimony and reviewed voluminous documents, pro and con this project. The Committee concluded that long-term environmental and economic gains far outweighed short-term losses. The Senate Appropriations Committee concurred; and so did the Congress, with an increased appropriation.

That same year, Natural Resources Committees in both Houses of the Florida Legislature conducted lengthy studies of the canal issues, and both declined to take any adverse action.

The lengthy Federal Court trial on the numerous canal issues resulted in findings that the project posed no threat to Florida water supplies, above or below ground; that a new environmental status had

evolved and should be unaltered without Congressional sanction; and rejected claimed environmental damages.

While the Corps' Final EIS lists a number of potentially impacted rare and endangered species, and asserts a number of possible environmental degradations, careful review of all the data reveals no significant adverse environmental damages; and shows that most of the adverse claims are conjectural--not factual.

Proceedings of the House Appropriations Recall Hearing on 18 April 1977 and its Hearing on 15 February 1978 clearly reveal the illogical and labored rationalization behind the 25 February 1977 Chief of Engineers' recommendation against further construction. At the same time, the Chief of Engineers carefully had failed to propose deauthorization.

As the House Appropriations Committee proceedings clearly point up, the Corps' economic analysis utilized disparate and discriminatory standards on this project restudy. The draft report in 1976 omitted sunk costs for works already completed. As the Corps' notations explained, sunk costs were omitted because they were irrelevant to the economic analysis. This was the correct economic approach.

But outside political pressures changed the picture, so that the Corps' final reports do include sunk costs as elements of the benefit/cost ratio, and have generated a reduction of 0.22 in the B/C ratio. The sunk capital costs amounted to $73,244,000; and interest

during construction for these works was figured as one-half the seven year construction period between 1964 and 1971, plus fourteen years between 1971 and 1985. But those works are in place, have been yielding benefits for seven or eight years, and required a construction period of only seven years.

As the Corps' foot-notes indicate, using a more appropriate interest during construction time frame of seven years would raise the B/C ratio by 0.05. This, in turn, would negate any "policy" justification for omitting Area Redevelopment Benefits.

The Corps' rejection of 10% contingency for undisclosed traffic appears equally biased. After the Corps completed its traffic study and most of its public meetings scheduled in the summer of 1976 for displaying its draft reports, 5% new traffic identified itself to the Corps in a period of three months. This assuredly substantiates the validity of the contingency traffic factor commonly used. It would make a further increase of 0.07 in the B/C ratio.

Without even considering the questions of coal traffic or regional benefits, the project clearly remains economically viable when judged on same basis as other comparable water resources projects; and S.1592 should be rejected.

The Corps reports show that project structures provide benefits in recreation, fish and wild life, and flood control; reservoirs will support more fishing man hours than the present river; impoundments

create new wildlife habitats for eagles, osprey, wading birds, alligators and the like; disposal islands in the Gulf benefit nesting diamond-back terrapins and sea birds; impoundments tend to raise ground water levels for short distances around impoundments and thereby reduce concentration of dissolved solids (chlorides and hardness ions) in the aquifer; structures on lower Withlacoochee reduce flood potential from Dunnellon to the Gulf. The proposed construction plan preserves essentially intact the river flood plain in the Eureka reach. S.1592 arbitrarily would erase most of these environmental benefits in favor of some ill-defined valley restoration objective. Existing legal conditions and current court proceedings render these goals highly questionable.

The Chief of Engineers last year told the House Appropriations Subcommittee:

> "Transportation carries the life blood of our modern society. Efficient and economical movement of people and goods is essential to every sector of our economy. Federal deep-draft channels serve our overseas trade, and inland waterways carry vast quantities of goods between our nation's cities. Surely this nation needs and deserves a first-class water transportation system."

As the Committee spokesman noted, the Cross Florida Barge Canal, connecting the Atlantic and Gulf-Mississippi Intracoastal and Inland Waterway complexes, would be a key element in such a first-class water transportation system. President John Kennedy seemed to have the same point in mind when he submitted his 1963 Budget Amendment to begin construction. His message pointed out the potential for moving strategic materials and supplies between the mid-continent and the southeastern coastal regions.

Such diverse interests as the Ports of New Orleans and Houston, mid-west grain exchanges, the State of Georgia and City of Sanford Port Authorities, support the project as an essential national transportation facility--not merely a local Florida political pawn.

The Socio-Economic study, funded by EPA and prepared by Meta Systems, Inc., as one element of the Corps' restudy program, projects the canal would increase regional employment by 6% in 1990 and 11% in 2030, above levels without the canal. The completed Gulf leg of the canal already has attracted a $10 million quarry facility and beginnings of a private port industrial park. Within the past week further industrial prospects are considering a new facility sited on the canal bank. Palatka and Sanford several years ago built local barge port facilities in anticipation of the canal's completion. S.1592 should not be allowed to emasculate arbitrarily these economic activities and expectations.

THE OKLAWAHA - A WILD AND SCENIC RIVER HOAX

Despite repeated professions to the contrary, the Oklawaha River simply does not, and for many years to come cannot, qualify for National Scenic Wild River status under existing laws and standards. The river is no rapid, white-water, stream through a primordial wilderness. It is a rather slow-flowing, small river winding and twisting through a narrow swamp valley of cut-over timberlands, with some abutting farm operations, plus major man-made alterations and structures.

The Oklawaha has been an artery of navigation since colonial Spanish days. It primarily handled commercial traffic, except for military operations during the Seminole Indian and Civil Wars, until railroads and new highways replaced the river trade in the 1920's. For the last two or three decades pleasure power boats have become the principal navigation activity, and a Federal Navigation Project extends 85 miles from the river's mouth to Leesburg (R & H Act of 19 September 1890).

Timber operators repeatedly have cut merchantable trees, especially cypress, along the river since before the turn of this century.

As late as 1972 the Canal Authority was timbering most of the Eureka reach in efforts to salvage timber prior to reservoir clearing. Pre-construction aerial photographs of the Lake Ocklawaha area show

old striations marking cable haul-lines for snaking felled trees to the river's edge.

In the early 1940's Florida Electric Utilities purchased much of this valley, intending to build two low-head hydro-electric generating plants at the approximate sites of the Rodman and Eureka Dams. Technological advances changed these plans; but the local sponsor did acquire several thousand acres in the two reservoir areas from the utility.

Elsewhere along the river, real estate developers, by 1962, had begun to acquire and sub-divide likely locations into camp sites and trailer parks. These sites usually had no sewage facilities other than septic tanks, or less; and discharged raw sewage into the river. The local sponsor wiped out these problem areas in acquiring reservoir lands; but a number of the sub-division canal systems remain visible.

Intimations that the Oklawaha River might be restored and converted into one of the stream categories under the National Scenic and Wild Rivers Act seem particularly specious and mis-leading. The stream already has been straightened, dammed, canalized, and cleared in various reaches. The Kyle-Young Canal and Four Rivers Basin project have altered the 32 miles between Silver Run and Leesburg. Lake Ocklawaha impounded about 21 miles, leaving 10 or 12 miles below Rodman Dam and 22 miles in the Eureka reach unchanged, except for isolated farming and residential facilities.

Designation of a stream as an element of the National Scenic and Wild Rivers system entails control and supervision by some prescribed Federal or State Agency. These controls almost invariably lead to constraints, followed by eliminating all powered boat traffic. Generally, the next step is to limit the number of individuals on the stream at any one time. Eventually, a reservation system follows.

Today there are several thousand registered power boats in the Lake and Marion County upper environs of the Oklawaha River. The river serves these thousands (as well as other thousands from the St. Johns River Valley) as a fishing and pleasure boating passageway between the Oklawaha Headwaters and the St. Johns estuary. The Federally authorized navigation project provides a 4½-foot deep channel from the mouth to Leesburg.

Scenic and Wild River categorization is completely incompatible with historic and current navigation activities along the Oklawaha; and any such classification will impair the millions of dollars invested in private power boats which utilize the Oklawaha navigation project. These interests cannot be ignored, equitably, in order to cater to the desires of canoe and float devotees.

Several studies have considered the Oklawaha's Scenic and Wild River potential, starting back in 1962, when it received priority 5 out of 8 Florida streams examined and was deemed appropriate for State, rather than National, classification. The U. S. Bureau of Outdoor Recreation recently examined all the major streams of Peninsula

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Florida and eliminated the Oklawaha from consideration, in its report of August 1975.

The 1975 BOR report rejected the Oklawaha because of impoundments, channelizations, and residual segments too short for acceptance. The report did place priority "A" on elements of Peace, Hillsborough, Withlacoochee, Waccasasse, and S wanee.

During Tallahassee conferences last summer, Bureau of Outdoor Recreation experts acknowledged that the Oklawaha never could qualify for Scenic or Wild category, but might attain Recreation designation were all the structures removed followed by several decades of revegetation. The estimates range from 25 to 75 years but any such program will be marred by wide areas of low growing plants insignificant in height against a tall forest back-drop to the broad reservoir clearings.

While the Oklawaha has lots of bends and turns, it is not a swift stream. The Gazetteer of Florida Streams, Florida Board of Conservation, 1966, gives comprehensive data on characteristics of various streams. The Oklawaha carries one of the smallest gradients in the entire tabulation, .7 feet per mile. The Corps' 1891 annual report states the current between Silver Run and the mouth averages 1.3 feet per second. The report also decries the careless handling of timber rafts which resulted in sunken logs and felled tree tops impeding navigation.

William Jennings Bryan, recounting his 1912 steamboat trip between Silver Springs and Palatka noted that cypress timbering had

wiped out much of the river's natural beauties.

S.1592 - AN ECONOMIC PIG IN A POKE

S.1592 professes to support the Administrations' longer range goals of "restoring" the Oklawaha River Valley and disposing of project facilities. Any such restoration entails destruction of Lake Ocklawaha and assorted degrees of effacing project works already constructed in the Oklawaha Valley through investment of about $26 million in public funds. We are not privy to the precise alternative recommended to the White House by the Secretaries of Army and Agriculture; nor have we been advised of the final White House choice. We are advised that the proposed solution would destroy Lake Ocklawaha and much of Rodman Dam as a start.

Careful scrutiny of the Corps' report on Alternatives indicates that the probable selection will cost somewhere between $16 and $30 million if all goes well. But current ligigation initiated by land owners in Florida courts, seeking repossession of lands taken for canal rights-of-way, almost certainly insures that all will not go well should Congress enact S.1592; and that gaining full Federal, or State, control of the Oklawaha Valley will require repeating a land acquisition program at an open-ended cost.

S.1592 hardly puts the "camel nose under the tent", fiscally speaking. The bill certainly should incorporate authorization for these outlays so as to put the whole picture on the table. The Administration and its allies apparently have been seeking to escape any such compre-

hensive exposure. As indicated by Florida Defenders of the Environment representatives, in briefing selected elements of Florida's Congressional delegation on April 7, 1978, initial strategy has centered on limiting 1978 effort to deauthorization, deferring destruct and restoration aspects till later--then seek increase in size of Ocala National Forest and utilize acquisition disbursements to repay counties.

A Marion County Circuit Court has ruled that former land owner is entitled to reacquire his land at the price received, less timber removed, in case of deauthorization. This case is on appeal, where the Court expressed concern and sympathy with the land owner. A comparable suit has been filed in Citrus County, so that the parade has just begun. Over half of Lake Ocklawaha was acquired by easement; and these lands automatically revert to the land owner in case the canal project be terminated.

A settlement covering lands in the immediate vicinity, taken by Federal condemnation in 1970, was reached within the last couple of months. The agreed values, as of June 1970, were around $700/acre; but will be far higher in today's market should the U. S. endeavor to take these Lake Ocklawaha lands.

These facts, added to the costs already sunk in constructing the existing works, reflect an overall cost to the taxpayer of well over $50 million just to get the Valley in a position where the 50-75 year "restoration" period can begin.

CANAL ESSENTIAL FOR ECONOMICAL BURGEONING COAL MOVEMENTS

National energy policy is mandating for greater coal utilization. Eastern Florida is no exception. Jacksonville Electric Authority is in process of designing two new major generating plants to be sited near the St. Johns River; Seminole Electric Cooperative already has begun processing comparable units most probably sited on the St. Johns near Palatka. Florida Power and Light has just announced plans for a 730 megawatt coal fired unit.

The Corps' studies indicate highly probable coal supply origins in Western Kentucky or vicinity, with a consequent savings of $2.50 per ton on transportation to Jacksonville, which would amount to about $3.00 per month savings per consumer household in the JEA service area. Comparable economies should accrue to Seminole interests.

Seminole and JEA each probably will need about 9000 tons of coal per day. Of course, the SCL Railroad is anxious to capture that new traffic as it develops.

This canal project affords an alternate means of transportation and insures competition to the ultimate benefit of the consumer. S.1592 should not become a tool to perpetuate this rail monopoly on the huge new volumes of coal moving into the southeastern seaboard.

PROJECT NO THREAT TO AQUIFER OR FLORIDA WATER SUPPLY

Well meaning, but ill-informed individuals, usually in South Florida, long have feared the spectre of the canal disrupting or cutting

off fresh water supplies for South Florida, or adversely affecting the Floridan aquifer. This issue was one of the main points of contention, and was covered at great length, during the extended Federal Court trial in the summer of 1973. The Court ruled that the Chief of Engineers had been correct in concluding the canal posed no threat to Florida's water resources.

A. U. S. Geological Survey expert (Glen Faulkner), who had supervised extensive investigations and monitoring of the geo-hydrological and ground-water regimens along the canal route, testified that the canal had no impact, whatsoever, on water supplies of North or South Florida; that the only impacts, at all, the canal would have on either ground-water or surface water supply regimens of Florida would be limited to a narrow strip 3 or 4 miles either side of the canal; that there would be absolutely no connection between this strip and water resources of south or north Florida; and that even within this narrow corridor of influence, impacts primarily would be minor adjustments, plus or minus, in piezometric levels, or top elevations of the water table. His testimony was corroborated, under oath, by testimony of the Florida State Geologist, Dr. Robert Vernon, and of Dr. Phil Lamoreaux, Alabama State Geologist who formerly headed the Ground Water Supply branch of the U. S. Geological Survey.

No opposition testimony, nor evidence, attempted to refute these experts. No qualified expert to this day has negated their position. Even Environmental Defense Fund and Florida Defenders of the Environment geo-hydrologic experts acknowledge the lack of canal impacts outside the

immediate project environs. The Federal Court dismissed, as invalid, opponents' contentions about water supply impairments.

The Floridan aquifer is a limestone formation comprised of two zones, the upper being the Ocala lime, the lower the Avon Park stratum. The Floridan is about one thousand feet thick and generally is exposed to rainfall recharge in the Green Swamp area south of, and higher than, the operating level of the canal; and by a similar, but smaller, recharge area north of the canal. Obviously, Barge Canal waters first would have to flow up-hill, against gradient from the Green Swamp, and then down slope to reach South Florida. Such a phenomenon would require changing basic natural laws of hydro-dynamics.

As the Floridan formations extend southward, the aquifer surface dips steadily until, in the vicinity of Miami, it is about one thousand feet underground. This southward section of the Floridan has an almost impervious covering shield comprised of clays, marls, and similar sealant materials. This shield grows thicker as the Floridan extends southward.

In the Miami vicinity, the deep-lying Floridan aquifer is filled with salt waters; and area agencies have been experimenting with disposing waste waters by pumping through deep wells into this deep-lying salt portion of the Floridan aquifer.

Around Miami, another water-bearing formation called the Biscayne lies on top of the impervious shield which isolates the Floridan formations. The fresh water supplies of the area come from this Biscayne

aquifer along with surface waters retained in various local conservation areas.

NO SALT WATER THREAT

Trom time to time great hue and false alarms have arisen that the canal would cause salt water intrusion into the aquifer. This is a lock canal and these locks tend to bar up-hill salt water movement. Buckman Lock is 80 miles from the Atlantic; and 9 years of constant monitoring show no intrustion past the lock into Lake Ocklawaha. While Inglis Lock is closer to the Gulf, U. S. Geological Survey reports and continual monitoring show the fresh water by-pass canal effectively recaptures and returns to the Gulf any saline waters locked up, even under most outlandish test conditions. Other Geological Survey investigations reflect no impairment of the Inglis well field.

WATERWAY POLLUTION PROSPECTS MINISCULE

Expert testimony during the 1973 Federal trial recounted and analyzed pollution experience on such other inland ways as the New York Barge Canal, in existence since 1825; the Ohio River system; the Tennessee Valley artery; the Illinois Waterway, and the newly developed Arkansas Waterway. In general, pollution from waterway traffic was minumal and of very low frequency and duration. Operating experience in river ports such as the Port of Sanford and the Putnam County Barge Port on the St. Johns, the Port of Catoosa on the Arkansas, and similar facilities, indicate no appreciable pollution problems.

Additional statements during the December 1976 Cabinet hearing revealed that Coast Guard records of inland waterway spills showed considerable advantage over land based modes. In 1975 there were 10,000 small oil spills. Only 600 came from inland waterways vessels; and the trend is down. That year, fuels and petroleum products accounted for 60% of the 240 billion ton-miles on the inland waterways; so there was an oil spill for about each .4 billion ton-miles. Twelve million tons of traffic the full length of the barge canal would account for 1.284 billion ton-miles per year. Theoretically, this should generate about 3 small spills per year. But petroleum products account for only 3%, not 60%, of the projected traffic. Hence, the canal, and especially the summit reach, should remain free of oil spills. Oil spills are probably the most easily controlled, contained, and corrected spill possibility.

Coast Guard data on hazardous cargoes are even more enlightening. During fiscal years 1972-75 inclusive, there were 47 accidents reported of barges transporting such cargoes. There was no loss of life; one injury; $423,000 monetary losses to barges; $724,000 losses to property; and $4,000 cargo loss. The only cargo loss reported was one barge carrying amonia urea in Alaskan waters. Barge and cargo were reported lost as result of a grounding. Leading cause of accidents were collisions with fixed objects such as bridges or piers.

The waterway probably carrying most chemical cargoes is the Houston Ship Channel over which 7,949,162 tons of chemicals moved in

calendar 1975 alone. Yet only two of the 47 incidents occurred on that project in the four-year period--with no loss of cargo. Similarly, the Mississippi River, also a heavy carrier of chemicals--3,965,688 tons in 1975--accounted for eight of the incidents--again with no loss of cargo. The Gulf Intracoastal Waterway west of New Orleans is another heavy chemical carrier. Eleven of the 47 incidents occurred on this project--again with no loss of cargo.

In summary, the factual statistics show:

(a) That the country can expect less than 12 accidents a year involving barges transporting hazardous cargoes.

(b) That approximately 98% of the accidents will result in No loss of cargo.

(c) That double hull barges required by the Coast Guard with respect to the more highly hazardous cargoes can be expected to prevent any loss of cargo.

(d) That monetary losses may very largely be expected to be confined to barge damage and damage to structures along the waterway.

But with the Cross Florida Barge Canal we can expect far safer operations. Navigation conditions on the CFBC will be vastly superior to those on the waterways where the 47 incidents occurred. The Houston Ship Channel is heavily traveled by all types of craft, including ocean-going vessels, among which the barges must mix. The Ohio River, on which 6 of the incidents occurred, is crossed by some 100 bridges of varying dimensions. Both the Ohio and the Mississippi are subjected to very strong currents, often at angles to the course of the vessel. Similar conditions obtain on the other projects involved.

The principal contributing factors to marine accidents on inland waterways include angular approaches to bridges or locks, narrow bridge clearances, low level bridges requiring opening, strong currents, unanticipated shoaling, and congestion. All approaches to locks and bridges on the CFBC will be straight and protected. No bridge piers will be in the waterway. No bridges will require opening. Currents are virtually nil. The project will not be subject to rapid shoaling as encountered on many streams and waterways carrying a bed load of sand. The volume of barge traffic forecast for the CFBC does not indicate any undue congestion.

Statistically, potential for hazardous cargo contamination in the CFBC is infinitesimal. The nation's inland waterways carried about 903 billion ton-miles during the four fiscal years 1972-1975; or some 19.2 billion ton-miles per accident. On the basis of those statistics, and discounting any favorable project characteristics, there could be

an incident about once every 15 years on the entire project. Considering only the 28-mile summit section, the frequency could approach once every 57 years--7 years beyond the projected life-time.

If, despite all precautions, and flying in the face of extreme improbability, a barge carrying 1,200 tons of sulphuric acid (87%) were severely damaged and lost all of its cargo in the summit reach of the canal, 21,429 cu. ft. of 87% acid would be released into approximately 273,715,000 cu. ft. of water. The percentage of sulphuric acid would be--before any pumping from the lower pools or any possible underground dispersion--0.068%, or less than seven hundredths of one percent. True, higher concentrations of the acid would prevail in the immediate vicinity for a short period; but dispersion into the entire pool easily could be accelerated by use of tow-boat propellers.

The Corps' traffic projections include no toxic cargoes.

A NON-CONSUMPTIVE WATER CONSERVATION PROJECT

U. S. Geological Survey studies indicate that for the long term, Florida's water supplies, especially in South Florida, require careful control to prevent dire shortages. St. Petersburg and Pinellas County already have experienced major problems. Tampa and the Miami areas have endured curbs on residential consumption during dry spells. Their search for augmentation sources sometimes have bordered on the panic-stricken.

The Corps' EIS and Restudy Reports, as brought out during the 21 April 1977 recall hearings, underscore the non-consumptive nature of

the project. There is no consumptive use by the three interior locks; three pumps recirculate the lockage water. Quantities of water discharged into the St. Johns via Rodman Dam and Buckman Lock would be same with or without project. Water released through Inglis Lock flows to tide water rather than down Withlacoochee River below canal intersection; but there would be no change in historic flows lost to tidewater. Each of three interior locks, with its pumping station, could accomodate maximum design lockage 100% of time; would use only one lockfull of water in perpetuity due to recycling.

With the canal project in being, during normal years the Oklawaha and Withlacoochee basins will discharge daily, into the St. Johns and the Gulf, an excess of about 1.3 billion gallons per day--over and above all other canal project and canal area requirements.

This unused fresh water excess, which is about 5½ times the reported municipal water supply demands for the entire state of Florida in 1970, could be made available to meet growing needs in water-short areas such as pinellas, as well as the other 18 South Florida counties.

Even during the statistical occurrence of a 25 year drought, this surplus still amounts to about 174 million gallons per day, or about 75% of the daily needs of the St. Petersburg metropolitan area.

The lakes and impoundments connected with the CFBC project have a total storage capacity of 35.5 billion gallons--sufficient in dire emergencies to provide South Florida with a supply of 200 million gallons of fresh water per day for about 6 months. We are concerned

that the Corps apparently has not considered these water storage benefits in its project evaluation.

There are those who disparage reservoirs, in contrast to aquifers, as water supply sources. Each has its advantages and disadvantages, depending upon circumstances. Reservoir supplies sometimes may require added treatment measures; aquifer sources often incur offsetting pumping costs. Both sources are used widely throughout the country and Florida. Part of Hillsborough County's water supply utilizes reservoir storage.

AQUATIC WEED CONTROLS ADEQUATE

Project opponents have assailed the canal reservoirs as awesome aquatic weed problem areas, and have assailed the Corps for failing to treat the problem adequately in its restudy reports. Lake Ocklawaha has become a particular target for abuse.

Pratically all Florida lakes and reservoirs suffer aquatic weed problems. Lakes Rousseau and Ocklawaha are no exception; but they (especially Lake Ocklawaha) do have control structures by which lake levels may be manipulated and weed control facilitated. Unfortunately high-level Inter-Departmental political pressures thus far have prevented the Corps from effecting any comprehensive reservoir manipulation program for weed control. Constant year in and year out water levels have encouraged spread of the weed hydrilla in both lakes.

The hydrilla in Lake Ocklawaha seems to have declined in

some areas, while spreading into others. Personal visit within the past ten days proved Lake Ocklawaha easier to navigate by small pleasure boat than any summer for the past several years. Lake Rousseau remains in much worse condition.

But wild life and serious fishermen consider hydrilla a boon to fishing--it provides cover, a complete food chain, and forage for more desirable species. Florida Game and Fresh Water Fish Commission biologists recently reached similar conclusions about the hydrilla impacts on nearby Orange Lake.

The Corps addressed aquatic weed issues explicitly in its final EIS, including detailed cost estimates based on its operating experience throughout Florida.

The Corps pointed out that their management did not contemplate removal (which was neither necessary nor desirable). They did propose to treat navigation channel, boat channels, and recreational areas with appropriate EPA approved herbicides. Cost estimates for the selected plan approximated $92,700 per year.

NO SIGNIFICANT ENDANGERED SPECIES IMPACTS

House Public Works Appropriation Sub-Committee Recall Hearings in 1977 delved deeply into rare and endangered species impacts. Corps witnesses acknowledged repeatedly the lack of any significant adverse impacts. This confirmed the data in the Corps' study, and clarified confusing implications in the language of report syllabi.

One plant, Dicerandra Frutescens, reportedly was found only along old canal berms and banks, and would be eliminated by canal construction, or reversion of lands to private ownerships. This was an unwarranted assumption and an inaccurate assessment.

The local sponsor's ecological consultant identified and located specimens a mile or more away from the old canal excavations. Several specimens have survived transplanting to other areas, including Jacksonville. Specimens are growing, today, on both margins of a paved secondary road and almost within eye-sight of I-75.

PROJECT A STABLIZER FOR SILVER SPRINGS

Project opponents, tacitly recognizing the fallacy of their assertions about impacts on South Florida water supplies, lately tend to seize upon conjectural impact on Silver Springs as their stalking horse.

Silver Springs lies a few miles north of the canal alignment which crosses a lobe of the Silver Springs drainage area. That overall drainage area extends northerly and westerly to include the City of Ocala and a dozen miles or more beyond. Operating water levels in part of canal reach through the Silver Springs drainage area will be slightly higher than the adjacent ground-water levels; hence there can be a slow water movement from the canal down gradient towards Silver Springs.

The Corps, throughout its studies, designs, and planning, has left no stone unturned in assuring the continued integrity of the Silver Springs attraction. They have designed the "go" alternatives so as to maintain Springs stages at levels sought by Silver Springs. The Silver Springs Corporation long ago advised that the most desirable operating stages in Silver Springs are:

Desirable operating range -	41.5 to 42.0 msl
Maximum level	42.5 msl
Minimum level	40.5 msl

The Corps' plan for operating Eureka Pool between 38' and 40' msl keeps the Springs within 41.5' to 42.0' range for the normal range of flows. These levels will, of course, vary under flooding conditions.

SILVER SPRINGS SAFE

Glen Faulkner, U. S. Geological Survey expert who supervised extended geo-hydrolic tests and monitoring operations, concluded that Corps' design and proposed operations were compatible with the area's ground-water regimen; and that if carried out as planned posed no threat to Silver or Rainbow Springs. His findings, and the Corps' designs, are founded upon data from numerous observation wells, some as far back as the early 30's, and upon the 300-odd test borings the Corps has made in the 27-mile summit reach alone. This averages about one boring every 500 feet.

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Incumbent State Geologist stated at the December 1976 Cabinet Hearing that this ground water issue was not anything significant enough to warrant deciding against the project. Some have professed concern that canal construction across a southeastern lobe of the Silver Springs drainage area might break through into some underlying cavernous openings and might subsequently allow rapid spread of polluted canal waters toward Silver Springs. Project antagonists have cited construction operations which purportedly beclouded the Weeki Wachee Springs attraction, and subteranean collapses during construction of Massaryktown and Tampa By-Pass Canals, as portents of excavation effects or possible impacts on Silver Springs. The affected locations are 40 to 90 miles distant from the canal project, with consequent geologic differences.

Weeki Wachee Springs advises that the attraction long has been back in service; that they settled their law suit for damages without going to trial. The Corps applied routine engineering techniques to handle the Tampa By-Pass and Massaryktown Canal situations, components of the Four Rivers Basin project. Both the affected areas are complete and in operation.

The Corps addressed these qualms at length in its EIS and reports. Corps plans provide for sealing off undesired or excessive outflow paths should any be revealed during construction.

The Corps has constructed hundreds of miles of canals through the Miami Oolite, a limestone formation even more porous than the higher

portions of the Floridan aquifer. Under the Central and South Florida Flood Control project, the Corps has built over a hundred dams, spillways, locks and other structures, and more than a thousand miles of canals and levees. Many of these canals are as wide or as deep as the Barge Canal. They entail extensive excavations into the shallow surface aquifers. The Corps reports no undue leakage or other ground water complications from all this construction.

Canal Summit excavation barely scratches the surface of the Floridan aquifer--penetrating only 12 to 27 feet into the Floridan's approximately 1000'-thick fresh water formation. And, while Florida does obtain much of its fresh water drinking supplies from the Floridan aquifer, any impacts, whether water level fluctuations or alterations in bio-chemical components, remain limited and constricted to a narrow localized band only three or four miles either side of the canal alignment.

As one of the contractor agencies under the Corps' environmental assessment programs, the Geological Survey drilled and conducted extended pumping tests with large diameter wells in two Summit section zones of possible outflow from the canal into adjacent aquifer strata. The wells extended several feet below design elevation of the canal bottom; but the rock materials were so "tight" and impervious that "drawdown" pump tests rapidly ran dry due to lack of water movement through the aquifer rock surrounding the wells (and, of course, the designed canal excavation).

The Geological Survey then extended the drilled wells far below the zone of canal excavation, and ultimately were able to run sustained pumping tests. The Survey concluded that there was little probability of material outflow from the canal; that any significant flow across the canal alignment would occur "via cracks, or fissures, far below strata contacted by canal excavation". Consequently, there was even less cause for concern than warranted by their previous negligible reservations. This development further strengthens the Federal Court judgement of January 31, 1974 which dismissed aquifer disruption as a valid complaint against the project.

The Florida State Geologist testified during the 1973 trial that only about 1% of the Silver Springs flow would come from, or pass through, the canal summit channel excavation. He predicated his calculations upon the U. S. Geological Survey 1970 "flow-net" analysis which had treated the top 100 feet of the aquifer as having homogeneous transmissivity properties. The pumping test average results indicate that the upper portion of the aquifer--the portion involving the summit channel excavation--has a transmissivity of only some 1/200 the averages used in the flow-net mathematical analysis. In other words, only about 5/100,000 of the Silver Springs flow should come from the canal cut.

Evidently, the more fractured and cavernous portions of the Floridan lie at or below the interface between the subordinate Avon Park and Ocala limestone formations. This interface lies well below the bottom of the summit excavation.

The Corps' Engineering report notes the very low hydrostatic head differentials between the summit water levels and levels in the two abutting outflow zones, one (4 miles long) leading to Silver Springs, the other (1½ miles long) towards the Withlacoochee River. Corps analyses indicate that these low-head differentials might obviate need for any remedial measures to control outflows.

The fine intergranular limestone in the summit outflow zones will function as effective filters to remove pollutant particles; and any pollutant already would be greatly diluted by the water retained in the summit pool. Consequently, impacts at surface discharge points would be infinitesimally minute.

Geohydrologic experts have pointed out that the City of Ocala utilizes vertical drain wells to discharge storm run-off directly into the underlying Floridan aquifer. These wells lie within the Silver Springs drainage basin; they penetrate the aquifer as deeply as the proposed canal excavation; they have been in operation for years. Yet, despite locally generated contaminations, they never have developed a measureable quantity of pollutant at Silver Springs.

As the Corps points out, operational procedures, in addition to continual monitoring provisions and vessel scrutiny, are ready to keep any harmful pollutants from Silver Springs. The Dunnellon and Dosh Lock water control valves would let the Corps draw the summit pool down by 8 feet and flush away pollutants inside of 15 hours; they could drain the summit pool from 48 feet, completely, within 39 hours, far short of

any flows progressing very far towards Silver Springs. Using the transmissivity rates evidenced by the Geological Survey's pumping tests, the flow velocity approximates 1.2 feet per day. The nearest point of outflow to Silver Springs is about 4 miles and the fartherest is about 6 ½ miles. Based on the velocity calculated above, it would require 1,760 days (about 5 years) and 2,860 days (about 8 years) respectively, for water to move from Summit Pool to Silver Springs.

NORTH REPORT NO PANACEA

Some project opponents have cited the so-called "North" report, Highest and Best Use Study, as the ultimate in assessing alternative uses of the Oklawaha Valley, and complain bitterly that the Corps did not swallow this report, hook, line and sinker. The Corps sets the picture straight in its Responses to Comments, pages C-59, C-395-396, and C-403-404, Final EIS. The Corps notes that:

> "The North report, in fact, explicitly disclaims the capability of assigning dollar value to environmental amenities such as the free-flowing, wild Oklawaha River....
>
> Both the North study and the Corps' Draft EIS recognize that a task of the political decision bodies is to make formal and explicit judgements about the goals desired. The difference between the two studies is that North is constrained by contractual agreement to subjectively weight "desired outputs", whereas the Corps presents scientific judgments of study contractors, relying on the political decision bodies to make judgments about the relative values of rivers, cansls, reservoirs, and river valleys in Florida and the nation in the last quarter of the 20th century (DEIS, Section 6)."

PROFILE OF ADULTS WHO SUPPORT
THE
CROSS-FLORIDA BARGE CANAL

Research Department
Florida Publishing Company
June, 1978

Price $10.00

DESCRIPTION OF SURVEY ON
OPINIONS ON PUBLIC ISSUES - NEWS MEDIA

AREA COVERED: Duval County or the City of Jacksonville, Florida.

PERIOD COVERED: Interviewing began on Monday, April 10, and ended on Friday, April 21, 1978.

RESPONDENTS: Adults (men and women aged 18 and over).

METHOD: Telephone interviews. Length of interview about 10-15 minutes.

SAMPLE DESIGN: Probability design, using random dialing to reach a specified number of adults in each telephone exchange and selecting one respondent from each household drawn into the sample.

SAMPLE SIZE: 803 adults surveyed. The demographic profile of these adults is very near the known population characteristics for all adults in the county, except young adults are under represented. Each adult surveyed represents 494 other adults. All but one of the respondents answered questions related to the Barge Canal.

INTRODUCTION

The Cross-Florida Barge Canal has been a very controversial waterway project for about a decade. During the often heated debate on the subject, there were calls for the fate of the canal to be decided by the voters. Many consider the fate of the canal already decided and that it will not be completed anytime soon if ever.

Much of the cost of right-of-way acquisition was paid for by the taxpayers of Duval County. There is no known record of what the residents of Duval County think about this waterway project.

In a telephone survey of adults in Duval County, respondents were asked to indicate whether they agree or disagree with two statements about the Cross-Florida Barge Canal. They are:

(1) The Cross-Florida Barge Canal should be completed.

(2) If the Cross-Florida Barge Canal is dismantled, Lake Rodman should be drained and restored.

OPINIONS ON CANAL

Based on this random, probability survey, 51 percent of the 396,200 adults in Duval County agree that the canal should be completed. One-third of the adults in the county feel strongly that it should be completed.

BARGE CANAL SHOULD BE COMPLETED

1. Agree	51%
a. strongly	34%
b. disagree	17%
2. Disagree	23%
a. somewhat	9%
b. strongly	14%
3. No opinion	26%

In Duval County there are more adults undecided than opposed to the canal. Only 14 percent of the adults are strongly in opposition to the canal.

Support for the canal is:

(1) Much more prevalent among established residents than people who have moved to Jacksonville in the last decade.

(2) Greater among men than women.

(3) Stronger among the older age groups (opposition is greatest among the 25-34 age group).

(4) Greater among persons with less than a college education and income below $10,000.

(5) Stronger among blacks than whites.

(6) Slightly greater among newspaper readers than non-readers.

OPINION ON LAKE RODMAN

There is a three way split on the question of draining Lake Rodman. One-third agree, one-third disagree and one-third of the 396,200 adults in Duval County are undecided. There are no sharp differences in opinion on this question among demographic groups.

DRAIN AND RESTORE LAKE RODMAN

1.	Agree	33%
	a. strongly	21%
	b. somewhat	12%
2.	Disagree	32%
	a. somewhat	11%
	b. strongly	21%
s.	No opinion	35%

PANAMA CANAL TREATY

In April when this survey was made, the U.S. Senate was debating the Panama Canal Treaty. Respondents were asked to indicate whether they agree or disagree with this statement: "The U.S. Senate should ratify the Panama Canal Treaty."

One-half of the 396,200 adults in Duval County are opposed to the treaty.

Slightly over one-fourth are in favor of the treaty and almost one-fourth of the adults have no opinion on this subject.

SENATE SHOULD RATIFY PANAMA CANAL TREATY

1. Agree	27%
a. strongly	13%
b. somewhat	14%
2. Disagree	50%
a. somewhat	13%
b. strongly	37%
3. No opinion	23%

It is interesting and informative to relate the opinions on the two canal questions. Those who oppose the treaty are slight more inclined to be in favor of completing the Barge Canal than those who support the Panama Canal Treaty. Almost half of the treaty supporters and 55 percent of its opponents want to see the Barge Canal completed.

RELATIONSHIP BETWEEN OPINIONS ON BOTH CANALS QUESTIONS

	Want Barge Canal		
Panama Canal	Completed	Stopped	Undecided
Support treaty	49%	32%	19%
Oppose treaty	55%	24%	21%
Undecided	41%	13%	46%

Table 1	Years of Residence				
		Under 10 Years		10 Years & Over	
Subject	Total	Number	Percent	Number	Percent
All Adults	396,200	101,300	26	294,900	74
Complete Canal					
Agree	199,600	38,000	19	161,500	81
Percent of Adults	50	38	-	55	-
Disagree	92,900	26,200	29	66,700	72
Percent of Adults	23	26	-	23	-
Drain Rodman					
Agree	130,900	35,100	27	95,800	73
Percent of Adults	33	35	-	32	-
Disagree	126,000	20,700	16	105,200	84
Percent of Adults	32	20	-	36	-

Components may not equal total because of no response to some quesions.

Table 2		Sex			
		Male		Female	
Subject	Total	Number	Percent	Number	Percent
All Adults	396,200	195,600	49	200,600	51
Complete Canal					
Agree	199,600	104,200	52	95,300	48
Percent of Adults	50	53	-	48	-
Disagree	92,900	60,300	65	32,600	35
Percent of Adults	23	31	-	16	-
Drain Rodman					
Agree	130,900	59,800	46	74,100	54
Percent of Adults	33	31	-	35	-
Disagree	126,000	87,900	70	38,000	30
Percent of Adults	32	45	-	19	-

Components may not equal total because of no response to some questions.

Table 3		Age									
		18-24		25-34		35-44		45-64		65 & Over	
Subject		Number	%	Number	%	Number	%	Number	%	Number	%
All Adults	396,200	51,400	13	100,300	25	57,800	15	132,900	34	53,400	14
Complete Canal											
Agree	199,600	25,200	13	44,500	22	31,600	16	66,200	33	32,100	16
Percent of Adults	50	49	-	44	-	55	-	50	-	60	-
Disagree	92,900	9,900	11	31,600	34	13,800	15	29,100	31	8,400	9
Percent of Adults	23	19	-	32	-	24	-	22	-	16	-
Drain Rodman											
Agree	130,900	15,800	12	36,100	28	21,700	17	40,500	31	16,800	13
Percent of Adults	33	31	-	36	-	38	-	30	-	31	-
Disagree	126,000	16,800	13	32,100	25	15,800	13	48,400	36	12,800	10
Percent of Adults	32	33	-	32	-	27	-	36	-	24	-

Components may not equal total because of no response to some questions.

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Table 4 Marital Status

Subject	Total	Married		Widowed		Divorced/Separated		Single	
		Number	%	Number	%	Number	%	Number	%
All Adults	396,200	276,600	70	28,200	7	45,400	12	45,400	12
Complete Canal									
Agree	199,600	136,800	69	15,300	8	23,200	12	24,200	12
Percent of Adults	50	49	-	54	-	51	-	53	-
Disagree	92,900	67,200	72	4,400	5	9,900	11	11,400	12
Percent of Adults	23	24	-	16	-	22	-	25	-
Drain Rodman									
Agree	130,900	87,900	67	12,800	10	17,300	13	12,800	10
Percent of Adults	33	32	-	46	-	38	-	28	-
Disagree	126,000	89,900	71	5,900	5	11,900	9	18,300	15
Percent of Adults	32	33	-	21	-	26	-	40	-

Components may not equal total because of no response to some quesions.

Table 5 Educational Attainment

Subject	Total	8th Grade or Less		Part High School		High School Graduate		Part College		College Graduate	
		Number	%	Number	%	Number	%	Number	%	Number	%
All Adults	396,200	41,000	10	50,400	13	139,300	35	88,400	22	75,100	19
Complete Canal											
Agree	199,600	22,700	11	27,700	14	71,700	36	47,400	24	29,100	15
Percent of Adults	50	58	-	55	-	51	-	54	-	39	-
Disagree	92,900	3,500	4	7,400	8	29,100	31	21,200	23	30,600	33
Percent of Adults	23	9	-	15	-	21	-	24	-	41	-
Drain Rodman											
Agree	130,900	12,800	10	14,300	11	47,400	36	31,600	24	23,700	18
Percent of Adults	33	33	-	28	-	34	-	36	-	32	-
Disagree	126,000	9,400	7	16,800	13	42,000	33	27,200	22	29,100	23
Percent of Adults	32	24	-	33	-	30	-	31	-	39	-

Components may not equal total because of no response to some questions.

Table 6	Annual Family Income						
		Under $10,000		$10,000-$20,000		Over $20,000	
Subject	Total	Number	$	Number	%	Number	%
All Adults	396,200	99,300	25	165,500	42	94,800	24
Complete Canal							
Agree	199,600	57,300	29	81,500	41	43,500	22
Percent of Adults	50	58	-	49	-	46	-
Disagree	92,900	13,300	14	38,500	41	33,600	36
Percent of Adults	23	13	-	23	-	35	-
Drain Rodman							
Agree	130,900	35,100	27	59,300	45	28,700	22
Percent of Adults	33	35	-	36	-	30	-
Disagree	126,000	23,200	18	50,900	40	39,000	31
Percent of Adults	32	23	-	31	-	41	-

Components may not equal total because of no response to some questions.

Table 7		Race			
		White		Black	
Subject	Total	Number	Percent	Number	Percent
All Adults	396,200	316,200	80	74,600	19
Complete Canal					
Agree	199,600	152,200	76	45,000	23
Percent of Adults	50	48	-	60	-
Disagree	92,900	85,500	92	6,400	7
Percent of Adults	23	27	-	9	-
Drain Rodman					
Agree	130,900	103,200	79	26,200	20
Percent of Adults	33	33	-	35	-
Disagree	126,000	107,700	82	16,800	13
Percent of Adults	32	34	-	23	-

Components may not equal total because of no response to some questions.

Table 8 Newspapers Read in Past Week

Subject	Total	Sunday TU/JJ Number	%	Saturday TU/JJ Number	%	Daily TU Number	%	Daily JJ Nubmer	%	Non-readers Number	%
All Adults	396,200	320,100	81	290,000	73	288,000	73	147,700	37	26,200	7
Complete Canal											
Agree	199,600	163,000	82	151,700	76	151,200	76	70,100	35	12,800	6
Percent of Adults	50	51	-	52	-	52	-	47	-	49	-
Disagree	92,900	77,100	83	70,600	76	69,200	74	40,500	44	3,952	4
Percent of Adults	23	24	-	24	-	24	-	27	-	15	-
Drain Rodman											
Agree	130,900	105,700	81	95,800	73	94,800	72	46,400	35	8,400	6
Percent of Adults	33	33	-	33	-	33	-	31	-	32	-
Disagree	126,000	107,700	85	95,300	76	93,300	78	51,400	41	4,900	4
Percent of Adults	32	34	-	33	-	34	-	35	-	19	-

Components may not equal total because of no response to some questions.

SUWANNEE RIVER

Florida - Georgia

National Wild and Scenic River Proposal

Bureau of Outdoor Recreation
Southeast Region
810 New Walton Building
Atlanta, Georgia 30303

MARCH 1971

The State of Florida has recently purchased the entire 2,260 acres of land encompassing the Ichetucknee Springs and spring run north of the U.S. Highway 27 bridge.

Land Requirements

The plan for acquisition is based on the following assumptions:

1. Sufficient lands and interests in lands will be acquired by the Federal Government to assure the integrity of the river as an operable unit and to protect those features which warrant its inclusion in the National Wild and Scenic Rivers System. Fee acquisition will be confined to the acreage needed to provide public access and services and to protect the river and resource values which might be jeopardized by less-than-fee control. Emphasis is given to protecting the natural environment by scenic and public use easements, zoning, and other agreements. All riverside lands within a corridor varying from 100 to 300 feet wide on each side of the river will be protected by easements, zoning or fee acquisition.

2. Portions of cities and villages included within the boundaries will be given the opportunity to adopt valid zoning ordinances which accomplish the purposes of the Wild and Scenic Rivers Act before lands within their jurisdiction are acquired by other means. The administering agency will reserve the right to acquire in fee or by easement any lands which are developed or used in violation of approved zoning regulations.

3. Flood plain, estuaries, and other protective zoning by local entities and the States of Georgia and Florida will be encouraged to provide additional control and protection throughout the river area. In addition, zoning can provide a buffer zone beyond national wild and scenic rivers boundaries and thereby increase the overall attractiveness of the river area.

Fee Acquisition

The Wild and Scenic Rivers Act stipulated that the lands in a federally administered component may not exceed an average of 320 acres per mile and that no more than an average of 100 acres per mile may be acquired in fee.

The total of all fee acquisition and easement lands included in the proposed Suwannee National Wild and Scenic River is 26,553 acres. The recommended fee title lands total 16,253 acres, an average of 58.6 acres per mile. Considering 6,451 acres of land now in public ownership, 9,802 additional acres are proposed for fee acquisition. These figures exclude the 28.5 miles within the Okefenokee National Wildlife Refuge where there is no definable riverbank and most lands are submerged.

Scenic Corridor

The land use on a total of 10,300 acres is proposed to be controlled by acquiring scenic easements or other agreements from the private landowners.

Easement Zones--Each of the river segments has characteristics which require differing degrees of protection. The easement acquisition guidelines for each river segment are:

1. Wild Section

Source to sill at river mile 238. Adequate protection is provided by existing Federal ownership and management by the Bureau of Sport Fisheries and Wildlife.

2. Scenic Section

River mile 238 to Florida Highway 6 at river mile 197.
No new development or timber harvesting within 200 feet of the riverbank would be permitted within this easement zone. State or local zoning controls are desirable for the remainder of the flood plain to assure that the river environment is protected.

River Mile 197 to White Springs at River Mile 170
The preservation of this section of the river is complicated by the potential presence of the underlying commercial deposits of phosphates. The high banks in this river reach greatly reduce the area visible from the river surface. A protective easement corridor of 100 feet on each bank is recommended--all of which would be restricted against mining and new development. Timber cutting would be prohibited in the first 50 feet on each bank with selective cutting allowed on the remaining 50-foot strip.

River Mile 170 to Ellaville at River Mile 127
A 100-foot easement is recommended on the south bank with all timber cutting restricted in the first 50 feet back from the crest of the bank and selective cutting in the remaining 50 feet. A maximum easement width of 300 feet with restrictions on cutting of timber, construction of new buildings and other improvements, and with provisions for public use of a proposed trail is recommended on the north bank. No timber cutting or new development would be permitted in the first 100 feet back from the north riverbank.

River Mile 127 to Little River Springs at River Mile 81
Easements for a maximum width of 200 feet on both sides of the river are recommended in order to protect natural conditions. New building setback requirements will be 100 feet back from the bank crest with no timber cutting in this zone. Selective development and cutting would be allowed in the remainder of the easement zone.

3. Recreational Section

River Mile 81 to River Mouth (River Mile 0)
A minimum easement width of 100 feet on both sides of the river is recommended to control the quality of development. Easement width should be increased to a maximum of 300 feet in flood plain areas subject to annual flooding. All dredge and fill operations should conform with the basic objective of protecting special river values. New buildings and other improvements will be set back a minimum of 100 feet from the riverbank except for marinas and similar types of facilities which are included in the master plan. Timber cutting will be prohibited within the first 100 feet.

4. Wild Section

Ichetucknee River From Powerline Crossing North of U.S. Highway 27 to Ichetucknee Springs
Adequate protection is provided by existing State of Florida ownership and management.

5. Recreational Section

Santa Fe From Confluence With Suwannee River to Ichetucknee River and up Ichetucknee River to Powerline Crossing North of U.S. Highway 27 Bridge.
Same easement guidelines as River Mile 81 to River Mouth (No. 3 above).

Easement Acquisition Criteria--Control and protection of lands adjoining the river through scenic easements or other agreements with individual private landowners will entail extensive negotiation.

Both the landowners' interests and protection of the public values will have to be balanced taking into consideration the special site characteristics of each tract. The following general criteria shall apply in negotiating easement and other agreements:

1. Landowners will be allowed access to the river subject to the specific conditions of the easement.

2. Riverbanks to the initial crest of the slope and islands will be maintained in a natural condition.

3. No trees or other vegetation will be removed from the slopes of the riverbanks except where necessary for public safety, to provide selective vistas, or reestablishment of more desirable plant cover. Such action would require prior approval and would be in accord with the master plan.

4. Clear cutting would not be permitted closer than 50 feet from the initial bank crest (or 100 feet of the normal water's edge if there is no defined crest). The objective is to preserve the natural scene as viewed from the river surface as shown on the sketch on page 114.

5. The public will not be excluded from any portion of the river surface.

6. Public use of the privately owned riverbank will be permitted only where authorized by the landowner.

7. Existing buildings if compatible with overall objectives will be allowed to remain, subject to adequate maintenance by the owner.

8. No new buildings or other improvements will be allowed within 50 feet of the initial bank crest except for appropriate developments such as boat ramps or marinas authorized by permit.

9. Sanitation methods will, as a basic minimum, protect existing water quality. In some cases existing facilities must be improved. All new installations must meet or exceed the objectives of maintaining a high quality environment that is safe for public use.

10. Existing roads, both public and private, being used for property and river access will generally be allowed to remain. Specific requirements for the protection of the river through a reasonable restriction of access points will be developed and shown in the master plan.

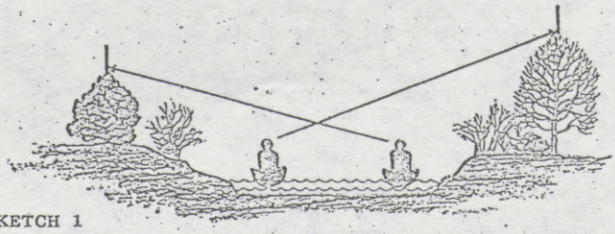
11. New roads or realignment of existing roads will be constructed within the river boundary only in accordance with the master plan.

12. Each easement will be negotiated with the individual landowner and full consideration of the relationship of the individual property to the river and use of adjacent property will be taken into account.

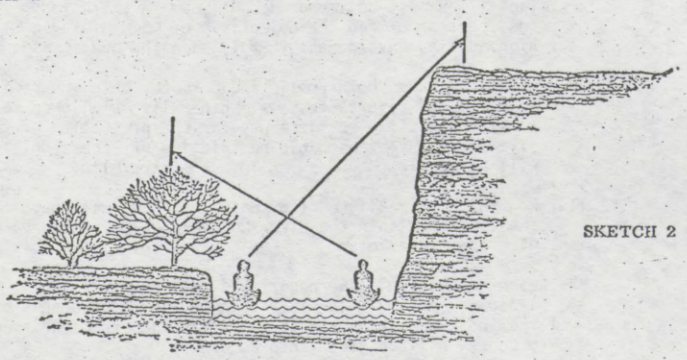
13. Private landowners may, at their option, refuse to give or sell easements on their lands and request Federal fee title acquisition of their property as an alternative. Where appropriate, these sales can provide for leaseback, sell back and life tenancy provisions.

Local and State Zoning

Zoning ordinances can be an effective means of protecting the river in lieu of acquiring easements or purchasing land from individual owners. The Wild and Scenic Rivers Act encourages local governments to actively participate in the wild and scenic rivers program which, at the same time, would reduce the need for fee title and easement acquisition. State zoning actions are not common but, where a resource such as a river extends through a number of local jurisdictions, such action may be appropriate. In at least one instance, the Allagash Wilderness Waterway in Maine, State zoning has been an important element for protecting the special values of a component of the National Wild and Scenic Rivers System.



SKETCH 1



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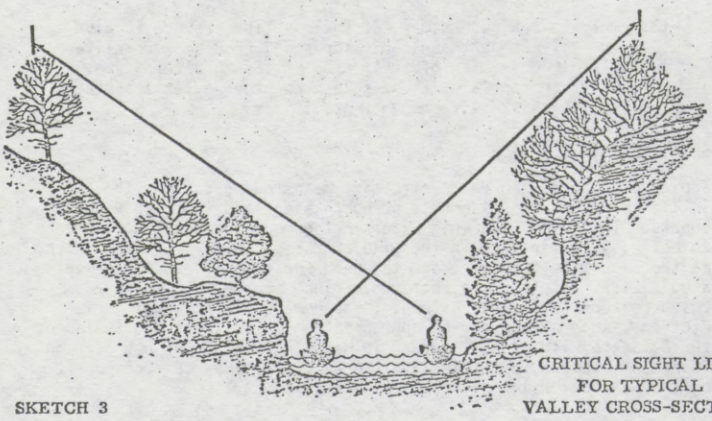

SKETCH 3

CRITICAL SIGHT LINES
FOR TYPICAL
VALLEY CROSS-SECTIONS

INVENTORY OF POTENTIAL NATIONAL WILD AND SCENIC RIVERS IN THE FLORIDA PENNINSULA

SOUTHEAST REGIONAL OFFICE
BUREAU OF OUTDOOR RECREATION
ATLANTA, GEORGIA

AUGUST 1975

INTRODUCTION AND BACKGROUND

The purposes of this inventory of rivers in the Floridian section of the Atlantic Coastal Plain have been: first, to test a methodology and criteria for systematic and objective evaluation of rivers as potential candidates for preservation in the National Wild and Scenic Rivers System, and second, to perform such an evaluation in this physiographic section as part of a comprehensive nationwide effort to identify and protect those rivers having highest priority for inclusion in the National Wild and Scenic Rivers System.

The following discussion explains the needs which led us to develop this system of evaluation. The chapter entitled "Summary and Results" presents the results of the pilot evaluation in this physiographic section, and the chapter entitled "Description of the Pilot Study"explains the actual work that was done, and discusses the methodology of the system, pointing out some of its strengths and weaknesses. Chapter IV presents part of the actual data collected in the progress of the study. Critical comments on the study methodology are welcome.

The Wild and Scenic Rivers Act calls for preservation of the Nation's free-flowing rivers that have "outstandingly remarkable scenic, recreational, geologic, fish and wildlife, historic, cultural, or other similar values." The Nationwide Outdoor Recreation Plan calls

for the Federal Government to "complete a program of identification and selection and a plan for acquisition of those superlative areas needed to round out the Federal recreation estate." Our resources for studying and protecting wild and scenic rivers are limited. Consequently, it is vital to develop a process now to identify a minimum system of the best rivers or river segments and to develop a sound and convincing basis on which to establish priorities for their study and protection.

Our goal is to identify a minimum national system of wild and scenic rivers (both State and federally administered) that will consist of a balanced representation of the full diversity of physiographic classes (young mountain, coastal swamp, entrenced plateaus, etc.) among the Nation's rivers. Component rivers should also, with their immediate environments, represent the most superlative of the scenic, recreational, geologic, fish and wildlife, historic, cultural, or other similar values associated with the Nation's unspoiled rivers.

In order to be sure that these superlative rivers or segments of rivers are identified and selected objectively, criteria are necessary. Criteria already exist for the National Wild and Scenic Rivers System, but a review of these criteria shows that they are not comprehensive enough, not objective enough, and/or do not identify the minimum national system or define when the system is adequate.

The existing six criteria for national wild and scenic rivers are established by the 1968 Act and subsequent guidelines agreed on by the Secretaries of the Interior and Agriculture. They require that a river be free-flowing, long enough to provide a meaningful experience (in general, at least 25 miles) have clean water capable of supporting fish and wildlife, have sufficient volume of water during normal years to provide water-based recreation during the average recreation season, have shorelines free of intensive development (although agricultural use and small communities or dispersed residential development is permissible), and have one or more of the outstandingly remarkable values previously listed.

These criteria are useful for eliminating obviously unfit rivers from consideration for the National System, but they do not establish when the Federal recreation estate will be "rounded out" with respect to rivers and they do little to eliminate subjective judgments with respect to what constitutes "outstandingly remarkable" values.

There is an urgent need, therefore, for criteria which will define the minimum national system and identify by a reasonably accurate and objective evaluation, those most outstandingly remarkable of the Nation's rivers, giving equal consideration to all types of rivers. However, due to the abundant natural diversity among our rivers, it is impossible to develop a single, definitive set of criteria that will provide this identification without simultaneously biasing the national system. That is, a set of tailored, concrete criteria can be developed for national rivers if we are prepared to declare,

for example, that young mountain rivers in a natural state better represent the concept of a national wild river than do piedmont rivers in a natural state, or that western rivers are better representatives than eastern rivers, etc. However, to make such assumptions, in an effort to design a highly simplistic and convenient implementation methodology, would represent a subjective and unacceptable compromise of the concept of the National Wild and Scenic Rivers System as a select group of free-flowing streams representative of the broad scope of character and diversity of all those natural river resources which helped shape the American experience.

Therefore, we have developed and tested in this pilot study, a system of river evaluation which includes both a statement of goals, criteria, and a methodology. We believe that this system is practical, and that it does meet the need for a definition of the minimum National Wild and Scenic River System and an objective and efficient method of inventorying candidate rivers and identifying not only those that meet minimum standards, but those having the most outstanding natural and recreational values and therefore, the highest priority for protection with the limited funds available.

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SUMMARY OF RESULTS

The pilot study inventory of rivers in the Floridian section of the Atlantic Coastal Plain met both its goals of testing the evaluation system and methodology and of producing a ranked list of those rivers in the section which met the criteria of the act.

The methodology proved to be practical, and through its application, the 29 rivers totaling 1,827 miles initially listed for consideration were reduced through the screening process to the best segments of five rivers--a total of 288 miles of river of "A" priority for preservation because of high values in fish and wildlife, recreation, water quality, and natural vegetation. These segments of rivers are of approximately equal quality in the objective measurements of degree of development, fish and wildlife values, water quality, and recreation potential. They differ in factors such as vegetation type, size, flow, and other characteristics which were not considered as ranking factors at this time.

The following list is of "A" priority river segments:

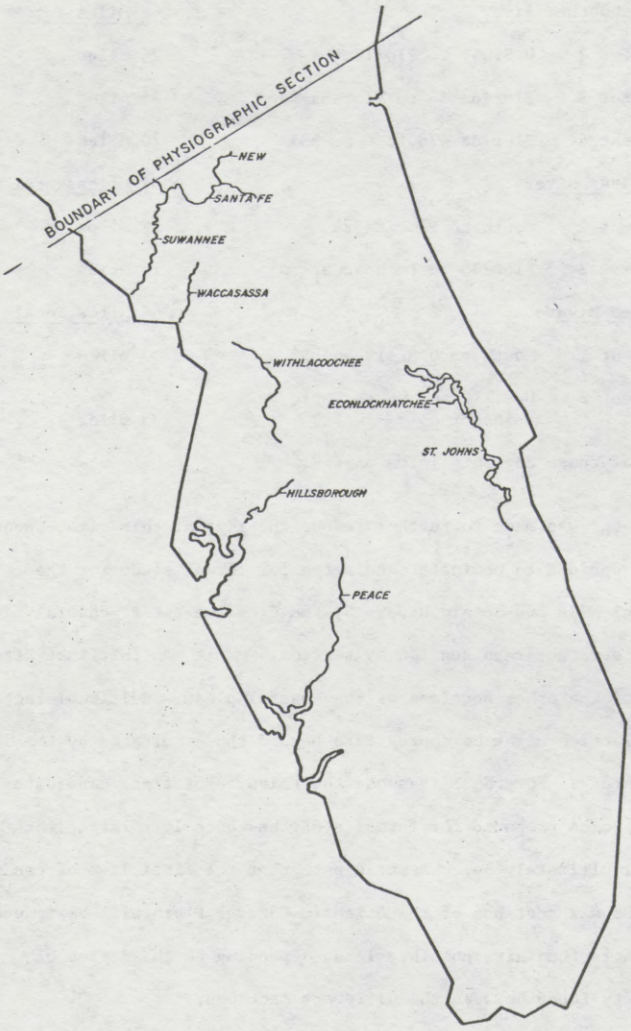
Peace River		76 Miles Total
Segment 1	mouth to Florida 70	31 miles
Segment 2	State Route 70 to Florida 64	10 miles
Segment 3	State Route 64 to Florida 630 and U.S. 98	35 miles
Hillsborough River		40 Miles Total
Segment 2	Florida 582A to U.S. 301	24 miles
Segment 3	U.S. 301 to headwaters	16 miles

Withlachoochee River		69 Miles Total
Segment 2	U.S. 41 to Florida 44	24 miles
Segment 3	Florida 44 to Florida 476	25 miles
Segment 4	Florida 476 to U.S. 301	20 miles
Waccasassa River		37 Miles Total
Segment 1	mouth to Florida 24	22 miles
Segment 2	Florida 24 to headwaters	15 miles
Suwannee River		66 Miles Total
Segment 1	mouth to U.S. 19 and 98	33 miles
Segment 2	U.S. 19 and 98 to Sante Fe junction	33 miles

A map of these segments is on page 7.

No attempt was made to further reduce the list at this time, because it was decided to nominate candidates for formal study for the National Wild and Scenic Rivers System from the entire coastal plain province rather than section by section. It was felt that after study of the other sections of the coastal plain, additional factors for selection might be appropriate beyond those surfaced by the pilot study. For these reasons, the universe of final candidate rivers to be proposed for formal study has been left larger than it will ultimately be. We anticipate that the final list of candidates from the six sections of the Atlantic Coastal Plain will be reduced to no more than six, possibly less, depending on the degree of diversity found between the different sections.

Two other rivers or segments thereof are also deemed to meet the basic criteria of the Act, but are classed as priority "B" for



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RIVERS REMAINING UNDER CONSIDERATION

purposes of the National Wild and Scenic Rivers System. The potential for general recreation activities on the upper St. Johns is limited but its fish and wildlife values are important enough that we felt they would be more suitably preserved in a refuge or game management system than in the Wild and Scenic Rivers System. The Econlockhatchie, segment 1, is too short to qualify by itself, but it could be considered for protection in some system along with the upper St. Johns into which it empties.

The list of "B" priority rivers segments is as follows:

St. Johns River		59 Miles Total
Segment 5	top of Lake Harney to State Route 50 bridge	23 miles
Segment 6	State Route 50 bridge to State Route 520	24 miles
Segment 7	State Route 520 bridge to Lake Winder	12 miles
Econlockhatchie River (St. Johns tributary)		21 miles Total
Segment 1	mouth at St. Johns to Florida 419	21 miles

Two additional rivers were found to meet most of the basic, objective criteria of the Act, but to be of "C" priority for preservation in the National Wild and Scenic Rivers System because of relatively high development, significantly lower natural resource values, or recreation potential than the streams ranked in the "A" and "B" levels of priority.

The "C" priority list is as follows:

Santa Fe (Suwannee tributary)		54 Miles Total
Segment 1	mouth to sinks in O'Leno State Park	39 miles
Segment 2	sinks to Florida 121	15 miles
New River (Sante Fe tributary)		15 Miles Total
Segment 1	mouth to Florida 100	15 miles

A detailed description of the process of evaluation and the criteria responsible for elimination of various rivers from further consideration is given in the section of this report on "Description of the Study Process." This section also contains a summary of the data collected on the rivers which were visited in the field or examined from an airplane.

DESCRIPTION

Phase 1 - Inhouse Data Collection, Analysis and First Cut

The first step in this part of the study was the completion of a fairly simple form describing in general terms all rivers and streams in the Southeast Region of approximately 25 miles or more in length. Although maps of various scales were consulted, we found the best starting points to be the Atlas of River Basins of the United States, Second Edition, June 1970, U.S. Department of the Interior, Soil Conservation Service, and the map Physical Divisions of the United States, Nevin M. Fenneman in cooperation with the Physiographic Committee of the Geological Survey, Edition of 1946. A map wheel was used to give a rough measure of stream lengths (margin of error in some cases probably approached 20 percent).

The total length of streams in the Floridian Section (3c) of the Coastal Plain physiographic province was 1,827 miles (see list on page 11 and map of page 13). These streams were further described as to whether or not they were designated in the national or State scenic rivers study programs, their location, special characteristics, public or private ownership, whether dammed, channelized, or having other water projects. Sources of information included the SCORP, Soil Conservation Service and Corps of Engineers project reports and maps.

On the basis of information obtained, those rivers described as channelized or as canals were dropped from further consideration.

The area south of Lake Okeechobee was found to be characterized by sheet flow throughout much of the year rather than well defined rivers and this area was not, therefore, included in the pilot study area.

Rivers Under Phase I Consideration in Evaluation

Rivers in Physiographic Area 3C More Than 25 Miles Long

River	Approximate Length
1. St. Johns	240
2. Black Creek	35
3. Rice Creek	30
4. Oklawaha River	65
5. Orange Creek	17
6. Econlockhatchie River	63
7. Kissimmee	137
8. Arbuckle Creek	29
9. Fisheating Creek	61
10. Caloosahatchee	75
11. Peach River	91
12. Horse Creek	58
13. Shell Creek	49
14. Myakka River	59
15. Manatee River	35
16. Little Manatee River	47
17. Alafia River	71
18. Hillsborough River	60
19. Withlacoochee River	142
20. Waccasassa River	37
21. Suwannee River	66
22. Santa Fe River	110
23. New River	30
TOTAL	1,607

Rivers Not 25 Miles Long, But Evaluated Because of Reported High Scenic Quality

24. Wekiva and Rock Springs (St. Johns tributary)	23
25. Loxahatchee	12
TOTAL	35

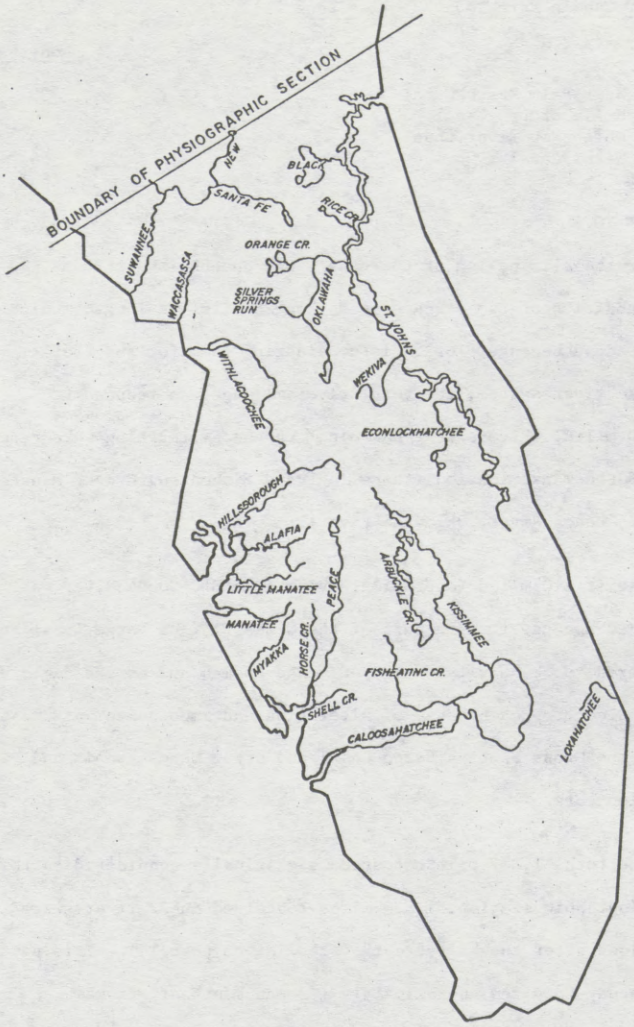
River Canals More Than 25 Miles Long

River	Length
26. West Palm Beach Canal	35
27. Hillsborough Canal	40
28. North New River Canal	50
29. Miami Canal	60
TOTAL	185
GRANT TOTAL	1,327

After the elimination of the canals and channelized streams and the addition of two streams less than 25 miles in length, which were added because Florida is considering them for the State scenic river system, the total river mileage was reduced to 1,660 miles. Rivers that had minor channel alteration were retained for further examination (these included Fisheating Creek, Manatee River, Peace River, Oklawaha River).

The lower 110 miles (approximately) of the St. Johns River was dropped because it is a part of the Cross Florida Barge Canal and appeared to be heavily developed. The Rodman and Eureka dam areas were also dropped because of alteration and impoundment associated with the Cross Florida Barge Canal and other Corps canals and developments.

Of the total 1,827 miles of streams originally considered in this physiographic section, 1,335 miles contained in 22 rivers were retained after the "first cut" (see list on page 14). This part of the study required approximately 1/2 man month of effort.



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RIVERS EVALUATED IN PILOT STUDY

Rivers Remaining Under Consideration After Phase I Cuts

River	Length (miles)
1. St. Johns River (above Palatka)	174
2. Black Creek (St. Johns tributary)	35
3. Rice Creek (St. Johns tributary)	30
4. Oklawaha River (St. Johns tributary)	65
5. Orange Creek (St. Johns tributary)	17
6. Wekiva River (St. Johns tributary)	23
7. Econlockhatchie River (St. Johns tributary)	63
8. Fisheating Creek	61
9. Peace River	91
10. Shell Creek (Prairie Creek and Charlie Creek) (Peace tributary)	49
11. Horse Creek (Peace tributary	58
12. Myakka River	59
13. Manatee River	35
14. Little Manatee River	47
15. Alafia River	71
16. Hillsborough River	60
17. Withlacoochee River	147
18. Waccasassa River	37
19. Suwannee River (below Santa Fe junction)	66
20. Santa Fe River (Suwannee tributary)	110
21. New River (Santa Fe tributary)	30
22. Loxahatchee River	12
TOTAL MILEAGE	1,335

In the second step of this phase, the remaining rivers were divided into convenient segments to facilitate the more detailed examinations to follow. It was desired to have segments not longer than 50 miles, of relatively uniform characteristics and for this purpose a 1:250,000 scale map was used. Wherever possible segmentation was based on physical changes in river characteristics. Information noted at this stage from available material included river size as recorded at gauges, location of road and rail crossings or parallel roads, utilities, parks, access areas, degree or urban and other development, changes in stream character, i.e., well defined streams, braided channels, lakes and pools, etc., and vegetation types such as hardwood swamps,

coastal marshes, fresh water prairies, etc. A brief narrative description of each segment was prepared for use in the aerial photograph survey and for comparative evaluation of source material. Data sheets were established for each segment. A sample data sheet is on page 16. Gauge locations were mapped and flow information was put on the data sheets. Data were obtained from the Geological Survey Annual Report, Water Resource Data for Florida, Surface Water Records, Volume 1, Streams - North and Central Florida.

The regional office of the Environmental Protection Agency was contacted for water quality criteria and use classifications for Florida. All streams under consideration were found to be classified Class III--recreation and propagation and management of fish and wildlife. Further information on actual water quality problem areas was obtained from State water pollution control plans as required under section 106 of the Federal Water Pollution Control Act Amendments of 1972.

Concurrently, a visit was made to the State capitol where staff members of the Department of Natural Resources responsible for the State scenic rivers program were briefed on the project and invited to participate. Subsequent stages of the study requiring the assistance of State agencies were brought up with the State Game and Fresh Water Fish Commission, the State Department of Transportation, and with the U.S. Geological Survey office in the State capitol. In this case, the assistance of each agency was cheerfully provided even though their direct participation in the field work was not possible.

Proposed Wild & Scenic River Segment Evaluation Form

Physiographic Section:_____ River:_____ Section No:_____ River No:_____
Segment Begins at River Mile:_____ Ends at Mile:_____ Map References:_____ Scale:_____ Segment No:_____ Length:_____ miles
Percent of River Frontage (both sides) Publicly owned:_____%, Average Segment Gradient:_____ feet per mile

POINTS

HYDROLOGY

*Adequacy of Flow to Sustain Recreation During River Recreation Season (good = 3, fair = 2, poor = 1): ( )

*Discharge (in cubic feet per second for period of record)

(✓) Measure ( ) or Estimate ( )

	CFS	Month
Mean Annual	( )	
Low Monthly Mean during season	( )	( )
High Monthly Mean during season	( )	( )

Low Monthly Mean ÷ Mean Annual CFS = (0.)

WATER QUALITY (✓ one)

A. Drinking ( ) C. Fish & Wildlife ( )
B. Primary Contact ( ) D. Polluted: Natural ( ) Unnatural ( )

LAND-USE CHARACTERISTICS

*Percent of Corridor in Natural State (%)

*Percent of Corridor Disturbed (%) (excluding roads, rr, utilities, channel alt.)

Type of Disturbance Predominance: (indicate most = (3), high = (2), mod. = (1)

Pasture	( )	Development	
		Industry/Com.	( )
Cleared Land		Mining	( )
Row Crop	( )	Feed Lot	( )
Other	( )	Residential	( )
		Recreation	( )
		Other	( )

*Percent of Shoreline Miles Disturbed by Parallel Roads (all except 4WDR.), Railroads, Utilities, Channel Alt.: (%)

*Number of Crossings (Bridges, Fences, Utilities, Fords): ( )

*Number of Low Dams: ( )

POINTS

HISTORIC & CULTURAL RESOURCES

*Historic Sites

Nationally Registered (No.)

Official State Sites (No:)

*Prehistoric & Anthropologic (No:)

RIVER RECREATION RESOURCES

*River Dynamics (✓ one or more) Presence During Major - boating season:

Class		Predominant	Common	Few
A-B	Flatwater	( )	( )	( )
I-II	Riffles	( )	( )	( )
III	Small Rapids	( )	( )	( )
IV	Med. Rapids	( )	( )	( )
V+	Large Rapids	( )	( )	( )

*Recreation Uses (list below & continue on narrative)

Existing or Potential	Little or No Potential

ZOOLOGICAL RESOURCES

*Threatened or Endangered Species (From Official National List)

Number of Species Present: ( )

*Wildlife Species Representation: (✓ one or more)

	Abundant	Common	Uncommon
Big Game	( )	( )	( )
Small Game	( )	( )	( )
Furbearers	( )	( )	( )
Waterbirds & Waterfowl	( )	( )	( )
Game birds	( )	( )	( )

Presence of Other Wildlife Species of Public or Scientific Interest
No. of Species: ( )

POINTS

*Fish Species Representation: (✓)

	Abundant	Common	Uncommon
Estuarine	( )	( )	( )
Anadromous	( )	( )	( )
Cold Water	( )	( )	( )
Warm Water	( )	( )	( )

Sport Fishery Resources Quality (✓)

Good ( ) Fair ( ) Poor ( )

Presence of Other Fish Species of Public or Scientific Interest:
No. of Species: ( )

BOTANICAL RESOURCES: (For That Portion of The Corridor Previously Noted to be (Natural)

*Threatened or Endangered Species (From Official List)
Number of Species Present: ( )

*Plant Species Representation (describe on narrative form representative plant species by river corridor zone within this physiographic section & (✓) below)

Corridor Zone	Natural & Typical	Slightly Altered	Severely Altered
Outer Corridor	( )	( )	( )
Riparian	( )	( )	( )
Aquatic	( )	( )	( )

PHYSIOGRAPHIC RESOURCES: (Refer to list of landforms, river-forms, & geologic structures. Note those & others if present)

Common or Unique Features in This Phys. Section	CORRIDOR	ENTIRE	Presence (✓) Many	Some	Few
	( )	( )	( )	( )	( )
	( )	( )	( )	( )	( )
	( )	( )	( )	( )	( )
	( )	( )	( )	( )	( )
	( )	( )	( )	( )	( )
	( )	( )	( )	( )	( )

TOTAL POINTS

This Step of the first phase required 1/2 of man month to complete.

Phase 2 - Aerial Photo and County Road Map Examination

The second phase of the pilot study consisted of the examination of each stream segment through use of aerial photographs and county road maps. Since the Florida Department of Transportation, Photo Section, had several sets of aerial photographs (1 inch = 2,000 or so feet scale), mostly of recent date, and the latest corrected county maps for the study area, arrangements were to carry out this part of the study at their Koger Center in Tallahassee. Detailed descriptions were prepared for each of the sections examined. Urban and residential developments, pasture, and crop lands were measured. Road and utility crossings were counted, and stream characteristics, such as width, channel pattern and width of flood plain, were noted. Information on the type of bank and flood plain vegetation, water weed growth, presence of sand bars, and other characteristics were also noted. A detailed mile-by-mile description could have been produced if desired, but data were summarized and description written of whole segments. However, the aerial photographs could not provide complete information (see Phase 3 for types of information obtained by flying that were missed in aerial photographs).

As a result of the aerial photograph survey, an additional 166 miles of river were eliminated from further examination, because of excessive development or channel alterations, leaving 1,169 miles out of the original 1,827 to be reviewed in the field (list attached).

It should be noted that this cut could have been larger and the miles of streams to be checked in the field reduced to less than 50 percent of the original figure (i.e., to 800 to 900 miles) had we not decided that for pilot study purposes it was desirable to test our procedures by evaluating several rivers in more than one way.

Rivers Remaining Under Consideration After Aerial Photo Reconnaissance--Phase 2 Cuts

River	Length (miles)
1. St. Johns River (above Palatka)	174
2. Oklawaha River (St. Johns tributary)	65
3. Wekiva River (St. Johns tributary)	23
4. Econlockhatchie River (St. Johns tributary)	63
5. Fisheating Creek	61
6. Peace River	91
7. Horse Creek (Peace tributary)	58
8. Myakka River	59
9. Little Manatee River	47
10. Alafia River	71
12. Withlacoochee River	142
13. Waccasassa River	37
14. Suwannee River (below Santa Fe junction)	66
15. Santa Fe River (Suwannee tributary)	110
16. New River (Santa Fe tributary)	30
17. Loxahatchee River	12
TOTAL MILEAGE	1,169

At this point, it was possible to complete those parts of the Proposed Wild and Scenic River Segment Evaluation Form concerning hydrology, water quality (obtained during the inhouse phase 1 data collection), and land use characteristics. This phase of the study consumed 15 man days for 1,335 miles of river examined--or about 1.2 man days per 100 miles of river.

Phase 3 - Field Review

The third phase of the pilot study was conducted entirely in the field and consisted of:

a. surveys from the air

b. surveys on the ground and by boat

c. field interviews with experts

a. surveys from the air--Flights over almost all of the river segments were made possible through the Florida Game and Fresh Water Fish Commission on a reimbursable basis. The aircraft used initially was a Cessna 172, a high wing, single engine plane that carried a pilot and three passengers. The second plane used was a Piper Super Cub float plane that carried a pilot and one passenger. The greater range, passenger space, window space, speed, and lower noise level of the former made it a superior aircraft for this type of survey. The Cessna 180 or similar aircraft would have done equally well. A speed of 130 to 150 m.p.h. and an altitude of about 500 feet seemed to be ideal. From this height, it was possible for one person to use a camera and take notes while the other person handled maps and a small tape recorder. All note taking was done on a casette tape which was mailed to the office for transcription. A key to the photographs taken was also kept.

At an altitude of 400 to 600 feet, it was possible to obtain a clear view of the channel pattern of the river, to see whether it was mature and deeply cut into oxbows, straight, braided, or swampy, and the extent to which the flood plain was developed.

Flying lower over the St. Johns River at 100 to 200 feet, we could see birds feeding in the shallows. It is easier to fly low and at slower speeds over a large river like the St. Johns which does not have much twisting and turning of the channel. On smaller rivers, it was necessary to fly at 400 or more feet in order to be able to follow the river channel without losing it.

Experience in this pilot study showed that the following types of information that were not obtainable from the aerial photogrpahs could be obtained from a plane.

1. This is the most up-to-date view of a river possible.
2. Kinds of trees. (More obvious species like pine, cypress, mixed hardwoods, tall palms and palmettos can be identified).
3. Presence of water vegetation. (Water hyacinth and other large leaved plants).
4. Water color and clarity.
5. Detail of types of development. (Distinction between a small commercial recreation development and a private development).
6. Quality of development. (Permanent or temporary; i.e., whether it might be easily removed).
7. Visual impact on a user. (Scenic characteristics).
8. Types of recreation. (Swimming, canoeing, fishing, and size of boat that can probably negotiate the river).

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9. Channel occlusions and obstructions. (Downed trees, water weed jams, etc.).

Time analysis and comparison:

Flying: We flew 198 miles over the St. Johns, the Wekiva, and the Econlockhatchie, in 2 hours of flying time added to which was 35 minutes each way from the airport at Ocala--a total of 3 hours 10 minutes--60 miles per hour of flight time.

Aerial Photos: 1.2 man days per 100 miles or about 10 miles per hour of examination time.

There are, however, certain weaknesses in observation by plane that tend to offset the foregoing. For example, it is difficult to identify road crossings and river bends for orientation in the short time available when flying. Flying is dependent upon suitable weather, and rain, haze and/or wind currents may prevent low level flight. It is difficult if not impossible to keep up with the view on both sides of the plane, and in the case of tight bends and meanders it is difficult to follow a river completely.

In favor of aerial photographs is the ability to see each frame at the same altitude and angle and for as long as desired to study details and make notes. Segments are easily identified and greater accuracy, if this is desired, can be achieved.

b. field surveys on the ground and by boat--Surveys on the ground were accomplished by reconnaissance at bridge crossings, access points, and by floating selected portions of the rivers under study. This provided a check on features which could not be seen or evaluated completely from the air or in photographs, like the quality of scenery and diversity of plant and animal life and its impact on the visitor.

Field work provided more awareness of different vegetative types, density, variety and an opportunity to identify specific communities. It also gave an appreciation of the problems caused by fallen trees, water hyacinth jams, and duckweed jams, of how uncomfortable large unshaded rivers can be in the summer Florida sun; and how the tides, winds, insects, and other conditions impact the small boat user.

Field work gave insights into the presence of various species of animals and birds on the rivers in terms of abundance and approachability and how important this aspect of the river experience is to the visitor. It also revealed the importance of water levels in terms of minimum flow (the Myakka and New Rivers and Fisheating Creek are floatable during some of the year but are dry and ponded during dry seasons).

Field visits allowed an evaluation of the potential for other recreation such as swimming, hiking, sightseeing, and other activities compatible with the natural qualities of the rivers.

Observation of a stream from a highway bridge crossing can be very misleading because these areas have almost always been modified to provide a wider channel (and therefore slower current) for periods of high flow. To gain a better understanding of a stream's true characteristics, it is desirable to walk or canoe to a distance beyond the modified area. Intermediate, minor river crossings or access points provided more reliable views of a stream than highway crossings.

There is no substitute for canoeing or boating if the river is large enough and passable. Generally it was found that floating a 5 to 10 mile stretch plus observation at other selected points presented the best and most useful view of a river. The information and impressions gained at this stage can be important in making the final choices between streams of approximately equal quality.

c. collecting field information from experts--By the time this stage is reached, the total number of river miles to be considered in the final evaluation should be substantially reduced and fairly well in mind. The advantage of interviewing specialists after the field investigations have been completed lies in the fact that the number and length of streams, or stream segments, that need to be considered will already have been reduced to those which have qualities which deserve detailed evaluation.

In this pilot study, most of the experts consulted were fisheries and wildlife biologists stationed at the field offices

of the Florida Game and Fresh Water Fish Commission and members of the staff and graduate students of the University of Florida. Many others could have been consulted but were not because appointments could not be arranged in the time available to the study team. It is desirable to make appointments well in advance and to see that the specialist understands in advance the study methodology, the type, and the level of information that is desired.

We received more useful information from scientists doing a research project on a specific river than from generalists studying a broader field; i.e., botanist or zoologist dealing with the whole State.

Phase 4 - Analysis and Final Cuts

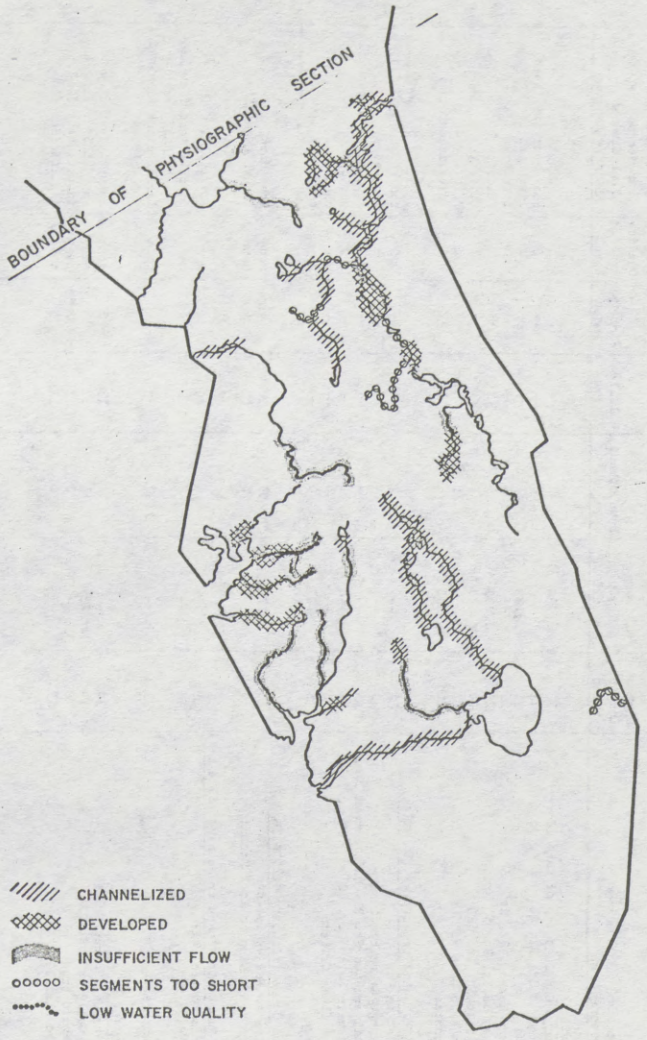
The fourth phase of the study was the recapitulation and analysis of the entire study effort. The aim of the fourth phase was to select those rivers in the physiographic section just studied which have superior natural resources and are worthy of being retained on a list of potential study rivers for the national system.

The objective information developed during the study was used to eliminate rivers or river segments which did not meet criteria because of development, low flow, or water quality. Some rivers could have been eliminated for these reasons much sooner, but we wanted to verify the development and flow information originally obtained from aerial reconnaissance or photographs and water records with actual field experience. Elimination of certain segments left other

segments isolated and of insufficient length. These too, were eliminated.

Finally, a list of 19 segments of rivers, a total of 437 miles, in nine separate rivers, were found to meet minimum objective criteria of length, water quality and development as presented in the Act and Guidelines. These segments were then considered on the basis of their fish and wildlife and recreation values, plus scenic quality and wild character, taking into account both objective data gathered from experts, which were weighted and expressed as an index, and the observations and experiences gained by team members in the field work.

Subjectivity was introduced in this stage of the selection process, but this is not considered undesirable in view of the impossibility of quantifying all the factors which go into the recreation experience and contribute to the impact of the resource on the user. The reasoning which led to the team's decision and the qualitative factors considered have been discussed in the "Summary and Results." A summary of the data collected and a map showing the factors considered which led to elimination of various segments is on the following map and data sheets, pages 26 through 29.



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FACTORS CONSIDERED IN EVALUATION OF RIVERS

SUMMARY OF DATA FOR RIVER SEGMENTS EXAMINED BY OVERFLIGHT AND FIELD VISIT

Number Key	River Name and Segment Description	Segment Length (Miles)	Minimum Monthly Flow c.f.s.	Development Index	Wildlife Index	Fishery Index	Water Quality Problem Level	Comments on Why Eliminated or Priority Ranking
	St. Johns (174 miles)							
1.1	Cross Florida Barge Canal to top of Lake George	33	6,000	72	--	--	3	developed
1.2	Top of Lake George to St. Rt. 44	21	--	46	--	--	3	too short (isolated)
1.3	St. Rt. 44 to I-4	14	2,186	72	--	--	2	developed
1.4	I-4 to top of Lake Harney, St. Rt. 46	25	--	>100	--	--	2	developed
1.5	Top of Lake Harney to St. Rt. 50 bridge	23	1,208	6	7	8	2	Priority B
1.6	St. Rt. 50 bridge to St. Rt. 520	24	810	7	11	8	2	Priority B
1.7	St. Rt. 520 bridge to Lake Winder	12	559	21	11	7	2	Priority B
1.8	Lake Winder to source	22	330	8	11	7	2	insufficient flow
	Oklawaha River (St. Johns tributary) (65 miles)							
4.1	Lake George to Rodman Dam	12	--	2	--	--	3	too short
4.2	Rodman Dam to Orange Creek confluence	8	--	--	--	--	3	impounded
4.3	Orange Creek confluence to St. Rt. 316, Eureka Dam	14	--	--	--	--	3	impounded and channeled
4.4	St. Rt. 316 to 1 mile below Hwy. 40	11	842	21	--	--	3	too short
4.5	Hwy. 40 to source, Lake Griffin	20	--	--	--	--	4	channeled
4.6	Silver Springs Run	5	737	0	--	--	none	too short
	Wekiva River (St. Johns tributary) (25 miles)							
6.1	Mouth at St. Johns to Wekiva Springs	15	279	33	10	4	none	too short
6.2	Rock Springs Run from Wekiva to Rock Springs	8	--	0	10	4	none	insufficient flow
	Econlockhatchie River (St. Johns tributary) (63 miles)							
7.1	Mouth at St. Johns to Fla. 419	21	162	6	10	4	2	Priority B
7.2	Fla. 419 to Fla. 50	16	--	2	10	4	none	insufficient flow and hyacinths
7.3	Fla. 50 to headwaters	26	--	>100	--	--	none	insufficient flow and developed
	Fisheating Creek (61 miles)							
8.1	Okeechobee to swamp at Gopher Gully	14	--	15	13	5	none	insufficient flow
8.2	Swamp at Gopher Gully to U.S. 27	14	239	11	12	5	none	insufficient flow
8.3	U.S. 27 to northward bend	18	--	0	12	5	none	insufficient flow
8.4	Northward bend to Fla. 731	15	--	4	11	5	none	insufficient flow

SUMMARY OF DATA FOR RIVER SEGMENTS EXAMINED BY
OVERFLIGHT AND FIELD VISIT

Number Key	River Name and Segment Description	Segment Length (Miles)	Minimum Monthly Flow c.f.s.	Development Index	Wildlife Index	Fishery Index	Water Quality Problem Level	Comments on Why Eliminated or Priority Ranking
	Peace River (91 miles)							
9.1	Mouth to St. Rt. 70	31	538	30	17	9	3	Priority A
9.2	St. Rt. 70 to St. Rt. 64	10	380	28	13	6	3	Priority A
9.3	St. Rt. 64 to St. Rt. 630/U.S. 98	35	52-235	13	13	6	2	Priority A
9.4	St. Rt. 630/U.S. 98 to headwaters	15	—	20	14	3	2	channeled and insufficient flow
	Horse Creek (58 miles)							
11.1	Confluence of Peace River to Hwy. 70	17	115	19	--	--	2	insufficient flow
11.2	Hwy. 70 to Hwy. 64	26	--	7	--	--	2	insufficient flow
11.3	Hwy. 64 to headwaters	15	--	2	--	--	2	insufficient flow
	Myakka River (59 miles)							
12.1	Mouth to Fla. 72	25	152	18	17	5	4	insufficient flow
12.2	Fla. 72 to swamp north of Myakka City (junction of Oglesby Creek and Long Branch)	27	--	28	10	3	4	insufficient flow
12.3	Swamp north of Myakka City to headwaters	7	--	--	10	4	4	insufficient flow
	Little Manatee River (47 miles)							
14.1	Mouth to Fla. 579	47	134	88	8	7	none	developed
	Alafia River (71 miles)							
15.1	Mouth to forks of North and South Prongs	25	234	65	13	6	1	polluted and developed
15.2	Forks to headwaters of North Prong	19	98	13	9	1	1	polluted and insufficient flow
15.3	Forks to headwaters of South Prong	27	107	11	10	2	1	polluted and insufficient flow
	Hillsborough River (60 miles)							
16.1	Mouth to Fla. 582A	20	--	>100	6	6	2	developed
16.2	Fla. 582A to U.S. 301	24	241	12	10	5	2	Priority A
16.3	U.S. 301 to headwaters	16	92	12	10	4	2	Priority A

SUMMARY OF DATA FOR RIVER SEGMENTS EXAMINED BY
OVERFLIGHT AND FIELD VISIT

Number Key	River Name and Segment Description	Segment Length (Miles)	Minimum Monthly Flow c.f.s.	Development Index	Wildlife Index	Fishery Index	Water Quality Problem Level	Comments on Why Eliminated or Priority Ranking
	Withlacoochee River (142 miles)	22	--	--	--	--	3	Cross Florida Barge Canal
17.1	Mouth to Dunellen (U.S. 41 bridge)	24	--	9	--	--	none	Priority A
17.2	U.S. 41 at St. Rt. 44 bridge	25	392	16	--	--	none	Priority A
17.3	St. Rt. 44 to St. Rt. 476	20	161	19	--	--	none	Priority A
17.4	St. Rt. 476 to U.S. 301	22	98	55	13	5	none	insufficient flow
17.5	U.S. 301 to Dade City	29	--	12	13	5	none	insufficient flow
17.6	Dade City to source							
	Waccasassa River (37 miles)	22	276	19	9	6	none	Priority A
18.1	Mouth to St. Rt. 24	15	--	2	5	4	none	Priority A
18.2	St. t. 24 to headwaters							
	Suwannee River (66 miles)	33	11,450	18	7	9	none	Priority A
19.1	Mouth at Bradford Island to U.S. 19 and 98	33	8,034	5	6	7	none	Priority A
19.2	U S. 19 and 98 to Santa Fe junction							
	Santa Fe (Suwannee tributary) (110 miles)	39	1,971	53	3	8	none	Priority C
20.1	Mouth to Sinks in O'Leno St. Pk.	15	656	6	6	5	nene	Priority C
20.2	Sinks to Fla. 121	16	--	12	5	5	none	insufficient flow
20.3	Fla. 121 to Fla. 231	25	101	8	6	6	none	insufficient flow
20.4	Fla. 231 to Fla. 200	15	--	3	4	5	3	insufficient flow
20.5	Fla. 200 to Little Santa Fe Lake							
	New River (Santa Fe tributary) (30 miles)	15	--	7	6	6	none	insufficient flow
21.1	Mouth to Fla. 100	15	--	11	5	5	none	insufficient flow
21.2	Fla. 100 to headwaters							
	Loxahatchee (12+ miles)	6	--	>100	--	--	none	developed
22.1	Mouth to river mile 6	6	--	16	--	--	none	too short
22.2	River mile 6 to mile above Sunshine Parkway bridge	--	--	>100	--	--	none	channeled
22.3	River mile 12 to headwaters							

STATEMENTS SUBMITTED FOR THE RECORD

STATEMENT OF CONGRESSMAN CHARLES E. BENNETT

ON CANAL DEAUTHORIZATION ISSUE

(FOR SENATE SUBCOMMITTEE ON WATER RESOURCES)

July 26, 1978

As the Representative of the Third Congressional District of Florida, I have been involved in the Cross Florida Barge Canal question since my arrival in Washington thirty years ago. The question is not a new one. Congress in fact appropriated monies for canal studies as early as 1826. Modern day congressional involvement can be traced to the authorization of 1942. It is this authorization that you are considering abolishing today.

My position on the Canal has consistently been favorable for construction and still is. The economic impact would unquestionably be beneficial to the state and I think for the nation. It has a favorable benefit cost ratio. Also the completed canal could result in thousands of acres of lake water providing tremendous new recreational possibilities as well as valuable water reservoirs; and its adjacent lands can protect wildlife and plant life which otherwise might not be protected. The environmental and economic impacts of construction have been studied and reviewed numerous times in the last thirty years and the results have been favorable for construction, as I read those studies.

Today the Canal is one third complete and $70 million of federal funds have been appropriated. The people of Florida through State law asked that the Federal government undertake the project and they have not asked for its deauthorization by repeal of those laws. Although the State Cabinet has voted against completion of the canal, this is not tantamount to repeal of the laws. In 1933 Florida established by State law the State Canal Authority and gave the Authority "...perpetual existence" and "...granted the right,

privilege, franchise, power and authority: To acquire, own, construct, operate and maintain a canal across the peninsula of Florida..." Although there have been efforts to repeal this law, they have been unsuccessful. Attempts to reduce or eliminate funding for the authority likewise have been defeated. The elected representatives of the people of the State of Florida have not repealed these laws and have made considerable local tax funds available. Until Florida repeals its laws it would seem inappropriate for the Federal government to kill the project it seems to me. The Corps of Engineers itself solicits the approval of Members of Congress before it allows its automatic deauthorization system to drop projects within the respective Members' districts. Surely, Congress itself should be willing to show the same professionalism and courtesy to the states and to the local areas which have particularly requested the projects and which have taxed themselves millions of dollars for the project in funds now expended.

The resolution before you today is not whether to continue funding of the project by the Federal government -- a question that can be carefully evaluated on a year by year basis under our normal appropriations process -- but the bill before you would eliminate any further consideration of the question. This is not a question to be taken lightly and certainly not a question to be considered without a clear mandate from the people who have been taxed by local taxes in order to see the Canal constructed. It would seem to me that the area in Florida which has been taxing itself for the project, as well as the State itself, should be consulted before a bill such as this should be considered.

Gentlemen, I strongly urge you to vote against this bill.

Testimony of the Honorable William Lehman on S. 1592 before the Senate Subcommittee on Water Resources

Mr. Chairman, for both environmental and economic reasons, I support the passage of S. 1592, legislation that provides for a termination of authority for further construction of the Cross-Florida Barge Canal.

The environmental reasons for not completing the canal are extensive. Construction and operation of this canal would seriously threaten both the Florida Aquifer and Florida's water supply. The Florida Aquifer is a water-filled underground layer of fragmented limestone which provides freshwater for the region. Twenty-eight miles of the canal would cut down into the limestone, allowing for the possible interchange of canal waters and the rest of the aquifer. Pollutants, especially water soluble ones, introduced into the canal waters could move into this aquifer. The two major sources of dangerous aquifer pollution would be from toxic substances spilled from barges and from water polluted with high levels of coliform bacteria.

Not only would the quality of Florida's water be damaged by this construction, but the quantity of water available from the aquifer in the canal region would also be adversely affected. Far from providing water conservation benefits, the canal would compete with domestic, industrial, and agricultural uses for water.

As regional water demands increased, the aquifer would be unable to provide for both people's needs and the floating of barges.

A second major environmental concern is the damage that would result to the Oklawaha River system. The Oklawaha River Basin is a unique sub-tropical ecosystem with an unusual diversity of plants and animals. Its aesthetic, recreational, sporting, and scientific values are increased because there are very few other unspoiled and wild rivers in Florida and in the rest of our nation.

Both the wildlife and fisheries in this canal area would be harmed by the completion of this project. The few benefits to our wildlife that would result would be minor and temporary. They would mainly affect common species. In sharp contrast, the harmful effects would generally be permanent and of major importance. In addition, they would affect more Endangered and Threatened Species. The sandhill cranes which inhabit marshes and small ponds in upland areas would lose their habitat to reservoirs or canal ditches. The manatee would be endangered by the barge and boat traffic.

Fisheries would also be harmed. In the long term, canal impoundment fisheries are less productive than those of the free-flowing rivers which they replace.

In addition to these environmental reasons, there are strong economic reasons for terminating the barge canal project. The canal would not provide a significant

impetus to the local economy, because there would be little if any induced industrial development and relatively few new jobs created. In fact, the Corps of Engineers suggested in a report that more new jobs would be created in the canal area if the valley was restored to its pre-canal condition and developed for tourism. Tourism is Florida's leading industry, and, compared to canal construction and operation, it has produced many more jobs for the invested amount of money.

When one combines these economic and environmental factors, the reasons for enacting S. 1592 become extremely convincing. The Corps of Engineers noted in their report that:

> When the marginal economic justification is combined with adverse environmental impacts, the combined total effect does not favor completion.

There can be no rational reason for continuing the construction of a project as harmful as the Cross-Florida Barge Canal.

OFFICE OF THE PRESIDENT

June 20, 1978

Senator Mike Gravel
Chairman, Water Resources Subcommittee of
Committee on Environment &
Public Works
4204 Dirksen Building
Washington, D. C. 20510

Dear Senator Gravel:

Thank you for allowing interested parties the opportunity of submitting statement to you and members of your sub-committee which has scheduled a hearing for June 23 on the proposed deauthorization of the Cross-Florida Barge Canal.

This project is of such impact and economic importance to my home county of Duval and to the entire State of Florida that I would much have preferred the opportunity of appearing personally to outline my thoughts favoring retention of the authorization. However, my schedule precluded the trip and I am thus taking advantage of your kindness in allowing written statements.

First of all, Mr. Chairman, it is important to note that this project has undergone more national scrutiny than nearly any other single project in a state. Yet, despite this continuing investigation, the canal project has been approved and reapproved and again reapproved through the years.

In these days of economic stress, it is of particular importance that all of us in government pay keen attention to projects which will stimulate any facet of the economy of this nation. The Cross-Florida Barge Canal certainly will spur the economy of Florida through sharply increased trade and commerce.

Additionally, and of significant importance in these days where we are trying so desperately to preserve and expand natural resources and recreational opportunities for our citizens, the tremendously successful recreational areas which have been opened to the public as a result of the creation of lakes in that part of the canal chain already completed, should be given weighty consideration.

Under no circumstances, even should the Congress decide (mistakenly in my opinion) to deauthorize the project, should these water recreational areas be destroyed. Studies and reports by appropriate experts are in near unanimity that to attempt to draw down the lack areas today would leave a vast wasteland of land which would be of little, if any, recreational value.

Another vitally important aspect of this question is the relationship between the Federal government and state and local governments.

In this particular instance, the Federal government mandated taxpayers living in counties along the canal route dip into their tax funds for the acquisition of rights-of-way. These citizens had no choice in the land purchases they financed, yet it is proposed now to eliminate the economic good which would have come from creation of the canal with no thought of repayment for these monies already spent.

I am strongly convinced that any value of fairness and justice should dictate that in the event of deauthorization, there first should be a binding pact that all of these expended funds would be repaid by the Federal government to the counties. Likewise, the payments should, in my opinion, include reasonable interest fees for the period of time the tax funds have been appropriated by federal action.

Finally, Mr. Chairman, I would request that you and your colleagues examine this project being always mindful of the wishes and desires of the people in whose district it is located, just as would be done with a similar project in your districts.

With the hope that your committee can come to the just conclusion that authorization of the canal project should be continued, I am

Most sincerely,

Lew Brantley

Lew Brantley

LB:bab

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9044880353 MGM TDMT TALLAHASSEE FL 148 06-20 0132P EST

SENATOR MIKE GRAVEL
4204 DIRKSEN BLDG
WASHINGTON DC 20510

REFERENCE SENATE 1592 THE PEOPLE OF FLORIDA HOUSE DISTRICT 28 HAVE REPEATEDLY EXPRESSED THEIR COLLECTIVE DESIRE TO HAVE THE CROSS FLORIDA BARGE CANAL COMPLETED AND FULLY OPERATIONAL. THE ENORMOUS ECONOMIC BENEFITS IN TERMS OF NEW JOB NEW INDUSTRY, INCREASED TAX BASE, AND RELATED ECONOMIC ACTIVITY IN THE AREA IS OBVIOUS, DESIRABLE, AND GREATLY WANTED BY THESE VOTERS WHO HAVE ALREADY INVESTED MILLIONS IN THE PROJECT.

TERMINATION OF THE PROJECT AND DESTRUCTION OF THE VALUABLE COMPONENTS BUILT TO DATE IS A MONUMENTAL WASTE OF TAX DOLLARS THAT WILL BE LONG REMEMBERED BY THOSE VOTERS OF DISTRICT 28 WHO HAVE PAID SO MUCH FOR SO LONG, AND WILL GET NOTHING IN RETURN.

WE URGE YOUR COMMITTEE TO KEEP THE PROJECT INTACT AND PRESERVE AND PROTECT THE HUGE INVESTMENT AND NOBLE EFFORT MADE IN GOOD FAITH LONG AGO BY THE TAXPAYERS AND VOTERS OF DISTRICT 28

A H "GUS" CRAIG STATE REPRESENTATIVE DISTRICT 28 ROOM 417 CAPITOL TALLAHASSEE FLR 32304

13:30 EST

MGMCOMP MGM

DOYLE CONNER
COMMISSIONER

THE STATE OF FLORIDA
DEPARTMENT OF AGRICULTURE
THE CAPITOL
TALLAHASSEE
32304

June 19, 1978

Ms. Ann Garrabrant
Water Resources Subcommittee
4204 Dirksen Senate Office Building
Washington, D.C. 20510

Dear Ms. Garrabrant:

Due to a previous commitment I will be unable to attend the June 23 hearing on S. 1592, but would like to request that this letter be entered into the record.

As Florida's elected Commissioner of Agriculture, and as a member of the Florida Cabinet, I have been closely involved in the Cross Florida Barge Canal for the past 16 years. I believe this project has the strong support of the vast majority of the citizens of the Northeast Florida area. The citizens of the counties bordering the canal have contributed in excess of $9.3-million through ad valorem taxes in order to provide their portion of the local cost of the Barge Canal. Additionally, the State of Florida has contributed over $7,500,000-million to the project. I urge the United States Senate not to deauthorize this project.

As Commissioner of Agriculture, I recognize the importance of waterway development projects to our agricultural economy. Water borne transportation is certainly the most economical method of transporting many of our finished agricultural products, as well as much of the raw materials used by our farmers and ranchers.

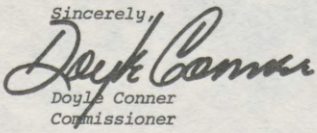
Because of Florida's climate our citizens have the largest consumption of electricity per capita in the nation. Since completion of the Corps of Engineers' restudy of the economics of the canal construction has been started on two large electric generating plants which will utilize approximately 9,000 tons of coal per day. Additionally, the City of Jacksonville is currently planning construction of a large generating facility which will also utilize coal as a source of fuel. These facilities could all be served by the Barge Canal.

Let me urge you to consider these facts in making your decision on the Barge Canal.

In closing, let me again request that this project not be deauthorized. The Corps of Engineers, after a very exhaustive restudy of the canal has found that the project would have minimum environmental effects. I believe the project is economically sound at the present, and with our energy shortages in the future be a wise investment.

With warm regards, I am

Sincerely,



Doyle Conner
Commissioner

DC/bm

ANCHORAGE COMMUNITY COLLEGE
of the UNIVERSITY of ALASKA

2533 PROVIDENCE AVENUE
ANCHORAGE, ALASKA 99504
TELEPHONE 279-6622

June 15, 1978

412

Honorable Mike Gravel
United States Senate
3317 Dirksen Senate Office Bldg.
Washington, D.C. 20510

Dear Senator Gravel:

I understand that you are the chairman of the sub-committee that is hearing the bill to de-authorize the Cross Florida Barge Canal and that a hearing is scheduled at 10 a.m., June 23, in Room 4200 of the new Senate Office Building.

I strongly urge you not to take this action. The canal is of tremendous importance to the residents of the State of Florida and I have personal knowledge of its benefits to the general citizens of that state. The only interest to be served would be that of the railroad industry. It would neither be environmentally sound nor, in the long run, economically wise.

Thank you for your attention to this critical matter to the citizens of the State of Florida and those of us who occasionally visit that beautiful area.

Sincerely,

Bill F. Stewart

Bill F. Stewart
President

/ps

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June 12, 1978

REPLY:
P.O. Box 2918
Jacksonville, Fla. 32203

The Honorable Mike Gravel
Senate Committee on Public Works
United States Senate
The Capitol
Washington, D. C. 20510

Dear Senator Gravel:

The letter is to express my strong opposition to the proposed deauthorization of the Cross Florida Barge Canal project (Stone/Chiles Bill S. 1592). I understand that the Water Resources Subcommittee of the Senate Committee on Public Works and Environment has scheduled a hearing on this bill for June 23.

As a native of the project area, I am intimately acquainted with the project, its impacts, its benefits, and the strong desires of the local citizens to see the project through to completion. As Governor of Florida at the time, I led the efforts to get this project underway, and I have followed closely the work of the Corps of Engineers in compiling their statement and restudy report. The report of 25 May 1977, by the Committee on Appropriations for Public Works concluded that the project remains economically and environmentally viable.

Virtually every objection to the project, environmental and economic, has been shown to be without merit. I hope that you will see fit to oppose the deauthorization of the Cross Florida Barge Canal project.

Respectfully yours,

Farris Bryant

FB/e

FRANK Hancock
TELEPHONE 325-5371
fh insurance agency
505 ST. JOHNS AVENUE • PALATKA, FLORIDA 32077

June 12, 1978

Senator Mike Cravel, Chairman
Committee on Environment & Public Works
Room 3317, Dirkson Senate Office Bldg.
Washington, D.C. 20510

Dear Senator Gravel:

I have heard today that your subcommittee on water resources will consider a bill proposing the deauthorization of the Cross Florida Barge Canal. I understand that this hearing is scheduled for 10:00 A.M., June 23, 1978, in Room 4200 of the new Senate Office Building.

As you know, this project was held to have been illegally stopped by then President Nixon, but once stopped, has not as of this date been restarted. The U.S. Army Corps of Engineers and other federal agencies have determined that this project is environmentally and economically sound. Therefore, we in this area, believe the project should go forward.

I would appreciate it if you would oppose this bill and let the canal be completed.

Respectfully yours,

F M Hancock

Frank M. Hancock

FMH/dn

RALPH E. ELLIOTT, JR., P.A.
ATTORNEY AT LAW
Suite 201 - 1649 Atlantic Blvd.
Jacksonville, Florida 32207
615 AMERICAN HERITAGE LIFE BUILDING
JACKSONVILLE, FLORIDA 32202

RALPH E. ELLIOTT, JR.

AREA CODE 904
TELEPHONE 354-7407
398-6981

June 19, 1978

Honorable Mike Gravel, Chairman
Senate Committee on Public Works
United States Senate
The Capitol
Washington, D. C. 20510

RE: S.1592

Dear Senator Gravel:

For the past ten years, I have been the attorney for the Cross Florida Barge Canal project. I am writing this not as the attorney for the project but in my capacity as a private citizen.

In 1971, at the time Nixon halted the project-an act which the court later held to be an unconstitutional violation of the separation of powers doctrine-there was a court suit pending against the project.

After a lengthy trial in 1973, the Court voided Nixon's halt order and ordered that an environmental impact study be made on the overall project.

The only serious environmental charge in the suit which had been instituted by the Environmental Defense Fund of N. Y. (EDF) and Florida Defenders of the Environment (FDE) was that the project would damage the Floridan aquifer. The suit sought to have the project declared unlawful because in 1942 the Chief of Engineers had advised the Congress that the project could be built without adverse effect on the groundwater supply in the area of the project. EDF alleged that the Chief had committed fraud in mis-advising the Congress.

Two of the Canal Authority witnesses had studied the geohydrology of the project over a period of 30 years and the other one had just completed a two year intensive study. They all three testified that based on their expertise and studies it was their opinion that based on a reasonable scientific probability the project could

be constructed and operated with no adverse impact on the water supply for Florida. The opponents had one witness with very little in depth experience on the geohydrology of the area. All of this testimony was subject to cross examination.

The Court's Opinion and Judgment dismissed this count of the Complaint saying that based on the evidence heard there existed a sufficient basis for the Chief of Engineers to hold that judgment.

In the meantime, the Congress appropriated nearly $3 million for the Corps to complete its environmental impact study and economic restudy.

The EIS showed no significant environmental impacts. The economic restudy reflected a positive benefit cost ratio even without including Sec. 140 Regional Impact benefits.

Two other highly potential benefits are:

1. Increase in water reserves. On June 16, 1978, the U. S. Geoglogical Survey stated that Florida must increase its water reserves; that while the amount of water in the Floridan aquifer has remained unchanged, the water withdrawn has jumped each day by 20%. The two reservoirs-Lake Oklawaha (completed now for 10 years and a fishermen's mecca) and the Eureka Pool will substantially contribute to this need for further water reserves.

2. The energy crises and water transport of coal. Seaboard Coast Line Railroad and its subsidiary, the Louisville and Nashville have been the leading behind-the-scenes opponents of this program. In recent years, they have reduced their tracks by almost 50%. The energy crisis and the transition to coal from oil will require all the available transporation sources possible, including rail and water. Four new 500 MWA plants will be built along the route of the Cross Florida Canal. The transportation savings of water will be more than adequate to increase the benefits of this project substantially

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and will help solve the interim energy crisis. The Corps indicated a $5 million per year transportation savings with this Canal completed.

It is strongly urged that deauthorization of this vital transportation link be delayed until its impact on the energy crisis is fully analyzed.

Sincerely,

Ralph E. Elliott

REE:ms

RALPH E. ELLIOTT, JR.

cc: Honorable Richard Stone
Honorable Lawton Chiles
Honorable Lloyd Bentsen
Honorable Quentin N. Burdick
Honorable Malcolm Wallop
Honorable Pete V. Domenici
Honorable Edmund S. Muskie
Honorable James A. McClure

SINCE NINETEEN HUNDRED



"THE VOICE OF CONSERVATION"

May 29, 1978

Senator Mike Gravel, Chairman
Subcommittee on Water Resources
Committee on Public Works
4204 Dirksen Senate Office Bldg.
Washington, DC 20510

Subject: Support for SB 1592 - Deauthorization of the CFBC

Dear Senator Gravel:

We of the Florida Audubon Society were most pleased to learn that Drs. David Anthony and John Kaufmanhof Florida Defenders of the Environment had been invited to testify to your Subcommittee regarding the deauthorization of the Cross Florida Barge Canal on June 23.

The 35,000 members of the Florida Audubon Society have stood in steadfast opposition to the Canal for over a decade. We view the Canal as an environmental disaster for our state, and we abhor the destruction that has already taken place.

Audubon is an old warhorse; a politically savvy organization. We believe in the principle of compromise, and acknowledge that on occasion environmental integrity must yield to economic gain. But, we submit that in the case of the barge canal, there is nothing left to compromise about. The Army Corps of Engineers has agreed that the Canal is an economic loser, a fact the Florida Defenders discovered long ago.

Many people, nationwide, marvel at the success the Florida environmental community has enjoyed in turning the tables on the Cross Florida Barge Canal. That success, we believe, was born of determined adherence to facts and objectivity. In the light of truth, the Barge Canal killed itself.

Florida Defenders of the Environment has committed itself to uncovering those facts over the years, and to having them honestly appraised by the powers that be. We believe you will be greatly satisfied with the quality and depth of the testimony that Dr. Anthony and Dr. Kaufman will deliver. Rest assured that they go to Washington with the full, enthusiastic endorsement of the Florida Audubon Society.

If I or my staff can contribute in any way to the deliberations of your

FLORIDA AUDUBON SOCIETY
921 Lake Sybelia Drive • P. O. Drawer 7 • Maitland, Florida 32751
(305) 647-2615

committee, we will be happy to cooperate.

We ask that you speed Senate Bill 1592 along its way, and please extend our compliments to Senators Chiles and Stone for their courageous championship of this exquisite legislation.

Sincerely,

HAL SCOTT
President

SINCE NINETEEN HUNDRED

"THE VOICE OF CONSERVATION"

July 21, 1978

The Hon. Mike Gravel
Room 6665
The Capitol
Washington, D.C.

Dear Senator Gravel:

I have reviewed the amendments proposed for S 1592 relating to the disposition of the Cross Florida Barge Canal and Canal lands. I find the amendments, taken largely from S 1593, to be extremely useful to the purpose of efficiently terminating the project and coping with the lands that will remain. The bill will be more complete with the proposed amendments.

By establishing an enactment date of July 1, 1979 for S 1592, the Florida Legislature will have the opportunity to provide a fair mechanism to unravel land onwership and management problems envisioned here in the state.

Florida Audubon is at your complete service on this issue. From a regional point of view, it is our primary Congressional goal.

Our ultimate objective, as you know, is the restoration and protection of the Oklawaha River. We anticipate legislation to achieve this end in the near future.

Sincerely,

Hal Scott

HAL SCOTT
President

rd

FLORIDA AUDUBON SOCIETY
921 Lake Sybelia Drive • P. O. Drawer 7 • Maitland, Florida 32751
(305) 647-2615

FLORIDA BI-PARTISANS

CIVIC AFFAIRS GROUP

PHONE :

813-537-1329

Re: CROSS FLORIDA BARGE CANAL PUBLIC HEARING June 23, 1978

June 16, 1978

Honorable Senator Mike Gravel
Senate Office Building
Washington, D.C.

Dear Senator Gravel:

Will you please enter the following brief statement in the record of the Cross Florida Barge Canal Public Hearing on June 23rd?

We also request that it be read aloud at that time of your important hearing. We are sorry not to be able to attend in person but will anticipate hearing about it through news reports and others from Florida who will attend.

Thank you very much, Sincerely,

M.K. Chinnock

M.K. Chinnock
Rt. 1 Box 238E
Ft. Meade
Florida33841

MK/CH

FOR THE RECORD - CROSS FLORIDA BARGE CANAL HEARING

Florida Bi-Partisans Civic Affairs Group, an eighteen year-old organization dedicated to continuing education, responsible government and citizen participation in the public hearing process, strongly urge de-authorization of the Cross Florida Barge Canal. We base this on continuing study of the economics of the Public Works project, the water conditions involved and the potential for serious damage the project- if completed- would cause to Florida.

ENVIRONMENTAL INFORMATION CENTER
OF THE FLORIDA CONSERVATION FOUNDATION, INC.

935 ORANGE AVE • WINTER PARK, FLORIDA 32789 • TEL. (305) 644-5377

June 13, 1978

Subject: Support for SB 1592, deauthorization of the Cross Florida Barge Canal.

Senator Mike Gravel, Chairman
Subcommittee on Water Resources
Committee on Public Works
4204 Dirksen Senate Office Building
Washington, D.C. 20510

Dear Senator Gravel:

For over 15 years we have observed public attitudes regarding the Cross Florida Barge Canal. During the mid 1960's, the majority of Florida's local, state, and federal elected officials supported the project in the belief it would enable significant quantities of goods to be transported to and from the State, lowering the cost of living in Florida and providing economic benefits to relatively undeveloped areas.

However, closer examination by citizen groups, specialists, and officials have shown that the claimed economic benefits were insupportable and that, in fact, the barge canal would predictably incur construction, maintenance, and operation costs far outweighing the benefits used earlier to promote the barge canal. By 1970, former support by the Florida public had largely turned to opposition, and polls showed that the majority of officials reflected the current public opinion. The majority of the media, much to its credit, changed from supporting the barge canal to criticizing it on the grounds that it was an environmentally damaging economic boondoggle.

The barge canal is an obsolete project designed at a time when Florida's (and the nation's) resources were believed endless and even useless until they were exploited. The values of native wetlands were not widely appreciated, and water was often considered an enemy to development and to public safety. But in the last six years, the State and the voters have approved programs to acquire environmentally sensitive lands, and the Governor, Cabinet, and Legislature now consistantly support measures to guide growth in order to avoid environmental damages such as those associated with the barge canal. I believe that the example of environmental destruction provided by the partial construction of the barge canal has been instrumental in encouraging those measures.

It is often surprising, even amazing, to citizens of Florida and to those of other parts of the country that the Cross Florida Barge Canal is still authorized; in view of the widespread opposition at all levels, they feel that it must have been terminated. It is our opinion that approval of SB 1592 will be a positive step to solving the barge canal issue for all time.

Sincerely,

William M. Partington, Jr.
Director

FLORIDA FEDERATION OF GARDEN CLUBS, INC.
MEMBER NATIONAL COUNCIL OF STATE GARDEN CLUBS, INC
HEADQUARTERS: 1400 S. DENNING DR.
P.O. BOX 1604 - WINTER PARK, FLORIDA 32790
TELEPHONE: 647-7016



Box 283
Trenton, Fla. 32693
July 21, 1978

Senator Mike Gravel, Chairman
Sub-committee on Water Resources
Committee on Public Works
4204 Dirksen Senate Office Building
Washington, D. C. 20510

Subject: Support for S. 1592-deauthorization of the CFBC

Dear Senator Gravel:

The Florida Federation of Garden Clubs, Inc., representing more than 30,000 members, has opposed the Cross Florida Barge Canal by resolution and as a participant at many hearings throughout the more than 10 years since the first resolution was passed. We heartily support S.1592 and the amendments thereto. The boundaries of the Ocala National Forest should be extended to include the lands north and west of the Oklawaha River and to be administered and made a part of the Ocala National Forest. The procedure outlined for authorization of the Secretary of Agriculture to acquire lands held or acquired by the Canal Authority of the State of Florida seems adequate and fair to all owners of land involved. We concur in the belief that this procedure is adequate to owners of land coming within the bounds of the original Cross Florida Barge Canal. We fully trust that you and your Committee will see fit to deauthorize the Cross Florida Barge Canal at this meeting.

Yours sincerely,

Hilda S. Kressman

(Mrs. John Kressman)
FFGC National Legislative Chmn.

cc. Pres. Jimmy Carter
Mrs. Marjorie Carr
Mrs. D. R. Villareal, Jr.

robert t roess
president

florida investors mortgage corporation
mortgage bankers / real estate investments

6306 South U. S. 441 at Rocky Point Road
P.O. Box 639 / Gainesville, Florida 32602
Telephone (904) 377-5665

7 June 1978

Honorable Mike Gravel
Chairman
Subcommittee of Water Resources
Committee on Public Works
U. S. Senate
Washington, D. C.

Dear Senator Gravel:

I am writing to encourage your support of de-authorization of the Cross Florida Barge Canal Authority and further to encourage restoration of the Oklawaha River and its inclusion in the Ocala National Forest. I am sure you are aware of the massive public opposition to the Cross Florida Barge Canal, both in the state at large, and by the population of the areas immediately affected. The arguments against the canal are numerous and well-documented. What remains now is to restore the Oklawaha River to its natural state through elimination of Rodman pool, which, while it initially had attraction as a recreational entity, has now been found, as so many artificial lakes, to be becoming dysfunctional and increasingly expensive. As one citizen who has observed the lake in operation, I note that most bass fishing is done near the dam and spillway, and that less than 10% of the lake at this time is open water, due to the growth of aquatic weeds. In addition, of course Rodman pool inhibits the natural environmental function of the Oklawaha River which in itself provides a vast recreational benefit both from the standpoint of fishing and boating. This area of Florida has 200,000 acres of fresh water lakes within 30 miles of Rodman, but it only has one Oklawaha River, a scenic and wild river of immense natural beauty and ecological function, and it is therefore my opinion, that of a native Floridian who spent much of his childhood in and around the Oklawaha, that it should be restored and Rodman pool eliminated.

I therefore urge you to listen closely to the testimony and it is my hope you will de-authorize the canal, and provide for restoration of the Oklawaha River Valley.

With kind regards,

Robert T. Roess
President

RTR/bh

FORTSON ASSOCIATES, INC.
447 ATLANTIC BOULEVARD
ATLANTIC BEACH, FLORIDA 32233
904-246-4809

Senator Mike Gravel (D.-Alaska)
Chairman, Water Resources Subcommittee
Environment and Public Works Committee
Washington, D.C. 20510

DATE 17 June 1978

SUBJECT Bill S. 1592

I understand that your Subcommittee will hold hearings on a bill that would deauthorize the Cross Florida Barge Canal on Friday 23 June. Unfortunately I cannot come to Washington to express my personal opposition to this bill. I fear that my two Senators are , like President Carter, caught in a promise make based on partial information, half-truths and exaggerations.

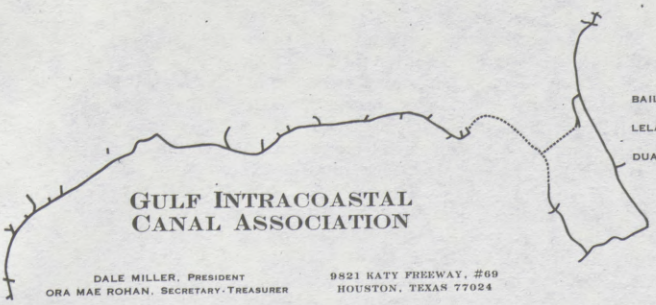
The Bill is not appropiate at this time since the Congress (the House of Represents tives) has not received the information requested of the Corps of Engineers and needed to make a fresh decission on the worth of the project now that it has illegally been haulted.

I urge that you not support this bill. It is out of order, not in the best interest of the Nation. Haulting this water project will deprive us of more water transportation which is six times as energy efficient as rail. The project is wanted by the vast majority of the people with whom I am in contact. We are the people that live along the canal route.

Sincerely,

R. Malcolm Fortson, Jr.

R. Malcolm Fortson, Jr.



GULF INTRACOASTAL
CANAL ASSOCIATION

DALE MILLER, PRESIDENT
ORA MAE ROHAN, SECRETARY-TREASURER

9821 KATY FREEWAY, #69
HOUSTON, TEXAS 77024

BAILEY T. DEBARDELEBEN, VICE-PRESIDENT
NEW ORLEANS, LOUISIANA

LELAND BOWMAN, VICE-PRESIDENT
JENNINGS, LOUISIANA

DUANE ORR, VICE-PRESIDENT
CORPUS CHRISTI, TEXAS

ORGANIZED AT
VICTORIA, TEXAS,
AUGUST 8, 1905

Statement of Dale Miller
President of the Gulf Intracoastal Canal Association
Submitted to the Subcommittee on Water Resources of the
Senate Committee on Environment and Public Works
July 26, 1978

Mr. Chairman and Members of the Subcommittee:

My name is Dale Miller, and I am President of the Gulf Intracoastal Canal Association, with principal offices in Houston. It is my privilege to submit to you herewith this statement expressing the opposition of our organization to S. 1592, the bill to terminate construction of the Cross-Florida Barge Canal.

Our Gulf Intracoastal Canal Association was organized 73 years ago in 1905, and through the years it has cooperated actively with Congress and Government agencies in the creation of the Gulf Intracoastal Waterway system, a complex of navigation facilities which has come to be regarded as the most remarkable artery of transportation in America. It has achieved by far the highest ratio of benefits-to-costs of any waterway in the nation -- or of any other form of transportation. Its annual commerce of 100,000,000 tons exceeds by twenty times the figure of five million tons which was originally predicted for it when it was authorized.

The main channel of the Gulf Intracoastal Waterway extends today approximately 1,200 miles from the Mexican border to the west coast of Florida, and it is a significant and noteworthy fact -- especially pertinent to these hearings -- that a similar navigation facility, the Atlantic Intracoastal Waterway, extends a similar distance, with similar dimensions of depth and bottom width, from the east coast of Florida to the northeastern section of the United States.

Taken together, therefore, these two waterways would constitute a single entity extending 2,500 miles along the Gulf and Atlantic coasts -- a remarkable navigation facility unexampled throughout the world. But they cannot be "taken together", of course, because midway along the system is the missing connection -- the Cross-Florida Barge Canal -- that is vitally needed in the national interest.

So I respectfully suggest to you -- and this fact underlies the entire problem -- that although the project itself is confined to a single State it is by no means an isolated or provincial facility. It is important to distant Texas -- indeed, even to the neighboring nation of Mexico -- and important as well to States along the eastern seaboard of the United States, reaching as far north as New Jersey. And even more, by the connections of the Gulf Intracoastal Waterway with the vast Mississippi and Ohio River systems, the project is important all across the nation's heartland -- an integral part of a national transportation system.

So I urge you to place this problem in the perspective that it fully deserves. It is a project that does not belong to Florida alone. It belongs as well to most of the United States, from the Gulf of Mexico to the Great Lakes, and from the Rocky Mountains to the Atlantic. That is why I feel no sense of presumptuousness in expressing the opposition of our Association to the deauthorization of this project.

The Cross-Florida Barge Canal has been beset for years by the opposition of environmental and ecological groups. We think those objections are virtually without merit, and we speak confidently from our own long experience. We constructed the Gulf Intracoastal Waterway over a long period of years, for more than a thousand miles, and we dredged it inshore and offshore, across bays and rivers, through lagoons and bayous and estuaries and mudflats and marshlands -- and today, as it moves north and then east from the border of Mexico, it parallels the Padre Island National Seashore for a hundred miles. It crosses a corner of the refuge of the whooping cranes -- crosses busy ship channels thronged with fishing and shrimp boats, convoyed by ever-present porpoises. It penetrates the bayous of Louisiana, passing alongside game preserves and the habitat of exotic wildlife -- and on to the Gulf Isles of Florida.

That is the world of our Waterway. It is a commercial enterprise that beggars description, yet it was accomplished in harmony with the environment. We have learned that progress and preservation can, and do, co-exist together.

We are resolutely confident that the Cross-Florida Barge Canal can achieve the same striking results -- enriching the economy without impairing the environment. In view of our long experience, it is difficult for us to believe that there are some intricate and mysterious ecological problems in that area that were not encountered, and successfully overcome, along a thousand heterogeneous miles to the west.

So we respectfully urge this Subcommittee to keep alive the opportunities and challenges which still lie ahead -- not to suffocate them by terminating the life of this project that is potentially so important to the economic well-being of our country.

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Post Office Box 191
Green Cove Springs, Fla. 32043
June 19,1978

The Hon. Pete V. Domenici
Senate Office Building
Washington, D. C. 20510

Dear Senator Domenici:

Your Subcommittee on Water Resources is scheduled to hold a hearing on June 23 to consider S. 1592, legislation to deauthorize the Cross-Florida Barge Canal Project.

Having had 46 years of experience in freight traffic work, the last 35 as an officer in the Freight Traffic Department of the Atlantic Coast Line Railroad, retiring as General Freight Traffic Manager, I feel that I am peculiarly well equipped to recognize the misrepresentations, misstatements and untenable conclusions in the cost-benefit studies and other efforts of the Army Corps of Engineers to obtain the job of building.

I am firmly convinced that the proposed canal would be unnecessary, unjustified and a terrific waste of hundreds of millions of taxpayers' dollars. I want, however, to make it abundantly clear that I have not been opposing this project as a representative of any railroad, having retired 14 years ago, but as a champion of the taxpayer.

I testified when Florida's Governor and Cabinet held a hearing on the question in December 1976 and voted 6 to 1 to request the Congress to deauthorize the project. I also prepared testimony to present before your Subcommittee on June 23 but am advised that, because I am only an individual and not a representative of any organization, I will not be permitted to appear and testify orally. However, I was told that if I would submit my written testimony it would be incorporated in the hearing record. I have, therefore, sent three copies to Chairman Gravel.

I am now sending you, as a member of the Subcommittee, a copy of my statement. It is the product of a great deal of study and research and I sincerely hope you will find time to read it since I think you will decide it is both interesting and helpful. It will provide you with a great deal of necessary information, much of which I doubt has come, or would otherwise come, to your attention, even from witnesses at the hearing.

It is also my sincere hope that your Subcommittee will approve S. 1592 and obviate unnecessarily adding to our tax burden.

Sincerely yours,

E. C. Hicks, Jr.

E. C. Hicks, Jr.

Presentation of E. C. Hicks, Jr., before Subcommittee on Water Resources, U. S. Senate, in Support of S. 1592, Legislation to Deauthorize the Cross-Florida Barge Canal Project - June 23,1978

I am E. C. Hicks, Jr., of Green Cove Springs, Fla., here to support S. 1592. I retired 14 years ago as General Freight Traffic Manager of the Atlantic Coast Line Railroad but my campaign against building the Florida canal is not, and has not been, as a representative of any railroad. It is solely at my own expense as a champion of the taxpayer. However, my 46 years of traffic experience, the last 35 as an officer, have equipped me, I think, to recognize the exaggerations, misstatements and untenable conclusions in the presentations made by the Corps of Engineers.

Why Two Canals Across Florida?

There never was any justification for building this canal across Florida. We already have one - the Okeechobee Waterway. When the Carolina Power and Light Company constructed its nuclear generating plant near Hartsville, S. C., the reactor, built at Chattanooga, Tenn., was loaded on a barge, floated down the Tennessee, the Ohio and the Mississippi, across the Gulf of Mexico, through the Okeechobee Waterway and up the Atlantic Intracoastal Waterway to Georgetown, S. C., where it was loaded aboard a freight train and moved to Hartsville. It weighed 640,000 pounds! Why should taxpayers spend hundreds of millions of dollars for a second canal?

Congressional Authorization - Reliance Upon Claim of National Defense

During World War II German submarines sank numerous coastwise oil tankers and unthinking people, including myself, began saying that, if we just had a canal across Florida, the oil could be moved by barge via protected inland waterway. On June 15,1942, the Chief of Engineers recommended construction of the canal "on basis of its value in time of war, together with the benefits to be anticipated in normal times." Therefore, apparently acting while under the excitement of so many ship sinkings, the Congress authorized it on July 23,1942, by Public Law 675, 77th Congress.

Project Authorized Without Economic Justification Being Established by the Corps of Engineers

An examination of House Document 109, 79th Congress, 1st Session, which con-

tains the results of a purported analysis and economic evaluation of the project, discloses that no economic justification was then established or even attempted by the Corps. This is confirmed by estimated average annual benefits having been stated in the document as $842,000 and the estimated average annual charges as $2,575,000, a cost-benefit ratio (although not stated) of only 0.187.

1946 Restudy - Myth of National Defense Exploded

The project was restudied by the Board of Engineers for Rivers and Harbors in 1946 but no economic justification was found to exist although the restudy increased the 1942 average annual benefits from $842,000 to $7,140,000. However, the latter figure included an item of $3,600,000 attributed to insurance against war losses and it had to be eliminated because the Joint Chiefs of Staff had stated that "*** the military aspects of the proposed problem (barge canal) are so limited that they should not be used as the primary basis for decision on this matter."

Even the Corps' August 1976 Restudy Report says, "The value of the Cross-Florida Barge Canal for the transportation of petroleum in wartime appears to be limited." Despite this, the Corps and other canal advocates persist in efforts to convince the public that the canal's value for national defense is one reason it should be built!

1958 Restudy - Corps' Disregard of Actual Performance in Making Unsupported Claims

Since the 1946 restudy could not stand up, the Corps produced another, dated January 10,1958. When the 1946 restudy had been examined by a committee of compe tent traffic analysts they showed that by no stretch of the imagination would 20 of the 27 commodities included in the benefit calculation move by barge. The Corps admitted that by omitting all of them from its 1958 restudy.

The same committee of experts made as thorough an analysis of the 1958 restudy as possible in the light of their handicap caused by the Corps' refusal to permit examination of the underlying data on which its computations and estimates had been predicated. Even without those records, the committee was able to develop enough data to prove the claims of tonnage to move and alleged transportation savings so

grossly exaggerated and so impossible of support that the restudy was utterly useless.

Although the Corps omitted from its 1958 restudy the 20 commodities which had been condemned in the 1946 restudy (979,350 tons) it added 18 new commodities (1,282,339 tons). Thereby, it increased the total tonnage less than eleven percent but, by changing type of traffic, it increased the estimated benefits by 131 percent.

No explanation for these radical changes in the articles of commerce was ever attempted but the 18 commodities so added were not representative of barged traffic. The Corps' own statistics showed that in 1956 a total of only 1,400 tons of these articles had moved over all six of the comparable waterways: Cumberland River; Intracoastal Waterway, Jacksonville to Miami; St. Johns River, Jacksonville to mouth; Ouichita River; Missouri River, Kansas City to mouth, and Savannah River, while 1,282,339 tons of the same commodities were forecast for the Florida canal alone.

The alleged per ton freight cost savings in the 1958 restudy were equally far-fetched. In 1955 the Chief of Engineers had testified before the Subcommittee on Public Works, U. S. Senate, 84th Congress, 1st Session, and reported the average savings per ton as of 1953 claimed for the then existing inland waterways, such as the Mississippi River System. In 1955 - and still in 1958 - they were the most current statistics of this kind.

Since the Corps was exceedingly well informed concerning the long-existing and reasonably consistent traffic patterns obtaining on the inland waterways and, as just shown, was cognizant of the average savings per ton claimed in 1953 for many of the waterways, as illustrated by the following table, it is amazing that the Corps could have produced such inflated estimates for the Florida canal. Clearly, the transportation savings were determined by use of indefensible tonnages and unrealistic unit measurements.

Waterways	Average Savings Claimed Per Ton 1946	1953	1958
Cross-Florida Barge Canal	$1.72	0	$3.99
Gulf Intracoastal Waterway	0	$1.99	0
Warrior River	0	1.89	0
Ohio River	0	1.46	0
Upper Mississippi River	0	1.45	0
Cumberland River	0	1.44	0
Middle Mississippi River	0	1.26	0
Illinois Waterway	0	1.15	0

Estimated Tonnages and Freight Savings in 1976 Restudy Report Also Grossly Overestimated

If the Corps of Engineers were forced to disclose the origin, destination and tonnage of, and rates applied to, each freight movement entering into its 1976 computation of transportation benefits, beyond doubt it would be found that much of the alleged tonnage would move in much lesser volume, if at all, and that many, if not most, of the barge rates that were computed, or estimated, for application on the tonnage were so much lower than could be operated that the savings were artificially inflated. For example:

Method Generally Observed by Corps in Constructing Barge Rates

Since the barge rate is determined by dividing the cost of moving the load by the tonnage of the lading, it follows that, if the barge must return empty, the cost, consequently the rate per ton, must be almost twice as high as if there were a pay load in each direction. Table III-1 of the section of the 1976 restudy report entitled "Evaluation of Transportation Economics" shows that if a fairly satisfactory rate of return loads could follow theoretical shipments of coal from Shawneetown, Ill., the rates might be $2.42 per ton lower than if there were a lesser average of return pay loads.

According to "Rate Analysis Methodology", April 1976, the ruling guideline was to assume that there would be a reasonably well balanced barge movement and of

regular volume. But that assumption is not tenable. The Corps makes no claim that tonnage on the canal would be reasonably well balanced. In fact, pages 34 and 35 of "Evaluation of Transportation Economics" say that for 1985 the estimated total bargeload equivalent movements eastbound are projected at 2,700 loads per year and the westbound annual bargeload equivalent movements are slightly less than 1,100 loads per year, creating a severe imbalance in traffic movements and requiring a substantial number (approximately 1,600) of empty barges in the westbound return. Pages 34 and 35 also say that for 2035, the total bargeload equivalent movements eastbound are projected at 6,610 loads and the westbound annual bargeload equivalent movements at 1,600 loads, thereby requiring approximately 5,000 empty barge movements per year through the barge canal. The traffic imbalance for the year 2035, it says, will be considerably greater than shown for the 1985 traffic movements.

Therefore, if canal traffic should amount to what the Corps claims - actually, there is little or no probability that it will come anywhere near that - the percentage of empty return hauls would be 41 in 1985 and 76 in 2035. Yet, not only were the barge rates constructed under the assumption that the eastbound and westbound tonnages would balance but apparently the same barge rates were applied in computing freight savings for both 1985 and 2035.

Estimates of Anticipated Use of Canal for Freight Transportation Greatly Overdrawn

The Corps of Engineers and other canal advocates have painted glowing pictures of what they claim will be substantial and growing tonnages of freight to be shipped on the Cross-Florida Barge Canal. Table 4, page 12, and Table 7c, page 22, of Final Economics Report, February 1977, forecast a movement of 18 different commodities, aggregating 5,290,000 tons in 1985,growing to 11,510,000 tons, more than double, in 2035, but this is not realistic. The chances of either such tonnages or such diversity of traffic materializing are extremely remote, if not nonexistent.

For many years Florida has had a number of inland waterways, built and maintained by the taxpayers at tremendous cost but absolutely free of charge to any

barge operator who may want to use them. Yet, the extent of their use has not been such as to warrant any such overoptimistic forecasts for the proposed canal.

During 1973-1976, the last four years for which statistics are published in the Corps' annual publications entitled "Waterborne Commerce of the United States", total tonnage moved on five Florida waterways combined averaged only 2,925,990 tons. Estimated tonnage for 1985 on the Cross-Florida canal alone 81 percent greater than the average annual tonnage on Atlantic Intracoastal Waterway, Jacksonville to Miami, St. Johns River, Jacksonville to head of navigation, St. Marys River, Withlacoochee River and Rice Creek! Moreover, no less than 95.8 percent of the total tonnage on these five waterways was petroleum. The diversity of such large tonnages as forecast just can't be realized.

Corps' Miserably Poor Record of Estimating Costs and Benefits

Why should the Congress now assume that the estimates of construction costs or of tonnages and savings it is asked to accept do not run true to form? Past Congressional Committees,after studying Corps reports, have made scathing criticisms, of which the following examples are presented:

Subcommittee on Deficiencies and Army Civil Functions, House of Representatives, 82nd Congress, 1st Session (1951), in regard to the Corps' restudy of the Tombigbee-Tennessee River project:

> "In computing the benefits to be derived from the proposed project, two prime factors are involved. The first one is, how much money per ton would be saved by using the proposed project, and the second one is, how much tonnage would move on it. The computations of the Corps with respect to both factors are exaggerated and *** cannot be supported ***"

Subcommittee of Committee on Appropriations, House of Representatives, 82nd Congress, 2nd Session, in regard to the Corps' restudy of the Missouri River project:

> "It suited the Corps' purposes to have a glowing picture of this project, and they made the desired glossy showing in the revised report. *** The whole thing is completely unreliable."

Committee on Appropriations, House of Representatives, 85th Congress, 2nd Session, (Report No. 1864):

> "In this same general connection, the Committee has noted the evident supersalesmanship on the part of some Corps personnel in whipping up local enthusiasm for projects which from the standpoint of local contributions and other aspects should never have been recommended favorably to the Congress. The Committee does not regard extra-curricular activities of this type as being either in line of duty or as constructive contributions to the execution of the water resources program."

Traditionally, the Corps has gone back to Congress for more and more money. In 1952 the Committee on Appropriations investigated the Corps' budget for the 182 projects it then had under construction and found that it exceeded by more than $3½ billion, or 124 percent, what the Congress had been told only a year earlier that the projects would cost.

The record has not improved with passage of years. You doubtless know that in 1976 Senator Proxmire awarded the Corps his "Golden Fleece of the Year" for underestimating the cost of 178 public works projects by $14 billion, a cost overrun of 110 percent. He said the navigation projects had a huge increase, including 316 percent for the Jacksonville harbor project and 321 percent for the Tennessee-Tombigbee Waterway. Without exception, he said, this was the worst record for mismanagement and cost growth in the entire government, making such other agencies as the Defense Department, HEW and General Services Administration look like "marvels of efficiency." Could it be that these tremendous overruns are not so much the product of inefficiency in estimating as the knowledge that, if the true costs were made known, the Congress would not authorize the projects and the Corps would not get the coveted job of building?

Dealing specifically with the Cross-Florida Barge Canal, the estimate as of 1957 was $170,100,000. By the time of the January 1958 restudy it had escalated to $184,368,000. In the summer of 1976 it was reported as $420,000,000, of which $350,000,000 was yet to be spent. However, by December 16th the Corps had to admit that much of the claimed transportation benefits would not materialize. Therefore, in order to attain a cost-benefit ratio of 1 to 1, it became necessary to reduce the estimate of construction cost so the estimate of amount yet to be spent was reduced to $250,000,000, a cost reduction of a hundred million dollars!

Corps' Refusal to Substantiate its Claims of Transportation Benefits by Allowing Inspection of its Underlying Data

As previously stated, those who analyzed the 1946 and 1958 restudies were severely handicapped and unable to bring to light all defects since the Corps adamantly refused to disclose the necessary information. The same difficulty was encountered

in analyzing the 1976-1977 restudy report.

Much discussion has centered around whether the cost-benefit ratio is 66 cents at interest rate of 6-1/8 percent or $1.24 (now revised to $1.00) at 2-7/8 percent. Acceptance of either figure would presuppose that the study contains no unsupported and erroneous assumptions of freight movements, no exaggerations, no padding of tonnage and no errors in estimates of what barge transportation costs or freight rates and charges for land transportation would be. The Congress and the public cannot make the dangerous assumption that there are no such defects. Nor can it be assumed that the final cost of construction will be what the Corps is now asserting.

How can the Congress accept the alleged cost-benefit ratios of either 1976 or 1977, or of any other restudy, when the Corps hides behind a screen of secrecy? By refusing to permit inspection of the data underlying its computations the Corps would make it impossible (except by detective work whose findings would be disputed) to show that any of the movements it forecasts will not materialize.

Although severely handicapped by this policy of the Corps, those who analyzed the 1946 and 1958 restudies were given at least the names and tonnages of the commodities and with only that were able completely to discredit both studies.

Apparently being afraid history would repeat itself, when it made the 1976 restudy public the Corps refused to disclose not only the origins and destinations and the rates used but the tonnages and even the names of some of the commodities so that they could be identified. It relies upon the Freedom of Information Act, which excepts from the requirement of inspection of public records "trade secrets and commercial or financial information obtained from a person and privileged as confidential."

In its report on the Act, the Senate said: "This exception is necessary to protect the confidentiality of information which is obtained by the Government through questionnaires or other inquiries but which would customarily not be released to the public by the person from whom it was obtained." Now just how confidential was the information about commodities and tonnages? It is submitted that the infor-

mation which the Corps is guarding so jealously is not the type contemplated by the Senate in its exception to the Act. How many prospective canal users would consider secret or confidential the fact that if the canal should be opened eight or ten years hence they might possibly use it? However, to hide behind the fiction of "confidentiality" all the Corps had to do was to say to those consulted, "Now we are going to treat everything you say as confidential." Certainly, that does not automatically constitute such information the type of confidential matter which the Congress must have had in mind.

The study is worthless without its underlying data and no credence can properly be placed in its conclusions unless all data are disclosed. Surely, the Congress and the public can not be expected to approve the expenditure of hundreds of millions of dollars on the strength of a bare, unsupported assertion that it is economically justified!

Coal to Jacksonville

There is a probability that oil-burning Jacksonville Electric Authority will begin burning two million tons of coal per year. If it could be shown that this coal would move by barge through the canal at a lower freight cost than by rail that would improve the cost-benefit ratio (the Corps and Congressman Chappell say it would be 1 to 1.27 instead of 1 to 1) but the Corps has admitted that there is "a source of coal that would not produce a cost savings by using barge transportation rather than rail." Therefore, apparently having no faith that barges would be used, coal was not included in the cost-benefit ratio computed by the Corps.

However, the prospect of such movement has great propaganda value and many pages of the restudy report discuss at considerable length the possibility of the movement taking place by barge. Table III-1, page III-17, of one of the many volumes of the Restudy Report shows what the Corps estimates as the probable bargeload and unit trainload rates from several points, including Shawneetown, Ill., and Clinton, Tenn., to Jacksonville, among other destinations.

From each origin there are two barge rates, a "low" rate, based on assumption

of one percentage of empty return movement, and a "high", based on a greater percentage of empty returns. The rate computed by the Corps as the probable barge rate is the average of the "low" and the "high". To Jacksonville the Shawneetown average barge rate is $2.50 per ton lower than what the Corps assumes the rail rate would be. But from Clinton the average barge rate is 61½ cents per ton higher than rail.

Notwithstanding that, certain canal advocates who would expect to derive personal gain if the canal were built can see only the Shawneetown comparison and have led many Jacksonville citizens to believe the coal would move by barge, would save J.E.A. $2.50 per ton, or $5million per year, and save each user of electricity about ten dollars per year on his electric bill. Thereby, quite a few supporters for building the canal have been gained locally.

General Morris testified at the April 21,1977, hearing held by Congressman Chappell on the Public Works for Water and Power Development and Energy Research Appropriation Bill, 1978, wherein the Congressman tried so desperately to build up the cost-benefit ratio and justify expenditure of hundreds of millions in his district. When asked to estimate savings by use of the canal for Jacksonville coal, the General ignored all origins except Shawneetown, created the impression that the coal would originate there and said, "Savings for coal shipments using the Cross Florida Barge Canal are as follows for a prospective movement from Shawneetown to Jacksonville, Fla.:" He then showed unit train rate of $9.70 and barge rate of $7.20, a saving of $2.50 per ton, and said it would amount to annual saving of $5 million. This would make the cost-benefit ratio 1-1.27 instead of 1-1, which is the best the Corps had been able to produce, even by use of interest rate of only 2-7/8 percent on the investment.

But what the General did not say, and what the Corps and other canal advocates have not said in their continuous efforts to "sell" the public on the project, is that, although Shawneetown is on the Ohio River and therefore produces the lowest possible barge rate, it produces no coal. The coal would have to be trucked at least 40 to 50 miles from the nearest mine at a minimum cost of around probably

$2.00 per ton which would reduce the spread, barge under rail, to 50 cents per ton even if the computed barge rates are not too low - which they undoubtedly are.

Something else the General didn't mention is that Jacksonville must burn low sulphur coal and that at the December 16-17,1976, hearing when Florida's Governor and Cabinet voted 6 to 1 to ask Congress to deauthorize the canal project, Chairman Preston Haskell of J.E.A. testified that the coal must come from the Tennessee - Kentucky area. Since the Corps' constructed rail rate from Clinton is 61½ cents per ton lower than its barge rate, this would mean that it would cost J.E.A. $1,230,000 more to use barge than to use rail. But here also, Clinton is a river point - not a coal originating point - and the cost of bringing coal there for forwarding by barge would further increase the advantage of rail over barge.

Notwithstanding all that, and notwithstanding that $2½ million had already been spent on the 1976-1977 restudy, Congressman Chappell directed (Tr. 26) on April 21, 1977, that the Corps go out and spend in addition "something under $300,000" on an effort to find additional economic justification, particularly confirmed movements of coal, for building the canal.

Aside from all the foregoing, if J.E.A. should begin burning coal and in the quantity mentioned, canal or no canal, the railroads would certainly publish unit train rates such as they have published for many power plants in Georgia and the Carolinas. Those rates would be of a measure that the barges, with their extremely circuitous hauls, could not afford to match. The barge canal would handle no coal and without it a cost-benefit ratio of 1 to 1 cannot be attained. In fact, it can not be attained even with the coal.

Allegation of New Industries Along Canal Route and $1.2 Billion Boost to Jacksonville's Economy

A number of canal supporters, particularly the counsel and the general manager of the Cross-Florida Barge Canal Authority (the latter a retired Army Corps of Engineers Colonel), the Barge Canal Counties Association and Congressman Chappell, have repeatedly asserted that,if built, it would result in an influx of industry

and thereby create 27,000 new jobs. Also, they say that the economy in the Jacksonville area would enjoy a boost of $1.2 billion a year. That these claims can't be anything more than a pipe dream is amply demonstrated by what follows.

Those making the claims point to the significant industrial development in the New Orleans-Baton Rouge area and imply that it is attributable to the navigation facilities afforded by the Mississippi River and the Gulf Intracoastal Waterway. Many of the Louisiana-Mississippi industries are producers of petroleum products, chemicals and their products. Actually, they were were built there because of the proximity of their raw materials, salt, sulphur and petroleum, just as the Ohio Valley steel mills, shipping by barge, were built where they are primarily because of the nearby coal mines. Florida has no salt, sulphur or coal mines, nor does it have any significant production of petroleum. The fact is that if the canal were built it would create few, if any, new industries.

Meta Systems Explodes 27,000-Job Myth and Exaggerated Claims of Economic Benefits to Jacksonville

Late in 1976 retiréd Corps of Engineers Colonel Giles Evans, general manager of the Canal Authority, made the claim for 27,000 jobs and boost of $1.2 billion in Jacksonville's economy as part of an ABC television interview in Jacksonville. The claims were based on his interpretation of two projections selected from the reports on the project made by Meta Systems, Inc., to the Army Corps of Engineers. These were the reports presenting Meta's overall assessment and summary of various components of the $2½ million study.

Florida's Attorney General Robert Shevin requested Meta Systems for its comment on Col. Evans' assertions. The reply, dated December 15,1976, from Mr. Robert P. Burden, chairman of the board and chief executive officer, is too lengthy to quote in full here but the following quotations therefrom prove that, to use a charitable term, Col. Evans. was overly enthusiastic in his representations. Meta Systems said:

> "In our opinion the method Colonel Evans applied in summarizing estimates drawn from our study and the inferences drawn from the summary may be misleading to some in the television audience.

"We state in our report (Appendix H, page H-1) that with respect to the thirteen-county area affected by the project 'no substantial industrial activities or other activities can be expected as a direct result of the completion of the canal, and that the increment of new industrial or other activity directly attributable to the canal will not be major in relation to the anticipated growth in the region.'

"Colonel Evans estimates the impact on personal income in Jacksonville is $1.2 billion per year -- more than three times what we have calculated in the example."

Even though the Meta estimates, prepared for the Corps, are less than a third of Col. Evans' claim, Meta's letter clearly states that they were based on "an optimistic expectation" embracing "two levels of optimism." One of them was that in the movement of interstate freight the canal would "be used to a substantial fraction of its design capacity." That was said by District Engineer Colonel Donald Wisdom on September 2,1976,to be at least 9,855 barge movements per year.

Since the canal would not handle any coal and the restudy report admits that it would not handle oil in any quantity, by no stretch of the imagination would it be used "to a substantial fraction of its design capacity". The estimates of Meta Systems itself were entirely too optimistic.

After hearing two days of testimony, pro and con, from some 140 witnesses, most of the "pro" having been directed principally to the allegation of 27,000 jobs and how that would help Florida, one of the Cabinet members, who sat with the Governor as judges, characterized this propaganda as "a cruel hoax on the Florida working man."

Opinions of Nationally Recognized Transportation Authorities

Representative of opinions expressed about the canal by nationally recognized transportation authorities,who testified against the project before Florida's Governor and Cabinet at the December 1976 hearing, was in the evidence presented by Professor Joseph Carroll. He is Professor of Business Administration Systems Division, Pennsylvania Transportation Institute, Pennsylvania State University, with a number of years' experience in evaluating navigation projects, done mostly by the Corps but also the Tennessee Valley Authority.

Professor Carroll said that to his mind the Florida canal represents clearly one of the worst investments he had ever seen, with absolutely no economic merit from the national point of view. Also, in the many cost-benefit analyses of water transportation projects reviewed in his 15 years as a transportation economist he had never, he said, with perhaps one exception, seen one so lacking in economic merit and never had he witnessed such a desperate effort on the part of the Corps of Engineers to make a silk purse out of a sow's ear.

I sincerely hope your Committee will reach the same conclusion and this ill-advised, expensive and practically useless project will be deauthorized.

I thank you.

TOWN OF INTERLACHEN
OFFICE OF THE MAYOR
INTERLACHEN, FLORIDA 32048

June 13, 1978

Senator Mike Gravel, Chairman
Committee on Environment and Public Works
Room 3317 Dirkson Senate Office Building
Washington, D.C. 20510

Dear Senator Gravel:

It is with shock and dismay that residents of the area near Lake Oklawaha read accounts of the possible deauthorization of the Cross Florida Barge Canal; the destruction of Lake Oklawaha, as we know it, and what seems to us the tragic destruction of what is now one of the better fishing and hunting areas in the State.

The forests which once bordered the old Oklawaha River are dead where they were flooded out. If the river were restored to its old channel, it would take well over 50 years to partially restore the old forest area.

We back the stand of the Florida Waterways Association, Inc. with regard to its position on the feasibility of the Canal itself, and consider the Canal to be environmentally sound.

Why do away with the start that has been made on a project once considered militarially desirable and potentially of considerable economic value? After all, the portion of the Canal completed has been paid for. It is believed that the destruction of the Canal and draining of Lake Oklawaha is both undesirable and inflationary.

Sincerely,

Joseph C. Stock

Joseph C. Stock, Mayor

cc: Senator Richard Stone
Senator Lawton Chiles
Congressman Bill Chappell
Congressman Bob Sikes
Congressman Charles Bennett
Congressman Don Fuqua
Congressman Sam Gibbons

FLORIDA DIVISION

THE IZAAK WALTON LEAGUE OF AMERICA

June 13,1978

Senator Mike Gravel,Chairman
Subcommittee on Water Resources
Committee on Public Works
4204 Dirksen Senate Office Building
Washington,D.C. 20510

Subject:Support for SB 1592
Deauthorization of the CFBC

Dear Senator Gravel:

The Florida Division,Izaak Walton League of America,strongly urges your committee to act favorably on SB 1592(deauthorization of the Cross-Florida Barge Canal).

Our organization,along with many other environmental organizations in the state of Florida,have long advocated this step.The Governor and the Cabinet of Florida,as well as our National Representatives support this action.

We feel that the people of Florida have spoken on this issue and it is their wish that the Cross- Florida Barge Canal be deauthorized.

Sincerely,

John A. Bartle,President
Florida Division,
Izaak Walton League of America
1409 21st Street West
Bradenton,Florida 33505

B. A. JENSEN
RESIDENTIAL
COMMERCIAL INDUSTRIAL
Masonry, Inc.

June 16, 1978

The Hon. Mike Gravel
Washington, D.C.

Dear Senator Gravel:

On June 23, 1978, you are scheduled, as committee chairman, to consider a bill proposing the deauthorization of the Cross Florida Barge Canal. It is my earnest and fervent hope that such deauthorization not be allowed.

It is my privilege to own 2-1/2 acres of land upon which I maintain a home in Marian county, Florida. In a very few years, following retirement, it will be my permanent address, thus my interest is a long term one.

When President Nixon stopped work on the canal project, it was held to be an illegal stoppage, but once stopped, it has never been restarted. The U.S. Army Corps of Engineers, as well as other federal agencies, have determined through several hearings that the project is environmentally and economically sound. My own research supports such contention. I have further discovered that the main source of opposition emanates from railroad interests, although most often expressed through surrogates.

This area vitally needs the continuation of the canal and certainly does not deserve to be left with the economic and environmental desolation which will occur if deauthorization is accomplished.

I urge you and your committee to abandon all attempts to deauthorize the canal and I request that you pursue its continuation.

Sincerely,

B. A. Jensen

B. A. Jensen
3300 Mt. Vernon Road S.E.
Cedar Rapids, Iowa 52403

LEAGUE OF WOMEN VOTERS OF FLORIDA
1035-S South Florida Avenue, Lakeland, Florida 33803
813/682-1636

PRESIDENT
Lois Harrison
VICE PRESIDENTS
Mary Anne Sherman
Dorothy Fulton
Eileen Belcher
SECRETARY
Florence Neidig
TREASURER
Lois Hoffman

July 22, 1978

Senator Mike Gravel, Chairman
Subcommittee on Water Resources
Committee on Public Works
4204 Dirksen Senate Office Building
Washington, D.C. 20510

Dear Senator Gravel:

The League of Women Voters of Florida supports the deauthorization of the Cross Florida Barge Canal. We support deauthorization because we believe that the beautiful Oklawaha River should be saved from further destruction and restored to its former condition. We support deauthorization because those of our members whose water comes from the Floridan Aquifer are concerned that their water supply will be jeopardized by completion of the canal.

We understand that an effort will be made in your subcommittee to amend SB 1592, incorporating into it several features of SB 1593. We favor this approach and urge your committee to amend SB 1592 to provide for an extension of the Ocala National Forest to include lands currently owned by the Canal Authority and to provide for interim management and federal purchase of those lands.

The people of Florida have shown time and time again that they consider the dollar price and the environmental price of the Cross Florida Barge Canal to be exorbitant. We hope that the 95th Congress will put this issue to rest once and for all. We urge every member of the Water Resources Subcommittee to support SB 1592.

Sincerely yours,

Lois Harrison cc
Lois Harrison
President

Carol Rist
Carol Rist
Director, Natural Resources
Land Use

cc: Senator Richard Stone
Senator Lawton Chiles

BOARD OF COUNTY COMMISSIONERS

MANGIN PEACOCK
CRESCENT CITY, DISTRICT 1
EDWARD B. FULGHAM
PALATKA, DISTRICT 2
ROBERT L. REVELS
EAST PALATKA, DISTRICT 3
JERRY B. KELLEY
FLORAHOME, DISTRICT 4
KELLEY SMITH, JR.
PALATKA, DISTRICT 5

PUTNAM COUNTY

Post Office Drawer 1374
PALATKA, FLORIDA 32077

RONALD E. CLARK, ATTORNEY
PALATKA
CHARLES H. HOOD
CLERK OF CIRCUIT COURT
PALATKA
JOHN A. SAMPSON, P.E.
ENGINEER
BRIAN E. MICHAELS
CODES ADMINISTRATOR AND
CHIEF BUILDING OFFICIAL

June 15, 1978

Ms. Ann Garrabrant
Water Resources Subcommittee
4204 Dirksen Senate Office Building
Washington, D. C. 20510

Dear Ms. Garrabrant:

Reference is made to the hearings scheduled for June 23, 1978 concerning S.1592 legislation to deauthorize the Cross Florida Barge Canal. At their regular meeting of June 13, 1978 the Putnam County Board of County Commissioners adopted a Resolution opposing S.1592 and recommending that the Cross Florida Barge Canal not be deauthorized, but instead go forward.

Enclosed with this letter are three copies of this Resolution and we ask that it be included in the record of the hearings on S.1592.

Sincerely,

FOR THE BOARD OF COUNTY COMMISSIONERS

Raymond B. Bunton
Director of Economic Development

RBB:paa
Enclosures
cc: Congressman Bill Chappell, w/one copy of Resolution

RESOLUTION

OF

THE BOARD OF COUNTY COMMISSIONERS

PUTNAM COUNTY, FLORIDA

WHEREAS, The Putnam County Board of County Commissioners has learned by news release of the hearings on Senate Bill 1592 for deauthorization of the Cross Florida Barge Canal, and

WHEREAS, the Board of County Commissioners believes that such deauthorization action would be detrimental to the citizens of Putnam County, Florida, and

WHEREAS, over the years the citizens of Putnam County, Florida have paid $484,611.85 for purchase of lands for the Cross Florida Barge Canal, and

WHEREAS, in 1971, when the then President Nixon halted the Cross Florida Barge Canal, the citizens of Putnam County had approved and constructed a Barge Port on the St. Johns River to take advantage of and support the economic growth anticipated because of the then under construction Cross Florida Barge Canal, and

WHEREAS, considering taxes, Barge Port construction costs, lost tax revenues because of the land procurred for the Cross Florida Barge Canal, and interest on our money during the meantime, the citizens of Putnam County have expended in excess of $3,000,000.00, and

WHEREAS, the citizens of Putnam County believe these expenditures were worthwhile to achieve anticipated and needed economic growth through construction of the canal, and

WHEREAS, the Board of County Commissioners and citizens of Putnam County still believe this is a good project which is both economically and environmentally sound.

NOW, THEREFORE, BE IT RESOLVED, By the Putnam County Board of County Commissioners and the Putnam County Port Authority, which body is governed by the same individuals, that the Cross Florida Barge Canal should not be deauthorized and should instead go forward in order that the $70,000,000.00 expended to date on the project not be wasted.

32-863 O - 78 - 28

BE IT FURTHER RESOLVED that this Resolution be presented at the hearings of the Water Resources Subcommittee of the Senate Committee on Environment and Public Works scheduled for June 23, 1978.

STATE OF FLORIDA,
COUNTY OF PUTNAM.

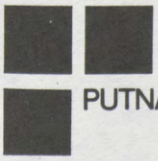
I, CHARLES H. HOOD, Clerk of the Circuit Court in and for Putnam County, Florida, and ex-officio Clerk of the Board of County Commissioners of Putnam County, Florida, HEREBY CERTIFY that the above and foregoing is a true and correct copy of a Resolution adopted by the Board of County Commissioners of Putnam County, Florida, in regular meeting assembled on the 13th day of June, A.D. 1978, and the same has been duly incorporated into the Minutes of said meeting.

IN WITNESS WHEREOF, I have hereunto set my hand and official seal this 13th day of June, A.D. 1978.

CHARLES H. HOOD
CLERK, CIRCUIT COURT
PUTNAM COUNTY, FLORIDA

(SEAL)

By Jean M. Davis
Deputy Clerk



PUTNAM COUNTY CHAMBER OF COMMERCE

June 19, 1978

Ms. Ann Garrabrant
Water Resources Subcommittee
4204 Dirksen Senate Office Building
Washington, D. C. 20510

Dear Ms. Garrabrant:

Reference is made to the hearings scheduled for June 23, 1978 concerning S.1592 legislation to deauthorize the Cross Florida Barge Canal. At their regular meeting of June 12, 1978, the Putnam County Chamber of Commerce Board of Directors adopted a Resolution opposing S.1592 and recommending that the Cross Florida Barge Canal not be deauthorized, but instead go forward.

Enclosed with this letter are three copies of this Resolution and we ask that it be included in the record of the hearings on S. 1592.

Sincerely,

For the Board of Directors,
Putnam County Chamber of Commerce

Craig S. Townsend

Craig S. Townsend
Executive Vice President

CST:jv
Enclosures
cc: Congressman Bill Chappell, w/ one copy of Resolution

RESOLUTION

OF

THE BOARD OF DIRECTORS

OF THE PUTNAM COUNTY CHAMBER OF COMMERCE

PUTNAM COUNTY, FLORIDA

WHEREAS, Senator Mike Gravel, Chairman of the United States Senate Subcommittee on Water Resources, of the Senate Committee on Public Works and Environment, is holding a hearing on Friday, June 23, 1978, at 10:00 A.M. to consider a Bill which would deauthorize the Cross Florida Barge Canal Project, and

WHEREAS, this Bill known as S.B. 1592, filed by Senators Chiles and Stone of Florida, is in furtherance of efforts by President Carter and Governor Reubin Askew of Florida to kill the project, and

WHEREAS, despite repeated testimony to House Public Works Committee Members by U. S. Army Corps of Engineers representatives that the project poses no significant environmental problems and that further admission by the "Corps" that their reports have ignored several pertinent economic benefits, and

WHEREAS, extensive studies by the U. S. Corps of Engineers and many other federal agencies have determined that the project is environmentally and economically sound, and

WHEREAS, this project was held to have been illegally stopped by then President Nixon and that since stopped has not as of this date been restarted, and

WHEREAS, this project is of significant economic importance since the announcement of the construction of several coal burning power plants in the eastern part of Florida, who without this Canal will have only one means of delivering the enormous tonnages of coal required, i.e., by rail, and that the power plants should have alternative means of delivery, and

WHEREAS, in the President's Environmental Protection Message of May 23, 1977, to the Congress of the United States there was included a recommendation to deauthorize the Cross Florida Barge Canal and to study adding the Oklawaha River to the Wild and Scenic River System, and

WHEREAS, by Resolution of June 21, 1977, the Governor and Cabinet of Florida formed the Florida Department of Natural Resources Task Force on the Cross Florida Barge Canal, for the purpose of recommending the best disposition and use of lands previously acquired for the Cross Florida Barge Canal with special emphasis on restoration of the Oklawaha River, and

WHEREAS, at the first meeting of the Department of Natural Resources Cross Florida Barge Canal Task Force, only courses for action for destruction of Lake Ocklawaha were considered in spite of objections of some appointed members of the Task Force, and

WHEREAS, the Congress of the United States, and not the President, will finally determine the fate of the Cross Florida Barge Canal, including Lake Ocklawaha, and

WHEREAS, Lake Ocklawaha has become a great economical and recreational asset in the Putnam County-Marion County area and has provided recreational facilities for hundreds of thousands of persons throughout the United States, including the handicapped, and

WHEREAS, the waters of Lake Ocklawaha could, when required, provide a much needed water supply resource to water short areas of Florida.

NOW, THEREFORE, BE IT RESOLVED, by the Board of Directors of the Putnam County Chamber of Commerce, in meeting assembled on the 12th day of June, A.D. 1978, as follows:

1. That extensive studies by the U.S. Army Corps of Engineers and other federal agencies have shown the Cross Florida Barge Canal Project to be economically and environmentally sound in spite of the fact that, through their own admission, reports have ignored several pertinent economic benefits, and
2. That consideration of only alternatives which will destroy the "project", including Lake Ocklawaha, are not in the best interests of the citizens of Putnam County and other adjoining counties, and further persons from all over the United States, and
3. That the Cross Florida Barge Canal is an important and needed project, particularly for hauling fuels to meet the energy needs of the future, and
4. That the Cross Florida Barge Canal Project, including Lake Ocklawaha, is a great asset to the people of Florida and of Putnam and surrounding counties and should be preserved, and do not believe the inclusion of that portion of the Oklawaha River in the Wild and Scenic Rivers System to be in the best interests of our people, and
5. That premises adopted by the Cross Florida Barge Canal Task Force are unrealistic and incorrectly assume that the Congress of the United States will deauthorize the Cross Florida Barge Canal and allow the destruction of Lake Ocklawaha and other canal facilities, and
6. That following such assumptions, in spite of the fact that stoppage of the project was held to be illegal following acts by President Nixon thereon found to be unconstitutional, appears to be similar in light of their constitutionality, and

7. That destruction of this project eliminates a valuable water resource available to the people of the State of Florida, requires

8. That this assembled Board of Directors of the Putnam County Chamber of Commerce this 12th day of June 1978, restate its opposition to the deauthorization of the Cross Florida Barge Canal.

PUTNAM COUNTY CHAMBER OF COMMERCE
Palatka, Florida

By _____
President

ATTEST:

_____
Executive Vice President

CROSS FLORIDA BARGE CANAL
STATEMENT
OF
JAMES S. RYAN
ADMINISTRATIVE DIRECTOR
SEMINOLE COUNTY PORT AUTHORITY

ASIDE FROM A FEW BRIEF COMMENTS RELATIVE TO THE SUPPORT OF CONSTRUCTION OF THE CROSS FLORIDA BARGE CANAL IN EARLIER YEARS, THIS OFFICE HAS PURPOSELY AVOIDED BECOMING INVOLVED IN THE EMOTIONAL MEETINGS AND DISCUSSIONS THAT HAVE BEEN CLEARLY IDENTIFIED AS POLITICAL IN NATURE - AND IN ALL PROBABILITY OF LITTLE SUBSTANCE.

IT IS NOW APPARENT THAT THE LONG DELAY IN RESTARTING THE CONSTRUCTION OF THE CROSS FLORIDA BARGE CANAL COUPLED WITH THE CONSTANT VERBAL BOMBARDMENT OF RADICAL POLITICAL ASPIRANTS AND/OR DOOMSDAY PROPONENTS, HAS CREATED A FINANCIAL DILEMMA THAT MAY IN FACT CONTRIBUTE TO THE EVENTUAL TOTAL DEMISE OF THIS MERITORIOUS PROJECT.

I REFER TO THE EARLY REPORTS OF A "QUESTIONABLE" COST/BENEFIT RATIO.

THE SEMINOLE COUNTY PORT AUTHORITY HAS NEVER CONTRIBUTED ANY MEANINGFUL DATA TO THE CORP OF ENGINEERS OR OTHER ORGANIZATIONS INVOLVED IN THIS FINANCIAL EVALUATION, BUT NOW WISHES TO EXPRESS OUR CONCERN AND SUBMIT THIS REPORT ALONG WITH OTHER RELATED MATERIAL, AND REQUEST YOUR

CONSIDERATION TO ALLOW NEW UP-DATED DATA, RELATIVE TO THE AFFAIRS AND PROMOTION OF THE PORT OF SANFORD, AND THE CENTRAL FLORIDA AREA, THAT IS NOW IN THE HANDS OF THE PRINTERS, - BUT WILL NOT MAKE THE "DEADLINE" ESTABLISHED FOR RECEIPT OF INFORMATION.

OUR SUBMISSION OF DATA FOR CONSIDERATION MAY BE ENTIRELY MEANINGLESS; IN THAT A CONSIDERABLE PORTION OF MATERIAL IS RELATIVE TO "AREA DEVELOPMENT, INCREASED JOB OPPORTUNITIES, POSSIBLE DIRECT FOREIGN TRADE, AND DIRECTLY RELATED ELEMENTS THAT CONTRIBUTE TO CONSERVATION OF ENERGY", AND SINCE THESE EXTREMELY HUMAN BENEFITS ARE UNFORTUNATELY CONSTRAINED FROM BEING INCLUDED IN THE RATIO ANALYSIS - OUR VERY CREATION, EXISTENCE AND FUTURE - MAY, IN FACT BE PURPOSELY AND TOTALLY OVERLOOKED OR GIVEN ABSOLUTELY NO CONSIDERATION.

IF SUCH AN UNJUST DETERMINATION IS FINALLY CONCLUDED BY CONGRESS - HOPEFULLY WITHOUT ANY ADVERSE COMMITMENTS OR COMMENTS FROM THE GOVERNOR AND CABINET OF THE STATE OF FLORIDA, AND WITHOUT CONSIDERATION FOR THE DIRE NEEDS OF LIGHT CLEAN INDUSTRIAL DEVELOPMENT IN THE STATE OF FLORIDA AND OUR HUMAN REQUIREMENTS; BUT YET IN FAVOR OF ANOTHER SANCTUARY FOR ALLIGATORS AND BIRD WATCHERS - THE PRESENT PRIORITIES OF MANKIND AND THOSE OF FUTURE GENERATIONS WILL MOST CERTAINLY BE CONSIDERED IN REVERSE ORDER.

WE, AT THE SEMINOLE COUNTY PORT AUTHORITY ARE RECOGNIZED AND PRACTICING ENVIRONMENTALIST; WE DO, HOWEVER, RECOGNIZE THAT MAN CANNOT BE ALLOWED TO REGRESS BACK TO THE STONE AGE.

DURING THE CONSTRUCTION PHASES OF THE PORT OF SANFORD EVERY RECOGNIZED AND KNOWN PRECAUTION WAS TAKEN TO PROTECT THE ENVIRONMENT AND TO DISTURB THE ECOLOGY AS LITTLE AS HUMANLY POSSIBLE, YET, STILL PROGRESS AND DEVELOP A FACILITY THAT WOULD BE IN HARMONY WITH NATURE AND BENEFIT MANKIND. THE GUIDELINES ESTABLISHED TO OBTAIN THESE MERITORIOUS ACHIEVEMENTS WERE RIGIDLY FOLLOWED AND THE RESULTING PRODUCT IS BEGINNING TO RECEIVE THE RECOGNITION THAT IT SO RICHLY DESERVES.

WE STATE "BEGINNING TO RECEIVE" - ; AND ALTHOUGH A TRUE STATEMENT, THE PORT OF SANFORD WILL NEVER ATTAIN THE STATUS ORIGINALLY ENVISIONED AS ITS FULL POTENTIAL IF UNSWERVING FANATICS CONTINUE TO DOMINATE THE ATTENTION OF PRESENT AND FUTURE DECISION MAKERS.

AS STATED IN OUR ONLY VERBAL PRESENTATION ON SEPTEMBER 28, 1976 DURING THE ORLANDO PUBLIC HEARINGS:

> ..."THE JUSTIFICATION, CREATION, FUNDING, (WITH FEDERAL DOLLARS), DEVELOPMENT AND CURRENT FUTURE EXISTENCE HAS ALWAYS BEEN BASED UPON 75% OF THE PORT OF SANFORD'S FEASIBILITY BEING TIED DIRECTLY TO THE COMPLETION AND OPERATION OF THE CROSS FLORIDA BARGE CANAL."

THOSE WERE NOT IDLE WORDS - THE DESIGN AND CONSTRUCTION OF ALL DOCKING FACILITIES TURNING BASIN, FUEL STORAGE FACILITIES, BULK UNLOADING AREAS AND IN FACT, ALL FACILITIES, WERE ACCOMPLISHED TO MEET STANDARDS THAT WOULD BE UTILIZED BY BARGE TRAFFIC THAT WOULD TRANSIT THE CROSS FLORIDA BARGE CANAL.

NOW THAT THE FIRST AND SECOND PHASES OF CONSTRUCTION HAVE BEEN COMPLETED, AND ARE ENTIRELY OPERATIONAL - AND THE TOTAL ASSESSED VALUATION OF THE PROPERTY AND FIXED ASSETS EXCEED FOUR AND ONE-HALF MILLION DOLLARS ($4,500,000.00), WE ARE BEGINNING TO FACE THE REALIZATION THAT PERHAPS THIS PROJECT AND THE EXPECTED PHENOMENAL RELATED HUMAN BENEFITS WILL NEVER BECOME A REALITY - AS THE MAJOR STIMULANT FOR ITS ORIGINAL CONSIDERATION MAY NOW BE SCRAPPED ALONG WITH MILLIONS AND MILLIONS OF OTHER TAX DOLLARS.

PART OF THE FACILITIES OWNED BY THE AUTHORITY ARE A PETROLEUM/CHEMICAL TANK STORAGE FARM CONTAINING FIFTEEN (15) INTER-CONNECTED VERTICAL STEEL TANK STRUCTURES, WHOSE TOTAL CAPACITY EXCEEDS A THREE AND ONE-HALF MILLION (3,500,000) GALLON STORAGE CAPACITY. WE ARE ALSO IN THE DEVELOPMENT STAGE OF INCREASING THIS CAPACITY TO APPROXIMATELY FIVE MILLION (5,000,000) GALLONS.

IT IS INTERESTING TO NOTE THAT DURING OUR ENTIRE OPERATION OF THIS FUEL TANK FARM FACILITY AND WITH THE HANDLING OF NUMEROUS FUEL BARGES - DURING ALL HOURS OF THE DAY AND NIGHT - WE HAVE NEVER HAD A SPILL OR ALLOWED ANY POLLUTANTS TO ENTER

THE WATERS OF THE ST. JOHNS RIVER, AND IN ALL PROBABILITY THIS RECORD WILL CONTINUE TO BE UNBLEMISHED DUE TO RIGID CONTROL STANDARDS THAT HAVE BEEN LONG ESTABLISHED.

IT IS ALSO INTERESTING TO NOTE, THAT EVER SINCE CONSTRUCTION BEGAN IN 1968 - AND THE ENTIRE AREA WAS DREDGED, FILLED, WORKED, ETC., - THE FISHING IN THE ADJACENT ST. JOHNS RIVER AND THE NEWLY CREATED PORT SLIP, HAVE BEEN RECOGNIZED AS "OUTSTANDING FISHING AREAS". OUR BIGGEST PROBLEM STEMS FROM PLEASURE AND COMMERCIAL FISHING INTERESTS ENCROUCHING ON PORT OPERATIONS, DURING ACTIVE MARITIME MOVEMENTS.

IT HAS BEEN POINTED OUT BY OTHER AUTHORITIES - IN MUCH CLOSER CONTACT WITH RELATED BENEFITS - THAT THE FOLLOWING UNQUESTIONABLE BENEFITS WILL ALSO ACCRUE WHEN THE CROSS FLORIDA BARGE CANAL IS COMPLETED.

WE STRESS THEIR RECOGNITION, ALTHOUGH WE FULLY REALIZE THAT THEIR INCLUSION IN THE COST/BENEFIT RATIO FORMULA HAS BEEN PREJUDICED - AND CONSEQUENTLY WILL BE GIVEN NO CONSIDERATION - ALTHOUGH IN REALITY ARE OF EXTREME VALUE TO MANKIND.

(A) NATIONAL DEFENSE CONSIDERATIONS

(B) REDUCED TRANSPORTATION COSTS

(C) ENERGY SAVINGS

(D) ENERGY SECURITY

(E) REALISTIC CONSIDERATION OF COAL AS FUEL FOR ELECTRICITY GENERATION.

(F) REDUCED FEED AND GRAIN COSTS FOR REDUCTION IN RISING MEAT, MILK AND OTHER DAIRY PRODUCTS.

(G) JOB OPPORTUNITIES - DURING AND AFTER CONSTRUCTION

(H) OUTSTANDING RECREATIONAL AND SPORT ACTIVITY AREAS

(I) POSSIBLE RETARDED URBANIZATION

(J) GROWTH AND COST SAVINGS FROM BARGE MOVEMENTS

...THESE PHENOMENAL BENEFITS ARE STRANGELY EXCLUDED FROM CONSIDERATION, - COUPLED WITH THE INCLUSION OF OTHER SUCH NEGATIVE COMPONENTS AS:

(A) CONSERVATIVE TRAFFIC ESTIMATES, AND

(B) CORP OF ENGINEERS GENERAL CONSERVATISM, AND

(C) OBSTRUCTIONS BY "DEDICATED" ECOLOGISTS WITH $35.00 TO FILE A CLASS ACTION SUIT, BUT WITHOUT ANY OF THE RESPONSIBILITIES TO THE CITIZENS AND TAXPAYERS FOR PROJECT COST INCREASES DUE TO PROLONGED OR ILLEGAL CONSTRUCTION DELAYS.

UNFORTUNATELY, THE CROSS FLORIDA BARGE CANAL HAS FELL VICTIM TO ALL OF THESE ADVERSE ELEMENTS, BUT RECEIVED CONSIDERATION FOR NONE OF THE REASONABLE BENEFITS THAT THE CORP OF ENGINEERS ARE CONSTRAINED BY LEGISLATIVE MANDATE FROM INCLUDING IN THE RATIO.

IN SUMMARY: WE, AT THE SEMINOLE COUNTY PORT AUTHORITY, ENVISION A POSITIVE GROWTH OF MARITIME ACTIVITIES RELATED TO THE OPERATIONS OF THE PORT OF SANFORD; INCREASED EMPLOYMENT OF OUR CENTRAL FLORIDA CITIZENS WHO CURRENTLY EXPERIENCE AN UNEMPLOYMENT FIGURE OF 10.5% TO 11%; ENCOURAGEMENT OF LIGHT CLEAN INDUSTRY TO AN ECONOMICALLY DEPRESSED AREA; OVERALL IMPROVEMENT OF THE GENERAL ECONOMY - ALL WITHOUT ANY DANGER OR UNPREDICTABLE ADVERSE EFFECT ON THE ECOLOGY OR THE ENVIRONMENT.

SIERRA CLUB
FLORIDA CHAPTER

203 Lake Pansy Drive
Winter Haven, Fla. 33880

June 16, 1978

Senator Mike Gravel, Chairman
Subcommittee on Water Resources
Committee on Public Works
4204 Dirksen Senate Office Building
Washington, D. C. 20510

RE: Support for SB 1592 -- Deauthorization of the CFBC

Dear Senator Gravel:

Halting the Cross Florida Barge Canal has been the top priority of the Florida Chapter of the Sierra Club for at least the last ten years. We completely support SB 1592 which is sponsored by both Senator Lawton Chiles and Senator Richard Stone.

Deauthorization of the CFBC will lay at rest once and for all this costly mistake.

The Florida Defenders of the Environment has been asked to represent the various conservation groups in the State of Florida in this project. They truly reflect the thoughts of The Florida Chapter of the Sierra Club in their testimony.

Sincerely,

Richard L. Coleman, Chairman
Florida Chapter, Sierra Club

cc:Florida Defenders of the Environment, Inc.
Senator Richard Stone
Senator Lawton Chiles

National Wildlife Federation

1412 16TH ST., N.W., WASHINGTON, D.C. 20036 Phone: 202—797-6800

July 27, 1978

The Honorable Mike Gravel
Chairman
Subcommittee on Water Resources
Committee on Environment and Public Works
4204 Dirksen Bldg.
Washington, DC 20510

Dear Mr. Chairman:

The National Wildlife Federation respectfully requests that this letter be included in the hearing record on S. 1592, legislation to deauthorize the Cross-Florida Barge Canal. We regret that we were unable to testify at the July 26th hearing in person as we strongly support the proposed legislation and hope that the Subcommittee will lay to rest, once and for all, a water project now so clearly without merit.

Attached is a letter written by me to the Governor of the State of Florida outlining the Federation's objections to the proposed canal. Rather than belabor the points made in that letter, I would simply add here that completion of the project is opposed not only by the President and the U.S. Army, but by the Governor of the state, the Florida Cabinet, both of the state's U.S. Senators, and by our affiliate in Florida, the Florida Wildlife Federation, among others. It seems to us that this kind of opposition leaves no room for anything but deauthorization of the canal.

In addition to supporting S. 1592, I would like to put NWF on record as supporting S. 1593, legislation which would provide for a study of certain segments of the Oklawaha River for possible addition to the National Wild and Scenic Rivers System and for adjustment of the boundary of the Ocala National Forest.

Thank you, Mr. Chairman, for providing us with this opportunity to present our views.

Sincerely yours,

THOMAS L. KIMBALL
Executive Vice President

National Wildlife Federation

1412 16TH ST., N.W., WASHINGTON, D.C. 20036 Phone 202—797-6800

December 6, 1976

Honorable Reubin Askew, Governor
The Capitol
Tallahassee, Florida 32304

Dear Governor Askew:

I understand that you will be deliberating the fate of the Cross Florida Barge Canal on December 16 and 17, 1976. I would like to join with our Florida affiliate, the Florida Wildlife Federation, and express the National Wildlife Federation's strong opposition to the completion of this economically and environmentally damaging project.

There are a number of reasons for our opposition, which I will outline briefly.

First, the canal, based on current economic estimates, would cost appreciably more than it will produce in all forms of benefits. There is little evidence that the completion of the canal would attract industry or significantly boost employment. Recreational benefits have been greatly exaggerated and are actually less than the benefits to be gained from leaving the area in its original condition. On the bottom line, only a limited number of shippers would be the beneficiaries of this costly endeavor.

Second, scientific reports indicate that completion of the canal will have a significantly harmful impact on the area's wildlife and fisheries. Explosive growth of water weeds in the canal impoundments, already occurring, cause a serious decline in fisheries. Canal impoundments will be far less productive than the free-flowing rivers they replace. Ecosystem disturbances will be particularly detrimental to endangered wildlife. Florida's unspoiled free-flowing rivers and associated wildlife habitats already are scarce.

Third, the canal would have harmful impacts on the area's water supply. It would intrude into the Floridan aquifer which provides the region's fresh water supply. According to the U.S. Geologic Survey, "(w)e agree that the potential for contamination exists and have so stated explicitly and in detail." U.S.G.S. also noted "that relatively serious long-term water problems are expected in several reaches of the canal." This canal would enter into direct competition with domestic, industrial, and agricultural consumers. As their demands increase, there will be insufficient water to float barges and serve the non-canal users at the same time. During periods of drought, competition would be particularly severe.

Finally, the canal, as designed, would create a number of hydrologic problems. For example, the Eureka Dam and Lock retard free flowage of the Oklawaha River during periods of high water. This increases the duration and extent of temporary flooding with resulting damages in the floodplain. The canal design also fails to allow for extreme fluctuations of the water level in the reservoirs while the canal is operating. The designed impoundments, would require periodic weed management activities necessitating closure of the canal. In sum, the canal is a bad economic investment and an environmental disaster.

I urge the Florida Cabinet to oppose completion of the Cross Florida Barge Canal and to support restoration of areas already disturbed by previous work.

Sincerely,

THOMAS L. KIMBALL
Executive Vice President

cc: Honorable Robert L. Shevin, Attorney General
Honorable Bruce A. Smathers, Secretary of State
Honorable Gerald Lewis, State Comptroller
Honorable Ralph D. Turlington, Commissioner of Education
Honorable Bill Gunter, State Treasurer
John C. Jones, Executive Director, Florida Wildlife Federation

STATEMENT

By Vernon Behrhorst
President of the Water Resources Congress
Before the
Subcommittee on Water Resources
Committee on Environment and Public Works

Speaking on behalf of Water Resources Congress (WRC), a nation-wide organization of water resource interests, we urge you to reject S.1592.

WRC for years has supported prompt completion of the Cross Florida Barge Canal (CFBC). This project is an essential component of the Nation's Inland Waterway System, constituting a vital intercoastal connecting link between Gulf and Atlantic Intracoastal systems.

Chief of Engineers, in recent statements to Congressional Committees and to various water resources gatherings, has emphasized that the Nation needs and deserves a first-class waterway transportation complex to help accomodate the continually burgeoning growth in bulk commodity freight movements. Obviously, the CFBC will facilitate logical development of this essential waterway complex. We are glad to see that the Corps finally is getting an overall system study underway--with its kick-off public meeting in June of this year.

This is a National project--not just a matter of local Florida interests; and it should not become a victim of sectional Florida politics.

WRC has placed CFBC high on its list of projects of National urgency--WRC's highest category. My primary responsibility is Administrator for the Louisiana Coastal Commission. Louisiana has the largest area of coastal marsh land and swamps in the United States. Of great concern to me is the concept of "national interest" contained in the Coastal Zone Management Act. In Louisiana, we consider navigation and flood control to be matters of national rather than state or local interest, and the judgement of the Congress, and not the state or local interest, should prevail. The same is true for the Cross Florida Barge Canal.

Careful analysis of Corps' Environmental Impact Statement and Restudy report, and review of Corps' testimony to the House Appropriations Committee, verify time and time again that this project is engineeringly feasible; creates no significant environmental impairments; and, when evaluated in conformance with Congressional dicta and normal Corp procedures, possesses a very favorable Benefit/Cost ration which amply justifies prompt completion.

WRC is concerned that CFBC project is suffering the same sort of frenzied and unreasoning attack by environmental activists

and their Administration partisans as experienced by projects such as the DICKEY-LINCOLN and GARRISON DIVERSION.

We note the constant ill-advised attacks upon inland waterways with assertions of environmental degradations. I'm personally intimately familiar with the Gulf Intracoastal Waterway through the Coastal marshes of Louisiana. This waterway handles over 100 million tons of traffic per year. It cuts right through wild life preserves and refuges in Louisiana and Texas. This waterway and its traffic remain compatible with the wild life and recreational areas. Recent articles in the National Geographic have reported these aspects of the Gulf Intracoastal and the Kerr-McClellan Waterway. We can count on the Cross Florida Barge Canal showing similar characteristics.

We thank you for your consideration.



FLORIDA CHAPTER
OF
THE WILDLIFE SOCIETY
P. O. Box 218
Ft. McCoy, Florida 32637

19 June 1978

Senator Mike Gravel, Chairman
Subcommittee on Water Resources
Committee on Public Works
4204 Dirksen Senate Office Building
Washington, D. C. 20510

Subject: Support for SB 1592 -- Deauthorization of the Cross Florida Barge Canal (CFBC)

Dear Senator Gravel:

The Florida Chapter of THE WILDLIFE SOCIETY, INC. (FCTWS), since its inception in 1968, has addressed itself to the issue of the Cross Florida Barge Canal. Based on our review of the anticipated impacts we have consistently taken a stand in opposition to the project. Most recently, based on a $2.5 million restudy effort culminating in an Environmental Impact Statement (EIS), the FCTWS has adopted an "ecopolicy" (attached) stating our opposition to the proposed construction and supporting deauthorization of the project as well as restoration of that portion of the Oklawaha River presently occupied by Rodman Reservoir.

I believe that the FCTWS is in an excellent position to comment on this project. We are a professional organization of wildlife biologists and natural resource managers. We have been reviewing this project for almost 10 years. Several of our members held key positions on the Wildlife Study Team during the recent restudy. We have reviewed all of the restudy reports and the Final EIS intensively.

The CFBC has been the subject of one of the most extensive environmental impact studies ever conducted on a federal water works project. Based on the outcome of that study the Governor and Cabinet, State of Florida, numerous Federal and State agencies, and the U. S. Army Corps of Engineers recommended that the project be terminated. Failure of Congress to deauthorize the project after such an expenditure of time and money, considering the findings of the restudy, would be a travesty.

We are pleased that Drs. David Anthony and John Kaufman of the Florida Defenders of the Environment (FDE) will be testifying before your Subcommittee on June 23. I have reviewed their testimony and found it to be consistent with the views of our organization. FDE has the full support of the FCTWS in this endeavor.

We urge your Subcommittee to take rapid and favorable action on SB-1592 and appreciate having had the opportunity to provide input to your deliberations.

Sincerely,

Nicholas R. Holler, President
Florida Chapter of
THE WILDLIFE SOCIETY, INC.

cc: Lawton Chiles
Richard Stone

JOHN P. McKEEVER
P.O. BOX 1450 • OCALA, FLORIDA 32670

June 20, 1978

Senator Michael Gravel
Senate Office Building
Washington, D.C.

Dear Senator Gravel

I respectfully request that this letter be included in the record of the June 23, 1978, hearing to be conducted by your subcommittee on Senate Bill 1592.

As evidence at that hearing may disclose, I am the Chairman of the Board of Directors of the CANAL AUTHORITY OF THE STATE OF FLORIDA, the quasi-public corporation created by Chapter 374, Florida Statutes, to acquire the right of way for and cooperate in construction of, the Cross-Florida Barge Canal.

The views expressed herein, however, are my own and are not intended as representative of the view of the Board of Directors or any of the other four members thereof.

I oppose adoption of Senate Bill 1592 at this time.

I urge, as an alternative, adoption of Senate Bill 1593.

As the testimony and evidence presented to your subcommittee should disclose, the Canal Authority of the State of Florida, the United States Corps of Engineers and the United States Forest Service presently own approximately 56,000 acres and hold easements over an additional 14,000 acres designated for use incident to construction of the Cross-Florida Barge Canal. Approximately $13,000,000 has been expended in acquisition of those lands over almost four decades, much of the cost of acquisition having been borne by the ad valorem taxpayers of the six Florida counties through which the Canal was to pass.

As the testimony to the subcommittee should further disclose, the lands acquired for the Canal include environmentally sensitive areas of the Oklawaha and Withlacoochee River valleys and, as a result of construction to date, include Lake Oklawaha, a significant outdoor recreational facility on the lower Oklawaha River.

Passage of Senate Bill 1592 this year will, in all probability, doom any hope of retention of public ownership of any portion of the lands previously acquired for the Canal and, as significant, cause a reversion of those lands to private ownership under circumstances which would preclude any hope of recovery, by the contributing counties, of the millions invested in the Canal.

There are today pending, in the Courts of Florida, two suits against the Canal Authority wherein former landowners seek recovery of lands acquired by the Authority for construction of the Canal. In one, a Final Judgment has been entered adjudging the landowners entitled to recover the land should the Congress deauthorize the Canal (the judgment has been appealed by the Canal Authority). Recently, an attorney who was active in condemnation litigation a decade ago announced that he had "over 300" former landowners prepared to sue for return of "their" land "when the Canal was deauthorized".

In addition, as evidence available to the subcommittee should disclose, a substantial portion of Lake Oklawaha is not "owned" by either the Canal Authority or Corps of Engineers. Rather, it is on lands in which the Canal Authority holds easements specifically acquired for purposes of construction of the Canal. Arguably, deauthorization of the Canal will cause immediate termination of the easements and reversion of that land (and substantial portions of the North bank of the Oklawaha River) to private ownership.

As testimony to the subcommittee may not disclose, much of the existing Canal right-of-way lies in Marion County, Florida, which has no zoning or land use regulations in the areas of the right-of-way. Thus, reversion of the land to private ownership would (and will) result in uncontrolled development of environmentally sensitive areas.

Ironically, much of the opposition to the Canal arises from those who oppose its impact on the Oklawaha and Withlacoohee Rivers. In light of the probability of uncontrolled intensive private development should Senate Bill 1592 pass, the Canal opponents' "victory" may be pyrrhic.

I "hold no brief" for completion of the Cross-Florida Barge Canal. Its uncertain environmental impact and dubious economic benefit strongly suggest abatement of its completion. If, however, it would be "irresponsible" to complete the Canal, it would be equally "irresponsible" to irrevocably abandon the Canal as an authorized project until adequate provision had been made for a disposition of the lands and facilities acquired for the Canal that comports with the interest of the public and the contributing counties.

I am reliably advised that Secretary of Agriculture Bergland and Secretary of the Army Alexander, in their recommendations to the President, have recommended nine specific "actions" be taken with respect to the Cross-Florida Barge Canal, only one of which was termination of authority for further construction (the purpose of Senate Bill 1592). Unfortunately, adoption of Senate Bill 1592 in this session of the Congress may well obviate the possibility of the other eight recommended actions being available.

There have been no funds appropriated for nor construction undertaken with respect to the Canal since 1971. So long as Congress appropriates no money, there is no immediate threat to the environment nor possibility

of economic loss. There is, in short, no compelling need for passage of Senate Bill 1592 in this session. There is, however, a compelling need that it not be passed until adequate provision can be made by the appropriate state and federal agencies for disposition of the Canal assets.

Yours very truly,

John P. McKeever

JPM:mw

cc: Hon. Reubin O'D. Askew
Senator Lawton Chiles
Senator Richard Stone
Congressman William V. Chappell
Ms. Kathy Fletcher

THE WILDLIFE SOCIETY
7101 WISCONSIN AVENUE, N.W. SUITE 611
WASHINGTON, D.C. 20014
PHONE: (301) 986-8700

FRED G. EVENDEN
Executive Director

HARRY HODGDON
Field Director

August 8, 1978

The Honorable Mike Gravel, Chairman
Subcommittee on Water Resources
Committee on Public Works
4204 Dirksen Senate Office Building
Washington, D.C. 20510

RE: Deauthorization of the Cross Florida Barge Canal (S. 1592)

Dear Senator Gravel:

The Wildlife Society favors deauthorization of the Cross Florida Barge Canal and applauds the efforts of Senators Lawton Chiles and Richard B. Stone to terminate the project.

The Wildlife Society is an international organization of about 7,000 members representing all segments of the wildlife profession. Our principal objectives are: 1) to develop and promote sound stewardship of wildlife resources and of the environments upon which wildlife and humans depend; 2) to undertake an active role in preventing human-induced environmental degradation; 3) to increase awareness and appreciation of wildlife values; and 4) to seek the highest standards in all activities of the wildlife profession.

Within this framework the Florida Chapter of The Wildlife Society has reviewed the Cross Florida Barge Canal for nearly 10 years and several members of The Society held key positions on the Wildlife Study Team during the 1974-1976 restudy.

You have a letter from Nicholas R. Holler, President of the Florida Chapter of The Wildlife Society dated 19 June 1978, in which he presented the chapter's opposition to future construction and supported deauthorization of the Cross Florida Barge Canal, as well as restoration of that portion of the Oklawaha River presently occupied by Rodman Reservoir.

The Wildlife Society is in accord with all that Florida Chapter President Holler expressed in his letter to you.

1. The Wildlife Society opposed completion of the Cross Florida Barge Canal because of its predicted adverse ecological impacts.

2. Supports deauthorization of the Cross Florida Barge Canal.

3. Favors restoration of that portion of the Oklawaha River ecosystem presently occupied by Lake Oklawaha.

4. Encourages a study of the Oklawaha River for potential addition to the National Wild and Scenic Rivers System.

Thank you for the opportunity to comment on this legislation. We request that this letter be included in the record of the hearings that you conducted on 26 July 1978.

Sincerely,

Harry E. Hodgdon

Harry E. Hodgdon
Field Director

HH:mm

cc: The Honorable Lawton Chiles
The Honorable Richard B. Stone

western union **Telegram**

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PMS THE HONORABLE MIKE GRAVEL

CAPITOL ONE DC

SUBJECT SB 1592: RE DISMANTLING AND DEAUTHORIZATION OF THE CROSS FLORIDA BARGE CANAL.

DEAR SENATOR GRAVEL
WE HAVE JUST BEEN INFORMED TODAY THAT HEARINGS ARE SCHEDULED BY THE SENATE ON SB 1592 TO BEGIN AT 10AM TOMORROW, WEDNESDAY JULY 25 1978 IN WASHINGTON AND THE SPEAKING TIME AND SPEAKERS HAVE BEEN SEVERELY LILITED.

DUE TO THE SHORTNESS OF NOTICE AND SPEAKER LIMITATION REPRESENTATION FROM CITRUS COUNTY IS UNABLE TO BE PRESENT TO MAKE A STATEMENT BEFORE THESE HEARINGS.

ACCORDINGLY, WE RESPECTFULLY ASK THAT THIS MEASSAGE BE READ INTO THE RECORD BY YOU ON OUR BEHALF.

CITRUS COUNTY HAS A LONG AND VENERABLE RECORD OF SUPPORT AND ASSOCIATION WITH CROSS FLORIDA BARGE CANAL. THE UNITY OF THE VORIOUS CLUBS, CHAMBERS OF COMMERCE, AND SERVICE ORGANIZATIONS THROUGHOUT THE ENTIRE COUNTY IS OUTSTANDING IN SUPPORTING THIS COUNTY BOARD OF COMMISSIONERS.

WE STRONGLY OPPOSE DISMANTLING AND DEAUTHORIZATION OF THE CROSS FLORIDA BARGE CANAL AND CONTINUE OUR SUPPORT OF ITS COMPLETION.

DESTRUCTION OF LAKE OCKLAWAHA WOULD BE A MINDLESS TRAVESTY OF JUSTICE TO GENERATIONS YET TO COME, THE CANAL LANDS SHOULD REMAIN INTACT AS PRESENTLY OWNED, WITH LEASE BACKS TO INDIVIDUAL COUNTIES FOR DEVELOPMENT OF THEIR FULL RECREATIONAL POTENTIAL.

SB 1592 SHOULD, THEREFORE, NOT BE FAVORABLY CONSIDERED. THIS ACTION APPROVED IN REGULAR MEETING THIS 25TH DAY OF JULY 1978
GENE HOOD, CHAIRMAN, BOARD OF CITRUS COUNTY COMMISSIONERS
CITRUS COUNTY FLORIDA
COURT COURT HOUSE INVERNESS FL 32650

09:26 EST

MGMCOMP MGM

TWIN TOWERS OFFICE BUILDING
2600 BLAIR STONE ROAD
TALLAHASSEE, FLORIDA 32301



REUBIN O'D. ASKEW
GOVERNOR

JOSEPH W. LANDERS, JR.
SECRETARY

STATE OF FLORIDA

DEPARTMENT OF ENVIRONMENTAL REGULATION

September 15, 1978

Honorable Mike Gravel
Chairman
Subcommittee on Water
Resources, Environment and
Public Works Committee
Room 4204
Dirksen Office Building
Washington, D. C. 20510

Dear Senator Gravel:

I appreciate the opportunity to have provided testimony before your subcommittee last month, regarding the Cross-Florida Barge Canal. Deauthorization of the canal, as you are aware, is a vital matter in our state.

In listening to other testimony on July 26, 1978, I recognized what I consider to be a number of fallacies regarding the canal and its impacts. I have asked my staff to analyze these arguments, and I would like to take this opportunity to clarify, in conveyance of their report, several of the more important issues. If possible, I would appreciate your inserting this report into the record. Should that no longer be possible, please include it in your files. I would be pleased to discuss other issues or any particular issue in greater detail should the opportunity arise.

Sincerely,

Joseph W. Landers, Jr.
Secretary

JWL/bs

Enclosure

cc: Honorable Lawton Chiles
Honorable Richard Stone
Ms. Carol Shaskan

THE CROSS-FLORIDA BARGE CANAL
ISSUES RAISED DURING THE SENATE PUBLIC WORKS
HEARING ON JULY 26, 1978

Economics

It was stated that the Cross-Florida Barge Canal is economically sound.

1. Because the canal would constitute essentially a 110 mile conduit through the central region of the state, most of the transportation benefits proposed would accrue to states other than Florida, while all of the canal's environmental costs and other damages would fall directly upon the State of Florida.

2. The Meta Systems report: Socio-Economic Evaluation stated that, "the canal will not substantially change the ultimate pattern of development of the region...the region is unlikely to experience industrial growth with or without the canal..."

3. Actual construction costs of Corps public works projects have been shown to exceed cost estimates used for B/C justification from 80 to 110 percent.

4. A legal interest rate of 2 7/8 percent was used to calculate a B/C ratio of 1.00 for the final upland alignment, while the current legal rate of 6 7/8 percent would have yielded a B/C ratio of 0.63. Sunk costs were included in the Corp's B/C ratio because the project is considered on-going; if it were to be considered a new project, sunk costs could be eliminated, but the 6 7/8 percent interest rate would have to be applied.

5. The Corps has not assigned any value whatsoever to the aesthetic, recreational, wildlife, and water resources that would be destroyed by the construction and operation of the canal. Costs such as pollution of waterways or the aquifer system have been placed in a category of "environmental risks," and thus have not been treated as costs at all.

6. Not only have benefits from recreation and fishing been overstated, but they would represent 100 percent transfers of benefits from other regions rather than net benefits. Transportation benefits, as proposed, are entirely hypothetical.

7. Project B/C ratios of 5 to 1 or more, claimed by canal proponents, are unrealistically high because they would be based on the inclusion of benefits from area redevelopment, regional economic benefits, contingency benefits, and the movement of coal by barge. The Corps excluded these benefits from their B/C calculations because they could not be justified.

Environment

It has been stated that no further damage to the environment would result from the completion and operation of the canal.

1. Overwhelming evidence to the contrary was presented during the December, 1976 Cross-Florida Barge Canal hearings before the Governor and Cabinet of the State of Florida.

2. Some 75 percent of the project, including two of the most environmentally sensitive regions - the upper Oklawaha River Valley and the Summit Reach, have yet to be completed. Enormous environmental damages have already resulted from completion of only 25 percent of the project.

Water Supply

It has been stated that the canal would provide water storage, enough to supply a city the size of St. Petersburg.

1. A finished Cross-Florida Barge Canal would constitute a mammoth, inefficient user of freshwater in the state.

2. Losses from surface evaporation and transpiration from impoundments, losses from leakages under and around structures, losses from pollution due to backpumping, turbidity, spills, and salt water intrusion, losses from potential preemption of water required for the operation of locks, losses from potential preemption of water stored within the Four River Basins system, and losses from potential preemption of regional groundwater supplies due to the operational limitation on drawdowns to a nominal one foot in the Summit Reach, could total hundreds of millions of gallons per day. While there is no current regional demand for that amount of freshwater, such demand is easily foreseeable within the lifetime of the project, specifically for growing industrial, utility, mining, municipal, agricultural, and citrus uses. Preemption of that amount of freshwater would place an enormous cost upon the development of Central and Southwest Florida, perhaps several times the entire cost of the canal, should competing users be forced to alternative and more expensive sources of supply.

Missing Link

It has been stated that the Cross-Florida Barge Canal constitutes the missing link in a 2600 mile national inland waterway system, and, therefore, that it is a national issue.

1. Completion of the canal would not consitute completion of the so-called missing link which exists in the Intercoastal Waterway system from St. Marks to Yankeetown, Florida.

2. Because of required extensive dredging in the shallow coastal, highly productive marine environment southward from the St. Marks River, the state could never support that project.

3. Because ocean going barges cannot use inland waterways, and because inland barges, in the absence of a completed Intercoastal Waterway system, cannot cross the Gulf, use of the canal would appear to be limited to a few dual purpose barges.

4. Finally, the elimination of the transloading facility from the project would appear to preclude all but local transportation, of which none has been identified. Therefore, the project constitutes neither a missing link nor a national issue.

Legal Problems

Based primarily upon the case of the Ocala Manufacturing, Ice and Packing Company vs. the Canal Authority of the State of Florida, it has been stated that deauthorization of the canal would result in lawsuits against state and local governments, costing millions of dollars.

1. There were irregularities in that case; and it is currently under appeal. Certainly the case does not set legal precedent.

2. While there may be lawsuits regardless of the outcome of deauthorization, the bill would allow time for the Florida State legislature to provide for orderly disposition of canal lands.

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