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GREAT DISMAL SWAMP AND DISMAL SWAMP CANAL

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HEARING

BEFORE THE

SUBCOMMITTEE ON PARKS AND RECREATION

OF THE

COMMITTEE ON

INTERIOR AND INSULAR AFFAIRS

UNITED STATES SENATE

NINETY-SECOND CONGRESS

SECOND SESSION

ON

S. 2441

A BILL TO AUTHORIZE THE SECRETARY OF THE INTERIOR
TO CONDUCT A STUDY TO DETERMINE THE BEST AND MOST
FEASIBLE MEANS OF PROTECTING AND PRESERVING THE
GREAT DISMAL SWAMP AND THE DISMAL SWAMP CANAL

MAY 9, 1972



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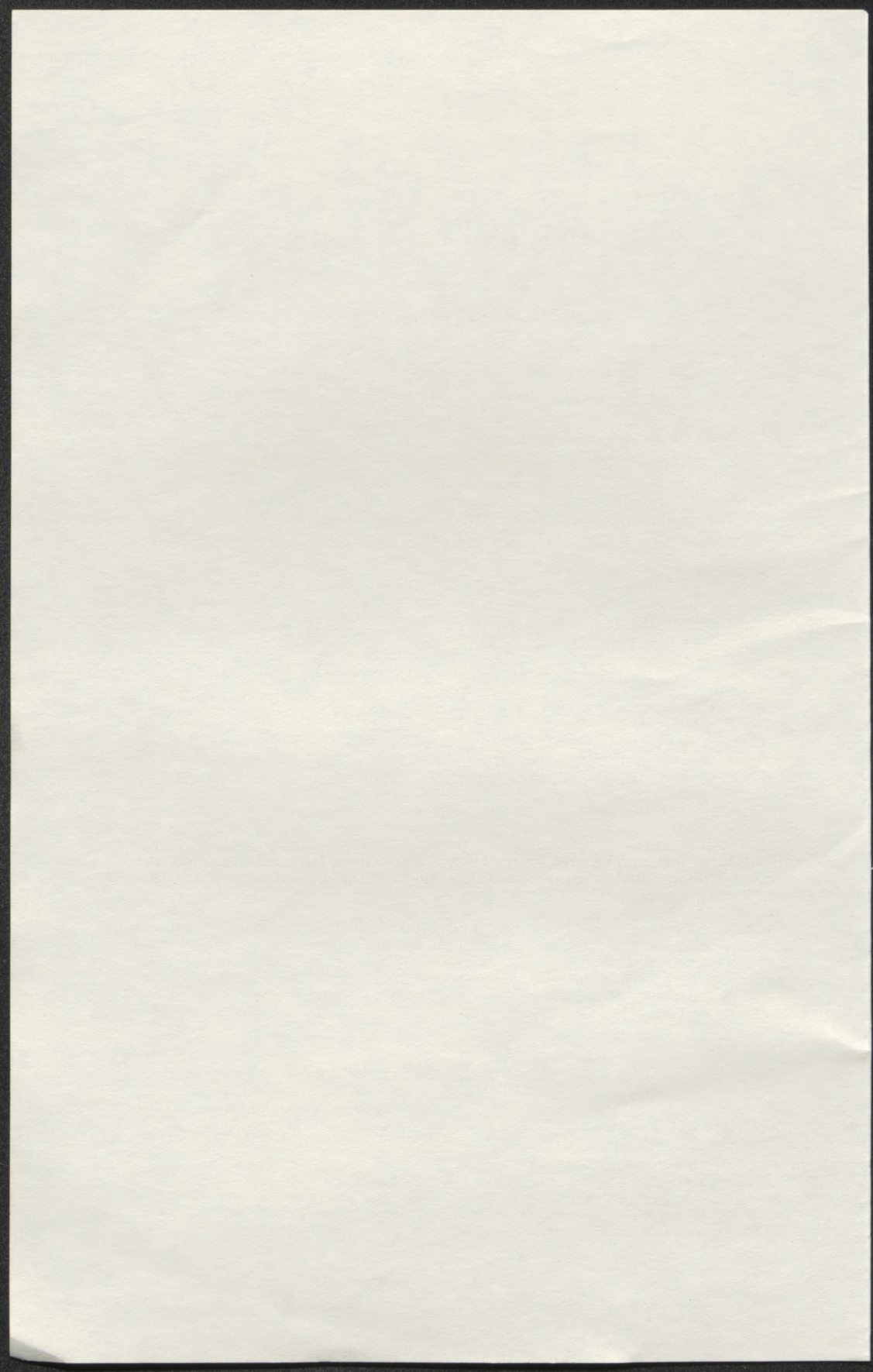
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GREAT DISMAL SWAMP AND DISMAL SWAMP CANAL

TUESDAY, MAY 9, 1972

U.S. SENATE,
SUBCOMMITTEE ON PARKS AND RECREATION
OF THE COMMITTEE ON INTERIOR AND INSULAR AFFAIRS,
Washington, D.C.

The subcommittee met, pursuant to notice, at 10 a.m. in room 3110, New Senate Office Building, Senator Alan M. Bible (chairman of the subcommittee) presiding.

Present: Senator Bible.

Staff members present: Jerry Verkler, staff director; Bernard Hartung, professional staff member; and Tom Nelson, assistant minority counsel.

Senator BIBLE. The hearing will come to order. This is the time which we have set and need for the hearing on a bill, S. 2441. The bill and reports will be made a part of the record at this point.

(The documents referred to follow:)

[S. 2441, 92d Cong. first sess.]

A BILL To authorize the Secretary of the Interior to conduct a study to determine the best and most feasible means of protecting and preserving the Great Dismal Swamp and the Dismal Swamp Canal.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That the Secretary of the Interior is authorized to conduct an investigation and study to determine the best and most feasible means of protecting and preserving the Great Dismal Swamp and the Dismal Swamp Canal, in the States of North Carolina and Virginia. Such investigation and study shall be carried out for the purposes of determining (1) the best and most feasible means of protecting and preserving the ecological, scenic, recreational, historical, and other resource values of the Great Dismal Swamp and the Dismal Swamp Canal, with particular emphasis on the development of the Dismal Swamp Canal for recreational boating purposes, and (2) the highest and best use of the resources involved.

SEC. 2. Upon the completion of the investigation and study authorized by this Act, but in no event later than one year following the date of enactment of this Act, the Secretary of the Interior shall report to the Congress the results of such investigation and study, together with his recommendations with respect thereto.

SEC. 3. There is authorized to be appropriated such sum as may be necessary to carry out the provisions of this Act.

U.S. DEPARTMENT OF THE INTERIOR,
OFFICE OF THE SECRETARY,
Washington, D.C., May 8, 1972.

HON. HENRY M. JACKSON,
*Chairman, Committee on Interior and Insular Affairs,
Washington, D.C.*

DEAR MR. CHAIRMAN: This responds to your request for comment on S. 2441, a bill "To authorize the Secretary of the Interior to conduct a study to determine the best and most feasible means of protecting and preserving the Great Dismal Swamp and the Dismal Swamp Canal."

We have no objection to enactment of S. 2441 with the amendments suggested herein.

S. 2441 would authorize the Secretary of the Interior to conduct a study of the Great Dismal Swamp and the Dismal Swamp Canal in the States of Virginia and North Carolina for the purpose of determining (1) "the best and most feasible means of protecting and preserving the ecological, scenic, recreational, historical, and other resource values" of the area and (2) "the highest and best use of the resources involved". Section 2 of the bill would require that such study be completed within one year from the date of enactment, and that results be reported to the Congress, together with the Secretary's recommendations. Section 3 would authorize the appropriation of such sums as may be necessary to carry out the provisions of this legislation.

The Great Dismal Swamp is a vast, unusual geological feature which straddles the border between Virginia and North Carolina at its easterly extreme. Approximately 40 percent of the present swamp area lies in Nansemond County and the City of Chesapeake, Virginia, and the remainder in Currituck, Camden, Gates, Perquimans and Pasquotank Counties of North Carolina. Though there is dispute as to its geologic origins, the swamp is recognized as a complex wilderness environment of water, plants, and wildlife. It has played an important role in the economic and social history of tidewater Virginia and North Carolina since the colonization of America, and has been the subject of works by Harriet Beecher Stowe, Henry Wadsworth Longfellow, and Sir Thomas Moore. Prominent features include Lake Drummond, a saucer-like depression almost two-and-a-half miles long and two miles wide, and the Dismal Swamp Canal, which extends 22 miles from Deep Creek, Virginia to Joyce Creek, North Carolina, and is administered today by the United States Army Corps of Engineers as part of the Intra-Coastal Waterway.

In his book, *The Great Dismal Swamp: Its History, Folklore, and Science*, Hubert J. Davis states that the swamp "is considered by many as one of the most unique natural wonders of the world. It is unexcelled in weird splendor, as a source of recreational pleasure, and as a wildlife refuge". In recognition of these natural values, the Advisory Board on National Parks, Historic Sites, Buildings and Monuments has recommended a portion of the Great Dismal Swamp as eligible for natural landmark designation. The Advisory Board has also recommended that this Department "explore further the best methods of protecting and preserving the Great Dismal Swamp".

As the Committee is aware, there exists general statutory authority for the conduct of such studies. Should the Congress enact S. 2441, notwithstanding our ability to proceed without further legislative authorization, the Department recommends that S. 2441 be amended as described below:

On page 1 of the bill, beginning on line 4, delete the words "best and most feasible means" and substitute in lieu thereof the words "the feasibility and desirability".

On page 1, beginning on line 7, after the word "Virginia" insert a new sentence as follows: "The Secretary shall consult with other interested Federal agencies, and the State and local bodies and officials involved, and shall coordinate the study with applicable outdoor recreation plans, highway plans, and other planning activities relating to the region."

On page 2 of the bill, on line 1, delete the words "best and most feasible means" and substitute in lieu thereof the words "desirability and feasibility".

On page 2 of the bill, beginning on line 6, after the word "poses", delete the remainder of the sentence and substitute the following in lieu thereof: "(2) the potential alternative beneficial uses of the water and related land resources involved, taking into consideration appropriate uses of the land for residential, commercial, industrial, agricultural, and transportation purposes, and for public services; and (3) the type of Federal, State, or local program, if any, that is feasible and desirable in the public interest to preserve, develop, and make accessible for public use the values set forth in (1) including alternative means of achieving these values, together with a comparison of the costs and effectiveness of these alternative means."

On page 2, Section 2, beginning on line 9, delete the words "one year" and substitute in lieu thereof the words "two years."

The purposes of these amendments are to have the bill provide a study authorization which is consistent with our view of the need for a broad and objective analysis before determining what may be either feasible or desirable

uses of land and water resources in any particular area. We believe these amendments would make the study authorization consistent with both the requirements of the National Environment Policy Act and the Administration's proposed National Land Use Policy Act. Further, we believe that the conduct of such a comprehensive study will require more than the one year allowed by S. 2441.

We anticipate that the National Park Service, the Bureau of Sport Fisheries and Wildlife, and the Bureau of Outdoor Recreation would participate in our assessment of the natural, historic and recreational values described by S. 2441. We would consult with the Department of the Army with regard to the Dismal Swamp Canal, and with other Federal agencies concerning other potential uses of the study area. Further, we would consult with the States of Virginia and North Carolina concerning any studies or plans which they may have already made concerning protection or use of the Great Dismal Swamp, as well as any projects which they may be considering which might affect it.

The Office of Management and Budget has advised that there is no objection to the presentation of this report from the standpoint of the Administration's program.

Sincerely yours,

NATHANIEL REED,
Assistant Secretary of the Interior.

Senator BIBLE. It has distinguished sponsorship in the Senate, Senator Jordan of North Carolina, Senator Byrd of Virginia, Senator Ervin of North Carolina, and Senator Spong of Virginia.

I see both Senator Byrd and Senator Spong here. Senator Spong is at the witness table, so if that is all right with you—do you want to come up, Senator Byrd?

Senator SPONG. I will be pleased to yield to seniority.

Senator BIBLE. We will hear both of you, one after the other. B usually comes before S, but we will work the alphabet backward.

Senator Spong?

STATEMENT OF HON. WILLIAM B. SPONG, JR., A U.S. SENATOR FROM THE STATE OF VIRGINIA

Senator SPONG. Thank you, Senator Bible.

Mr. Chairman, it is a privilege to appear before you this morning, in support of S. 2441, a bill to authorize the Secretary of the Interior to conduct a study to determine the best and most feasible means of protecting and preserving the Great Dismal Swamp and the Dismal Swamp Canal.

My interest in the preservation of this unique area dates back to 1968, when I suggested to then Secretary of Interior Udall that the swamp be considered for inclusion in the National Park System. I received a negative response, but pursued the matter again in 1970 with Interior Secretary Hickel.

I was advised at that time that nothing had developed to warrant a change in the negative position of the agency.

In April of last year I asked Interior Secretary Morton to initiate a study of the feasibility of the Federal acquisition of the swamp. The agency replied that personnel from the Bureau of Sport Fisheries and Wildlife had made some preliminary studies about establishing a national wildlife refuge in the swamp, but added no funds were available for that purpose.

In the conclusion of its letter, the Department expressed regret over its lack of responsiveness to the preservation of at least a portion of the area.

In view of the Department's attitude, it was a pleasure to join my colleagues from Virginia and North Carolina in the introduction of the bill that is the subject of this hearing. A study of the best means of protecting the Great Dismal Swamp obviously would constitute a first step in its protection and preservation.

Mr. Chairman, the ecological, scenic, recreational and historic values of the Great Dismal Swamp were cited by the 1972 session of the Virginia General Assembly in a joint resolution memorializing Congress to enact S. 2441. I ask that a copy of the joint resolution by them be included in the record of the hearing at the conclusion of my remarks.

Senator BIBLE. Without objection that will be so ordered.
(The document referred to follows:)

COMMONWEALTH OF VIRGINIA



GENERAL ASSEMBLY

HOUSE JOINT RESOLUTION NO. 110

Memorializing the Congress of the United States to act favorably on Senate Bill 2447, which authorizes the Secretary of the Interior to conduct a study to determine the best and most feasible means of protecting and preserving the Great Dismal Swamp and the Dismal Swamp Canal.

WHEREAS, the Great Dismal Swamp and Dismal Swamp Canal are located within Virginia and North Carolina; and

WHEREAS, the Great Dismal Swamp has great ecological, scenic, recreational and historic values for the Commonwealth; and

WHEREAS, the Dismal Swamp Canal can be developed for recreational boating purposes; and

WHEREAS, Senate Bill 2447 authorizes a study by the Secretary of the Interior to determine the best and most feasible means of protecting, preserving and developing the Great Dismal Swamp and the Dismal Swamp Canal as valuable natural resources of the Commonwealth; now, therefore, be it

RESOLVED by the House of Delegates, the Senate concurring, That the Congress of the United States is hereby memorialized to act favorably on Senate Bill 2447 of the first Session of the Ninety-second Congress without delay.

RESOLVED FURTHER, That the Clerk of the House of Delegates is instructed to send copies of this resolution to the members of the Congress of the United States.

*Agreed to by the House of Delegates,
March 2, 1972.*

*Agreed to by the Senate,
March 10, 1972.*

George R. Rich
Clerk.

Louis O. Lucas
Clerk.

Senator SPONG. The bill also has been endorsed by the Wilderness Society, the Conservation Council of Virginia, the Izaak Walton League, the Potomac Chapter of the Sierra Club, the Citizens Committee for Virginia State Parks, the League of Women Voters of Norfolk-Virginia Beach, members of the faculty of the Biology Department of Old Dominion University, and by many other conservation-oriented organizations and individuals.

Some of the Nation's most prominent founding fathers—George Washington, Patrick Henry, and William Byrd—have played significant roles in the history of the Dismal Swamp. It was given its name by William Byrd. George Washington described it as a paradise when surveying the area in 1763.

Such writers as Henry Wadsworth Longfellow, Harriet Beecher Stowe, and Thomas Moore have described the unique qualities of the swamp.

Encroachment by man and his machines have reduced the size of the swamp, but it still abounds with many species of wildlife and plantlife. It is worthy of preservation and protection. The swamp still has many cypress, black gum, juniper and water ash. It is my understanding that 80 species of birds may be found there.

One of the most interesting features of the Dismal Swamp is Lake Drummond, and it now averages 5 or 6 feet in depth, but once was 15 feet deep. Its water has been described as having the color of tea or wine. The high acidity of the water prevents bacterial growth and it was prized by 18th and 19th Century sailing ships because it would not stagnate on long voyages.

Mr. Chairman, I hope your subcommittee and the full committee will look with favor upon this bill. A study of the Interior Department would be most helpful in my judgment toward achieving the objective of preserving here the wetland values of the Great Dismal Swamp.

Mr. Chairman, Senator Jordan, the original sponsor of this legislation, is unable to be with us today, and he has asked me to offer his statement for the record, which I would like to do.

Senator BIBLE. We are very happy to have his statement for the record. I understand he has a few problems in the South in the last few days. I hope they work out.

Senator SPONG. Mr. Chairman, some witnesses who had hoped to be here and testify today were unable to be here, from the city of Chesapeake, in which a great deal of the swamp is located, and I would ask that the record remain open for a period.

Senator BIBLE. We will keep the record open for 10 days (May 19) for the receipt of any other type of communication which may be received. We are delighted to have your testimony this morning, Senator Spong, and we will hear the witnesses and proceed to act on this bill at a very early date.

Senator SPONG. Thank you very much, and I think my colleague, Senator Byrd, for yielding.

(The statement referred to follows:)

STATEMENT OF HON. B. EVERETT JORDAN, A U.S. SENATOR FROM THE STATE OF NORTH CAROLINA

Mr. Chairman, I am grateful for the opportunity you have provided to speak up for S. 2441, which is the first step in protecting one of our most unusual natural resources—the Great Dismal Swamp in North Carolina and Virginia.

I also want to thank my colleagues and co-sponsors of this bill, Senator Ervin of North Carolina and Senators Spong and Byrd of Virginia for their interest and support. Credit should also go to Governor Robert W. Scott and to Dr. Joseph A. Gill of North Carolina who called on me directly for Congressional action.

Mr. Chairman, the need for this legislation is clear. The Great Dismal Swamp once covered more than 2,000 square miles. George Washington was a member of the party which surveyed the swamp in 1763. Earlier, in 1728, the swamp was given its name by Colonel William Byrd, a member of the expedition charting the boundary between Virginia and North Carolina.

George Washington later became one of the stockholders in a company which hoped to reclaim the swampland. Between 1790 and 1822 the Dismal Swamp Canal was constructed, intended to connect Hampton Roads in Virginia with the rivers and sounds of North Carolina. The canal today is an important link in the Atlantic Intracoastal Waterway.

Through the centuries the size and vitality of this great wilderness of a swamp have been eroded until today the swamp is less than one-third its original size. Many forms of plant and wildlife are still to be found although man's needs and his uses have steadily reduced the potential for their continued existence.

That is why this hearing is being held: to put into motion a plan to preserve and protect these resources given us by nature and to determine the best way to achieve that.

S. 2441 would authorize the Department of Interior to undertake a study of the swamp and canal, to take an inventory of its resources and to bring to Congress, within a year of enactment of S. 2441, a suggested plan of action.

Mr. Chairman, I urge favorable and prompt consideration of S. 2441.

Senator BIBLE. Senator Byrd, we are happy to have you here this morning.

STATEMENT OF HON. HARRY F. BYRD, JR., A U.S. SENATOR FROM THE STATE OF VIRGINIA

Senator BYRD. I appreciate the opportunity to appear in support of S. 2441, legislation calling for a study of means to preserve the Great Dismal Swamp. There are many expert witnesses who have dedicated countless hours to the preservation of the swamp. I will be brief in my remarks in order that these gentlemen may have ample opportunity to give the committee the benefit of their expertise.

Mr. Chairman, the Great Dismal Swamp is one of America's most unusual assets, and also one of the least understood. The mere fact that the swamp itself is higher in altitude than the land around it makes it distinct. If at all possible, we should not let this remnant of our national heritage be destroyed. The Dismal Swamp presents a classic example of the interaction of forces and their effects on the total environment of an area.

In the center of the swamp is Lake Drummond, a large fresh water lake which feeds water to the entire region since it lies on high ground. The lake is subject to loss of water due in part to the operation of the locks on the Intracoastal Waterway. Each time the locks are opened, vast amounts of water are drawn from the lake.

When this reduction of the water level in Lake Drummond is accompanied by a dry season, the danger of fire in the swamp is sharply increased.

Recent years have witnessed devastating fires in the peat which forms the core of the swamp itself. These events have caused enough of a threat to the Great Dismal Swamp, but the push of civilization is causing even more concern. Throughout the history of this country, many ambitious plans have been launched for the development of the swamp. George Washington planned to drain great segments of it and develop the area.

During this century, ideas for subdivisions, racetracks, and airports have been discussed. Each of these projects would have resulted in destruction of the swamp itself.

Recently there has been an awakening to the value of the preservation of natural areas for themselves. This value was not appreciated in earlier times. In fact, my ancestor, William Byrd II, had few kind words for Dismal Swamp when he explored it in the early 18th century.

Senator BIBLE. Maybe that is why he named it Dismal.

Senator BYRD. That may be. I must say I do not share his view.

Senator BIBLE. I understand.

Senator BYRD. I have changed after 250 years, and I assume he would change, too.

Today, we have come to realize there are but a few unspoiled areas remaining in our country. I hope this legislation will lead to a reasonable approach to conservation of the swamp's values.

We must have a detailed study of the area in order to be able to reach a course of action for preserving all or a portion of this region.

I cannot but add that time is growing short for this project. The pressures of civilization are closing in on Dismal Swamp. I ask, Mr. Chairman, that the committee give its full encouragement to the project.

Senator BIBLE. Well, this is a feasibility study, Senator Byrd, as you know, and I don't know how we can have a field hearing, or what we might properly do with the area until we have such a feasibility study. I think that should move forward without difficulty.

It is not my intention to go into the merits of this area today, because we try to handle these areas as recreational areas and so forth, rather, and the best way to do that is study it. I see the Department recommends the enactment of this legislation.

I should think we could report this very quickly, have a study, hope it is completed soon, and from there see where we go. I appreciate your appearance here today, and I know you have something more difficult, H.R. 1, and maybe they have the wrong name on this particular bill.

Senator BYRD. That is where I am headed for at the moment, I am sorry to say.

Senator BIBLE. Nice to see you, Senator Byrd. We appreciate your appearance here today and your words of encouragement and support.

Our next witness is the Deputy Director of the National Park Service, Mr. Thomas F. Flynn. Mr. Flynn?

STATEMENT OF THOMAS F. FLYNN, JR., DEPUTY DIRECTOR, NATIONAL PARK SERVICE, DEPARTMENT OF INTERIOR; ACCOMPANIED BY JOSEPH P. LINDUSKA, ASSOCIATE DIRECTOR, BUREAU OF SPORTS FISHERIES AND WILDLIFE, USDI; MIKE GRISWOLD, CHIEF, DIRECTOR OF LEGISLATIVE COORDINATION AND SUPPORT, NATIONAL PARK SERVICE; AND C. KENNY DALE, NATURALIST, NATIONAL PARK SERVICE

Mr. FLYNN. Mr. Chairman, with your permission, I would like to have Mr. Joseph Linduska, Associate Director for the Bureau of Sports Fisheries and Wildlife, with me, and Mr. Mike Griswold.

Senator BIBLE. We are happy to have them.

Mr. FLYNN. Mr. Chairman, it is a privilege to appear before you today to present the Department's views on S. 2441. We have no objection to its enactment with the amendments suggested in our report.

The purpose of the proposed study is to determine "the best and most feasible means of protecting and preserving the ecological, scenic, recreational, historical, and other resource values" of the Great Dismal Swamp, and the Dismal Swamp Canal in Virginia and North Carolina, and to consider the "highest and best use of the resources involved."

The Secretary of the Interior would be required to report the results of the investigation to the Congress within 1 year of enactment of the bill.

The Great Dismal Swamp is a vast, unusual geological feature which straddles the border between Virginia and North Carolina at its easterly extreme. The swamp is a complex wilderness environment of water, plants, and wildlife, and is considered one of the richest zoological areas on the Atlantic seaboard. It contains a rich variety of flora and fauna, including deer, black bear, small mammals, birds, and reptiles. Lake Drummond, a saucerlike depression almost $2\frac{1}{2}$ miles wide and 2 miles long with cypress trees on its banks, is the swamp's outstanding natural feature.

The swamp has also played an important role in the economic and social history of tidewater Virginia and North Carolina since the colonization of America. George Washington, who had extensive landholdings in the area, recommended the construction of a canal through the Dismal Swamp in 1785.

He had surveyed the swamp as early as 1755. The canal Washington suggested, now known as the Dismal Swamp Canal, was the first link in the Intracoastal Waterway which now stretches 2,300 miles from Boston to Brownsville, Tex. The Dismal Swamp Canal is administered along its 22-mile length by the Army Corps of Engineers as part of the waterway.

Mr. Chairman, the Secretary's Advisory Board on National Parks, Historic Sites, Buildings, and Monuments has recently recommended a portion of the Great Dismal Swamp for natural landmark status. The Advisory Board has also recommended that this Department "explore further the best methods of protecting and preserving the Great Dismal Swamp."

Logging for pulpwood in the swamp has been extensive in the past and is a possibility in the future. And as the metropolitan areas near the swamp expand, demands for other uses of its lands increase.

Pressures to expand existing agricultural, residential, and recreational uses are growing. At the same time, there are those who believe that, because of its unique features, the swamp ought to be preserved untouched. This study bill, as we suggest it be amended, offers a needed beginning in the resolution of these conflicts.

We also suggest amendments which would reflect the fact that a truly comprehensive study would require 2 years rather than the 1 year the bill provides, and would entail coordination with other interested Federal agencies, as well as State and local interests.

We anticipate that the National Park Service, the Bureau of Sport Fisheries and Wildlife, and the Bureau of Outdoor Recreation would all contribute to the Department's effort.

Mr. Chairman, I shall be happy to answer any questions you may have at this time. Thank you.

If you would like Mr. Griswold to show you on the chart the areas, we would be glad to do so.

Senator BIBLE. I would be happy to be geographically oriented.

Mr. GRISWOLD. I have passed through the area, sir.

Senator BIBLE. Do we have anybody who has been there?

Mr. FLYNN. Yes, we have Mr. Kenny Dale, our naturalist.

Senator BIBLE. That is the man I want to hear. I am not trying to examine the merits of this proposed project. I don't see how we can do that until we have a study.

I am a little confused as to whether this should be a wildlife habitat or a recreational area. Apparently the thrust of what we have here this morning means it should be preserved, but I am not sure what we are preserving it for, what we are going to do with it?

That is the purpose of the study. I don't think you know the highest and best use of the area until after we have completed the study. So I don't think we have to spend a lot of time this morning on the great beauty of this area. I think we want to study it. As far as I am concerned, I am ready to report out a bill to study the area and appropriate the necessary money requested for said study. You bureaucrats would never get it done, particularly if you ask for 2 years. I would rather hold you to 1 year and let you work a little harder.

Please show us the boundaries, Mr. Griswold.

Mr. GRISWOLD. Mr. Chairman, here is the State line between Virginia and North Carolina. Here is the Norfolk-Hampton Roads area. Here is Elizabeth City, N.C. The area in blue on this map indicates in general the outline of the area we would consider studying under this bill. It includes the Great Dismal Swamp, the Great Dismal Canal, Lake Drummond to which you have heard reference.

Senator BIBLE. How big is Lake Drummond?

Mr. GRISWOLD. About 2½ north and south, and about 2 miles east and west. This area, as I say, includes about 350,000 acres within the yellow portion on the map.

Senator BIBLE. 350,000 acres?

Mr. GRISWOLD. Yes, sir.

Senator BIBLE. Who owns it?

Mr. GRISWOLD. There are multiple ownerships. There is one 43,000-acre tract here which is owned by a corporation. The U.S. Corps of Engineers, of course, administers the canal, which is one of the two links of the Intercoastal Waterway going through this area.

There are multiple ownerships, considerable private ownership, very little ownership.

Senator BIBLE. What type of development is there in this area at the present time?

Mr. GRISWOLD. There are agricultural uses between here, between the Portsmouth Ditch and the Dismal Canal. There has been considerable agricultural development. Around Drummond Lake there are lodges or cabins. There are some very few agricultural uses in the portion around Drummond Lake, but the whole area has been cut over. As you get down into the North Carolina area, there are more highways through the area, because there are few strands of high ground that go through the study area.

Senator BIBLE. How many homes are there within the area?

Mr. GRISWOLD. We have no idea of this, Mr. Chairman. We have not studied this area in depth to be able to gain the information.

Senator BIBLE. If I were to go there today, how many people would I find in the area: 1,000, 2,000, 5,000, 10,000?

Mr. GRISWOLD. I would imagine that several thousand would be a rather heavy population.

Senator BIBLE. Mr. Dale, how many people would I find if I walked through the yellow area?

Mr. DALE. On that area would be on the order of a few thousand. The homes in there are scattered. There are a few pockets of residential development, but within the yellow area itself, I would say on the order of possibly 10,000.

Senator BIBLE. That looks like a big area to me, just comparing it with Portsmouth and Norfolk and the other areas in red. It looks like a tremendously large acreage.

Did you want to add anything about it?

Mr. DALE. Yes, sir. Right in this area there is a little concentration, there are a number of roads that go right through here, a concentration of population. The area up above here, there is very little. Over in this area to the east of the canal, there are a few small developments, but to this part, there is none whatsoever. In the North Carolina section down in here, there is very little population, practically none.

Senator BIBLE. I don't know that I got you properly identified here.

Mr. DALE. C. Kenny Dale, and I am a naturalist for the National Park Service.

Senator BIBLE. You are headquartered where?

Mr. DALE. In Portsmouth area at the present time.

Senator BIBLE. I see. Well, there is no need of your developing this, and I suppose it is largely a wildlife area. Is it a nesting place for ducks or geese, or what? Describe it a little, you are the naturalist.

Mr. DALE. Not too much waterfowl, sir. Waterfowl is rather limited. It is an excellent birding area. I think there are something over 80 species identified there as resident birds in the area.

There are some waterfowl, but it is not a waterfowl area primarily. The lake itself, waterfowl come in and rest for short periods, but it would not be considered a heavy waterfowl area.

Senator BIBLE. You are a naturalist. What are the main things to recommend it from the standpoint of analysis?

Mr. DALE. I think, sir, the primary significance of this area is ecological in the sense of an area that physiographically is intact.

Its vegetation is not virgin, it has been cut over, but the area has a very fast recovery potential for vegetation. It cannot be considered a pristine area, but it has tremendous value as a laboratory. Several of the universities in that area now are conducting studies within the present landmark boundary.

Senator BIBLE. Point on the map, Mr. Griswold, and show me the dividing line between Virginia and North Carolina.

Mr. GRISWOLD. That line is right here, Mr. Chairman, and a rough approximation would say that 60 percent of this yellow area is in North Carolina and about 40 percent in Virginia.

Senator BIBLE. I can see that. Did I understand the Commonwealth of Virginia has passed some type of legislation concerning the preservation of this area? Am I correctly advised on that?

Mr. GRISWOLD. That is our information, Mr. Chairman. We are not aware of any funds having been appropriated to implement that authority, however.

Senator BIBLE. I don't know. It seems to me there was on one of the exhibits, maybe Senator Spong's exhibit, a resolution. Yes, this is the exhibit to which I have reference, attached to Senator Spong's statement, and it is a joint resolution from the Commonwealth of Virginia, asking Congress to conduct a study on the best means of preserving the swamp and the canal.

That has been already made part of the record. That is simply memorializing Congress to study, and the bill does the same thing. Do you know whether or not the Commonwealth of Virginia has affirmatively done anything as a Commonwealth or as a State to preserve this area?

Mr. FLYNN. No, sir, not in acquisition or anything.

Senator BIBLE. Maybe some of the witnesses can speak to that point, some of the witnesses who are from North Carolina, too, can speak on the same point. My curiosity is directed to the point of what the States involved have done about the preservation of this area up to today.

We will ask the other witnesses on that. I have no further questions. It is not my purpose to go into depth about the Great Dismal Swamp at this time, because I think it is a little premature.

I think we ought to see what the study says on how to handle this by way of preservation. I have no further questions of you.

Our next witness is John W. Grandy IV, administrative assistant, Wildlife, National Parks and Conservation Association.

STATEMENT OF JOHN W. GRANDY IV, ADMINISTRATIVE ASSISTANT, WILDLIFE, NATIONAL PARKS AND CONSERVATION ASSOCIATION

Mr. GRANDY. Mr. Chairman, I have a prepared statement which I would like to read.

Senator BIBLE. Proceed.

Mr. GRANDY. My name is John W. Grandy IV, 1701 18th Street NW., Washington, D.C., 20009. I am administrative assistant for Wildlife at the National Parks and Conservation Association. I appreciate the invitation of the committee to testify in these hearings.

The National Parks and Conservation Association is the leading national conservation organization concerned primarily with the protection of the National Park System, but also with other major environmental and conservation subjects such as wildlife and forestry.

The NPCA is an independent, private, and nonprofit membership institution, educational and scientific in character, with over 50,000 members throughout the United States and abroad, all of whom receive the monthly National Parks and Conservation Magazine: The Environmental Journal.

Mr. Chairman, the National Parks and Conservation Association wholeheartedly supports S. 2441, the proposal to direct the Secretary of the Interior to conduct a study of the swamp. His study would hopefully recommend and document the best future uses of the area and the best means of preserving that unique ecosystem.

We have two specific suggestions to help insure survival of the swamp:

1. Since the Secretary would be allowed to study the area with a view toward the best method of preserving it, the Secretary should at this time be empowered to stop threatened and pending drainage, development and destruction of the swamp.

2. I believe that the present bill places too much emphasis on recreational boating within the Dismal Swamp Canal. The Canal-Swamp ecosystem is fragile and excessive boating might cause destruction.

This is just a possibility, but it points out that the Secretary should make his study without aiming at recreational boating. If the results of the study indicate that heavy boating is compatible and desirable, fine.

But if the study indicates the opposite, then also fine. The Secretary's study should examine all alternative uses, but the primary thrust should be toward preservation of the Dismal Swamp ecosystem.

The need for this legislation is urgent. The area is being drained, either intentionally or unintentionally causing the swamp to die. Farms are encroaching on the area. The Army Corps of Engineers though the responsible agency, had not taken steps to halt drainage or to minimize its own use of the water resources in the swamp.

Both the biological and historical features of the area should be preserved. The faunal and floral resources of the area are magnificent: A relatively isolated and endangered population of black bear exists within the swamp. White-tailed deer and other organisms abound in this outdoor laboratory. The Dismal Swamp Canal is ensconced in history. The first canal ever dug into the Dismal Swamp was dug by George Washington.

In conclusion, the National Parks and Conservation Association hopes you and the other committee members will proceed rapidly with this legislation in hopes of finding the best method for preserving the Great Dismal Swamp. I thank you for this opportunity to testify before your subcommittee, and I will be happy to answer any questions you may have.

Senator BIBLE. I have no questions, Mr. Grandy. I think you pointed out the problems we have here. I don't know whether recreation and recreational boating is indicated for this area or not. Of course, that will be the very purpose of the study. It may be a fragile area and an area that will not stand too much population within it, and so that is something the study will have to show. I just don't know, and that is why we will have the study.

Thank you, Mr. Grandy.

Mr. GRANDY. Thank you.

Senator BIBLE. Our next witness is Mr. W. E. Ashley, Jr., chairman, Dismal Swamp Committee, Virginia Division of the Izaak Walton League of America, Suffolk, Va.

STATEMENT OF W. E. ASHLEY, JR., CHAIRMAN, DISMAL SWAMP COMMITTEE, VIRGINIA DIVISION OF THE IZAAK WALTON LEAGUE OF AMERICA, SUFFOLK, VA.

Mr. ASHLEY. Thank you, Mr. Chairman. We appreciate the opportunity to appear before your committee. To answer a question on what the State of Virginia has done, I had the privilege of speaking to the

Virginia Outdoor Association 3 weeks ago and on the same program was the chairman of the Virginia State Parks System.

In 1964, the State of Virginia did recommend that a study be made of the Great Dismal Swamp, and this study was made, and this booklet that I will present was written on October 1, and this study recommended that 50,000 acres be purchased by the State of Virginia, and including Lake Drummond, and a recreational area, a national wild-life habitat dealing with the history and uniqueness of the swamp be established, and in view of this, \$50,000 was appropriated to make a study.

Out of this study \$18,000 was used, and a tract of land along the Portsmouth ditch was surveyed and a cost was put on to this of around \$125 per acre, but Virginia Park Division, seeing that the remaining money left of the \$50,000 was not enough to even put a dent in it, decided to drop it, and this is where the State of Virginia stands at this particular time.

Senator BIBLE. I understand the State of Virginia can't handle it, and the State of North Carolina can't handle it, and they want Uncle Sam to do it.

You don't need to read your whole statement. I know you have been a valuable ally in this. I am going to recommend the study, and I am going to recommend \$75,000 or whatever is necessary, be appropriated to make this study. So you might shorten up your rather detailed statement, which will be incorporated in full in the record.

Mr. ASHLEY. Among those there at the hearing was Alexander Brown, author of the book on the Dismal Swamp. During his statement he noted that the Corps of Engineers were not very good stewards of the use of the water in the inland waterway canal because the locks, one at Deep Creek and one at South Mill, both of these locks are large enough to hold one and a half million gallons of water, and each time a boat is floated through, one and a half million gallons of fresh water is lost.

The canal is 22 miles long running from Deep Creek to South Mill. When the original canal was dug, mostly by paid slave labor, it was found that the seepage of water into the canal from the swamp was not adequate to keep the Canal open to boat traffic. The deeper ditch was dug in 1811, which is about three and a quarter miles long and connects the inland canal with Lake Drummond.

Lake Drummond is used to store water so in times of dry weather it can be used to keep the canal in operation. Lake Drummond consists of 3,148 acres when full, and is 18.65 feet above sea level. When full, the lake is about five and a half feet deep.

Now during the meeting we had, there was a fire——

Senator BIBLE. You are just reciting what you did at the meeting. I am not interested in what you did at the meeting. I told you I would recommend a study of it, so as long as I am on your side, let me remain on your side.

This is very valuable, and it has all been made part of the record. These are the preliminary things you have done. I have indicated to you that I am going to recommend to the subcommittee that they go ahead and make the study. That is what you are asking me.

Mr. ASHLEY. Well, good. I will conclude my remarks, and I appreciate the fact that you allowed us to be on this program. At the

conclusion of this, those who would like to see some slides, we have some slides showing pictures of exactly what is taking place in the swamp in 1972.

Senator BIBLE. I always like to see pictures providing it is not too long a motion picture show.

Mr. ASHLEY. We can hold this down to about 15 minutes.

Senator BIBLE. All right. We will wait until after we have had all the witnesses, and then we will see pictures.

(The complete statement of Mr. Ashley follows:)

STATEMENT OF W. E. ASHLEY, JR., CLU, CHAIRMAN, DISMAL SWAMP COMMITTEE,
VIRGINIA DIVISION, IZAAK WALTON LEAGUE OF AMERICA

Although much had been done in the past—the current drive to save the Great Dismal Swamp began on January 26, 1970, when 83 concerned individuals representing some 25 different conservation groups from Virginia, Washington, and Maryland assembled in Suffolk, Virginia, to review what had been done in the past and to seek new ways not only to preserve, but also to restore this region as much as possible to its natural state. This meeting was brought about at the 1969 State Convention of the Virginia Chapter of the Izaak Walton League of America when Reynolds Harnsburger, past National President of the League handed me a letter from Alva Duke of the Virginia Wilderness Society and asked me to look into the matter and report back at the next State meeting.

After corresponding with Mr. Duke, a meeting was held in Suffolk, Virginia, sponsored by the Suffolk-Nansemond Chapter of the Izaak Walton League. Dinner was served at this meeting that lasted some six hours.

Those on the program included Dr. Reginald E. Holland, President of the Suffolk-Nansemond Historical Society (deceased). Dr. Holland pointed out that unless and until the water table in the region was restored in somewhat its original status, all talk of preservation of the Great Dismal Swamp was a waste of time.

A scientist affiliated with the Smithsonian Institute reminded the group that the Dismal is "one of a kind" in its unique natural qualities.

Alexander Brown, author of the History of the Dismal Swamp Canal, stated that some 1½ million gallons of water was used each time the canal locks were opened to allow boats into the inland waterway canal.

The Canal is 22 miles long, running from Deep Creek to South Mills. When the original Canal was dug—mostly by slave labor—it was soon found that the seepage of water into the canal from the swamp was not adequate to keep the canal open to boat traffic. The feeder ditch was dug in 1811 which is about 3¼ miles long and connects the Inland Canal with Lake Drummond. Lake Drummond is used to store water so in times of dry weather, it can be used to keep the canal in operation. Lake Drummond consists of 3,148 acres and when full is 18.65 feet above sea level. When full the lake is about 5½ feet deep.

During the meeting, the threat of fire in the 678 million tons of peat in the Swamp echoed over and over. A peat fire is unlike any other kind. It can burn for years and is almost impossible to put out.

Alvah Duke, representing the Wilderness Society, presented a resume of the laws passed by the Virginia Legislature that vested the sole water rights of the Swamp in the hands of the canal proprietors. He pointed out that as of that date no official at any government level had been found who would demand enforcement of the laws pertaining to certain drainage violations present in the Dismal Swamp. The use of the water flowing into the canal and also the feeder ditch from the West belongs to the owners of the canal and no ditch can be dug less than one mile apart. These ditches must have water control gates so that in time of drought, they can be closed to allow water to remain in the swamp.

A representative of the Virginia Institute of Marine Science referred to the water table dropping and the population increase in the Suffolk, Chesapeake, and Norfolk areas; he stated that the Dismal Swamp had a direct bearing on the annual rainfall in this region.

As a result of extensive inquiry into whatever plans or proposals the Virginia Department of Conservation and the Wildlife Department of the U.S. Department of the Interior might have for the future of the region, it was found that

little, if any, serious concern could be found at any of these critical points of control.

At the conclusion of this meeting it was determined that if anything was to be done, it would have to come through political channels that determine and control the necessary steps that can assure the Dismal Swamp a future. A resolution calling upon the individuals present to seek whatever aid from both State and Federal possible was recommended and adopted.

From that day forward, the Izaak Walton and Wilderness people have worked long and hard at the task of saving this great area from destruction.

During the 1970 General Assembly, a drive was mounted to have an act introduced that would repeal certain previous legislation that made it all but impossible for the State of Virginia to use its right of Eminent Domain in certain parts of the Dismal Swamp should it desire to do so. Statewide newspaper and radio articles and broadcasts triggered sufficient public demand and Chapter 709 in Virginia Legislature became law. The right of eminent domain was restored to all of Virginia.

The collective efforts of concerned individuals have had to fight off some wild proposals—including a jet airport in the swamp and a modern race track.

In 1970 Governor Linwood Holton appointed Gerald P. McCarthy as Director of the Environmental Council of Virginia. After learning the plight of the Swamp, he made a personal visit to the area. It was very cold December 28th, and an ice breaker had to go before the small boats to break ice up the feeder ditch. This trip was hosted by Colonel James Tormey of the U.S. Corps of Engineers. The plight of the Dismal Swamp was stressed many times during this and subsequent meetings. The total outcome of these efforts seems to be reflected in a recent report of this Council stating that the ground water resources in Southeastern Virginia are being dangerously depleted. However, this fact had been established as far back as 1966 by extensive surveys completed by the North Carolina Department of Air and Water Resources.

On January 8, 1971, members of the Izaak Walton and Wilderness committees traveled to Fort Norfolk, Virginia, for a conference with Colonel Tormey and other members of his staff. At this meeting, the laws were passed by the States of Virginia and North Carolina vesting the rights of the use of water in Lake Drummond and the flow of it from the west to the owners of the canal was stressed.

Several hours of discussion followed, ending with a statement from Colonel Tormey that a survey of the drainage ditches flowing into the feeder ditch and the Dismal Swamp Canal would be undertaken. Reports are now in, showing all of these drainage ditches, their exact location, depths, etc.; but we still await word of any positive action.

On March 30, 1971, the conservation committees traveled to Washington to present their case for the Dismal Swamp before a joint meeting of members of both houses of Congress. Congressman Watkins M. Abbitt was kind enough to set up this meeting. Those present included Watkins Abbitt, David E. Satterfield, G. William Whitehurst, Thomas N. Downing, all from Virginia, and Walter B. Jones from North Carolina. Representatives from the Senate offices of Harry Byrd and William B. Spong were present.

The details of the problems besetting the Great Dismal Swamp were discussed. The economical benefits flowing into the region as well as its peculiar and unique features and its historical heritage were counted.

Following this meeting the Congressmen present sent individual and collective letters to various departments of the U.S. Interior Departments seeking assistance in the preservation of the Dismal Swamp. A lot of classy excuses that meant exactly nothing was all that came back.

Finally in the fall of 1971, Senators Jordan and Ervin of North Carolina along with Senators Byrd and Spong of Virginia introduced S. 2441 in the Senate, and Congressman Watkins Abbitt filed H.R. Bill 10511 in the House. Both of these bills carry the exact same language. Both ask the Secretary of the Interior to conduct a study to determine the best and most feasible means of protecting and preserving the Great Dismal Swamp and the Dismal Swamp Canal.

On March 17, 1972, we traveled to Washington to speak at the Smithsonian Institute about the plight of the Great Dismal Swamp. This lecture was sponsored by the National Parks and Conservation Association. The interest of the

people wishing to see the Swamp preserved was shown by the numbers that had to be turned away due to lack of room. Around 568 persons heard the lecture and saw proof of the plight of the Swamp.

The Dismal Swamp Canal is the third oldest artificial waterway cut in this nation and is the oldest still in use. This along with the unique qualities of the Great Dismal Swamp share a common threat—the loss of its water resources as a direct result of uncontrolled drainage of the region.

The future of the Great Dismal Swamp, all of its natural and manmade benefits, and uncounted species of wildlife—not to mention the welfare and health of many citizens living along the outer boundaries of the Swamp will suffer if the Dismal goes down the drain.

This can and will be saved if you take positive action and recommend that Senate bill 2441 be adopted and necessary appropriations are provided.

Senator BIBLE. Our next witness is Mr. Alvah Duke, of the Virginia Wilderness Society of Suffolk, Va.

STATEMENT OF ALVAH DUKE, ON BEHALF OF THE VIRGINIA WILDERNESS SOCIETY OF SUFFOLK, VA.

Mr. DUKE. I wish to thank you first for the opportunity of being here, and I have a written statement which I think covers most of what I will say.

Senator BIBLE. Without objection your full statement will be incorporated into the record.

Mr. DUKE. The Wilderness Society is extremely concerned about the preservation of this area from the standpoint of the wilderness or potential wilderness area. Between the Appalachian Mountains and the ocean there are 400 miles, and this is the last remaining possible region which could be reserved and allowed to return to what will resemble a wilderness area.

If this goes, there are no more to be had. If the mammals are destroyed, you will have to go to the mountains to find them. There are the black bear and the deer, and 28 variations of mammals in the regions.

There have been over 100 species of bird, 38 different species of fish, over 3,000 species of vegetation such as trees, vines, and things of that manner.

Senator BIBLE. Some of those are not mammals.

You referred to them as mammals but it is all part of the ecosystem there, and the thrust of what you are saying is that it should be preserved. In what form it will be preserved, of course, depends on what the study committee comes back and recommends.

Mr. DUKE. This is true. This is the last region that has such a potential to shelter and to maintain such a wide species of wildlife.

Senator BIBLE. I appreciate your statement, and it will be incorporated in full in the record. Repeating what I said earlier, I am going to recommend that the study be made.

Mr. DUKE. That is fine. Thank you.

(The prepared statement of Mr. Duke follows:)

STATEMENT OF ALVAH DUKE, ON BEHALF OF THE VIRGINIA WILDERNESS SOCIETY OF SUFFOLK, VA.

Mr. Chairman, members of the committee and ladies and gentlemen, my name is Alvah Duke, chairman of the Dismal Swamp Preservation Committee of the Wilderness Society. My purpose is to urge immediate and positive action of

S. 2441, a bill that concerns itself with the preservation of the region historically known as the Great Dismal Swamp of Virginia and North Carolina.

For more than three centuries men have hacked away at the rich timber and soil resources of the Great Dismal. Most of its tall timbers are gone, much of its wildlife has been destroyed, and now for the sake of commercial and urban exploitation, the scant 750 square miles remaining of its original 2,200 square miles, stands on the brink of annihilation. This is not fantasy, this is fact. Consider these authorities:

October 1, 1965, the Virginia Department of Conservation issued an official document containing the following statement: "Destruction of soil and water resources in Dismal Swamp occur on a frightening scale. It is a matter of one man's life span, or less, before the Great Dismal will be lost not only to Virginia, but to all mankind."

The only fault I find with this statement is the use of the word "swamp." The Great Dismal, in fact and in function, is *not* a swamp. Therein lies the basic lesson that must be appreciated, if the heartland of this morass of contradictions is to be preserved for the edification of generations at yet unborn.

Normally, areas men call swamp are depressions upon the earth's surface, areas where water is trapped, becoming stagnant, polluted and poisonous. The hydrolic function of water movement in the great dismal is a direct opposite. Here fresh water from springs and artesian wells swell to the surface, filling Lake Drummond mainly through its bottom and sides. The 3,400 acre surface of the lake stands some 20 feet above mean sea level, being the highest surface water elevation in the entire region.

Five rivers and many streams flow out and away from the region, none into it. The lake is the reservoir for the dismal swamp canal, and the well that nourishes every living thing in the sprawling morass of the great swamp. The tanic acid leachings from the Juniper Tree render the waters a deep amber color, making them clinically sterile. Repelling the growth of harmful bacteria, keeping these waters fresh and pure for many years. This is the only place where this once-in-an-earthtime miracle occurs.

The region is essentially a peat bog, containing the only peat fields still forming on the North American continent. The deep peat beds range from a thickness of 2 to 9 feet, being 75% of the soil formation in the region, containing some 678 million tons of organic matter that becomes inflammable as the water table drains away.

Consider now a few of the natural attributes of this land that is about to be lost:

Dr. A. K. Fisher, Bureau of Biological Survey, Department of Agriculture, identified 29 species of mammel found in the area in early 1900. He listed 10 other species of possible occurrence, or known to be extinct. At that point the American panther had become extinct in the dismal.

During June 1897, Dr. Paul Bartach indexed 70 species of birds, saying that time prevented him from completing his work.

Dr. Raymond L. Ditmars, curator of reptiles, New York Zoological Park, reported at least 10 families of reptiles in the region.

Commissioner Bowers of the Bureau of Fisheries identified 38 species of fish in the lake.

More than 3,000 specimens of plants, flowers, vines, trees and other vegetal outcroppings have been indexed in the swamp, and again the whole is yet to be known.

Austin Hobart Clark, late curator at the Smithsonian Institute made several excursions into the dismal. He reported more than 100 species of butterfly, many rare specimens of grasshoppers, katydids, crickets, etc., he suggested that the region justified a full and complete examination of its flora and fauna. A job that still remains to be done.

Thus, through the eyes of the experts, a reflection of Eden begins to unfold. And yet man hesitates, while a pattern of drainage ditches cut through the heartland of the great swamp, drain and dump its amber strength into the sea.

When first discovered the water table in the area stood approximately 25 feet above mean sea level, or at the surface of the dismal. In early 1800 Lake Drummond enjoyed a depth of some 15 feet. Today, all has changed. The water table in the region is dropping and its lake has been reduced to a shallow depth not exceeding 6 feet.

It now becomes painfully obvious that he who controls the water-use rights of the great dismal is the master of its destiny and sits in judgment as to whether or not this unique region in indeed to have a future.

A study of this controlling factor is most interesting.

Mr. J. M. Alexander, commissioner of the division of ground water, for the Virginia Department of Conservation, indicates that the State of Virginia leans towards the American concept of water rights, "reasonable use," in contrast to the old English law of "unreasonable abuse" of our fresh water resources.

Samuel Weil, Harvard Law Review 1916, defined the American attitude in this matter in the statement that "water running in streams and water courses, (through the earth) is not of itself property of any person. By natural law these three things are common to all people: The air, running water and the sea."

Certain acts passed by the Virginia Assembly, chapter 13, 1787, vested the water-use rights of Lake Drummond, and all the water that enters into it, in the sole and exclusive proprietorship of the Dismal Swamp Canal Company, for the single purpose of navigation. (Compacts of Virginia, vol. 1.)

The edicts of this compact clearly state that it shall not be lawful for anyone to divert, or shut off the water that enters the region from the west, so as to prevent it from continuing to flow into Lake Drummond.

Landowners situated east of the lake, in the Dismal, were permitted to cut "ditches" provided they were spaced a minimum of one mile apart, and were equipped with water control gates, which when closed, would completely seal off loss through these ditches. These control facilities were to be built, maintained and operated by the landowner using same, and the canal proprietors retained absolute demand as to when such gates were to be closed.

The authority of the Virginia Assembly to vest these water-use rights in anyone except the landowners, was challenged by law suit in 1902, tried and appealed, being settled in 1908. (163 Federal Reporter. pp. 238-242.)

The court upheld the canal charter in every respect, closing the case with the warning that "it shall not be lawful for anyone to divert or cut off the waters flowing from the west into Lake Drummond, etc."

In spite of all these laws and law suits what do we find?

December 30, 1968, a letter from the Virginia State Forestry Service, at Portsmouth, Virginia said, "over one hundred miles of drainage ditches has been constructed in the Virginia portion of Dismal Swamp, in recent years. Approximately one-half of these ditches have water control gates while the other half permits water to escape in very short periods."

February 12, 1971, Mr. M. M. Sutherland, director of the Virginia Department of Conservation wrote, "the construction of numerous drainage ditches in the eastern portion of the Dismal Swamp are instrumental in the reduction of the water level, which in turn increases the fire hazard and the difficulty of control."

A dangerous crisis threatens the Great Swamp. As its water resources are drained away, the 678 million tons of organic matter that forms its heartland grows ever more inflammable.

The chief of the Virginia Forestry Service, Mr. George W. Dean, writing in the Virginia Journal of Science, September 23, 1968, made this point very clear. He asserted that "the immediate factor that will determine the characteristics of the Great Dismal Swamp in the year 2500 A.D. is FIRE!"

During 1929 the Federal Government bought the Dismal Swamp Canal, inheriting all the special rights as enjoyed by the original owners, and bound by such restrictions as occur in the canal charter. The operation of the canal, since that date, has been the responsibility of the U.S. Army Corps of Engineers.

Repeated requests for the corps to exert its authority and stop the illegal drainage in the Dismal has gained concerned promises, promises that deal in terms of possible damage, et cetera. However, the Canal Charter does not deal in these factors, it states clearly that when these ditches are employed certain controls are a "must."

There is no argument with the rights that certain land grants vested in its beneficiaries. Conversely, there is no room for argument of the authority of the Virginia Assembly to vest the water-use rights of the region in the Dismal Swamp Canal Company, and its heirs and assigns.

However, there is cause for alarm, when in the course of exercising their supposed "rights" certain landowners inflict grievous wounds upon the body of the Dismal, severing its jugular veins, draining its amber strength into the sea in such torrents that the Great Dismal must surely bleed itself to death.


Should this sad event ever occur then the last possible wilderness region in the vast expanse between the mountains and the Atlantic Ocean, will be lost.

Thus we come today to beg, to pray, to plead, to conjole, to dare to hope to cause you to move suddenly, and positively, in the matter of expediting passage of S. 2441, before the heartland of the Great Dismal Swamp is effaced from the map of the Earth forever.

I do not believe any prudent man would ask for more, or that any reasonable man would settle for less.

I Believe

□ □ □ □ □ □ □ □

 THE Great Dismal is NOT a swamp! It is not a disease-ridden slough that traps surface water, holding it captive in its muddy paws until the water becomes stagnant, polluted and poisonous.

The Great Dismal is a world unto itself formed of organia deposits rising upwards from the bosom of the good earth. It is a "natural phenomena" in an unnatural setting, the highest elevation on the last of the Virginia coastal terraces, from whence the landfall drops beneath the restless ocean.

True...the Dismal is clothed in the outward appearance of a swamp. Yet it is the antithesis of the marshy terrain and brackish wash that splashes against most of its ascending abuttals.

The Dismal is the last desperate retreat in an expansive area for the native wildlife that seeks sanctuary within its heartland. Here the remaining species kindred to the region will survive, or become forever extinct.

Here, and here alone, the forces of nature conspired and produced a water product whose natural purity has remained unmatched throughout all the annals of time. Here the God of Nature created an eternal spring of amber elixer that repells bacterial attack, being always fresh and pure.

The Great Dismal is a once-in-an-earth-time miracle, a fresh-water oasis in a salt-water province, perched precariously upon a shelf overlooking the sea. Thus the Dismal IS vulnerable. Its elevated position renders it defenseless. It CAN be drained. It IS being drained!

And...once destroyed, all the remorseful tears, all the pillars of gold, and all the puny efforts of man can NEVER recreate, imitate, or replace the magnificence of the GREAT DISMAL

Alvah Duke 69

Alvah Duke, Historian & Guide

4109 ~~4300~~ George Washington Highway, South
Chesapeake, Virginia 23322

(U. S. 17 & Feeder Ditch, Dismal Swamp Virginia)

Senator BIBLE. The next witness is Mr. Art Wright, Wilderness Society of Washington, D.C.

**STATEMENT OF ART WRIGHT ON BEHALF OF THE WILDERNESS
SOCIETY OF WASHINGTON, D.C.**

Mr. WRIGHT. I would like to have my full statement accepted in the record as though read in full. Suffice for the moment to say that we support, and very strongly so, S. 2441.

Thank you.

Senator BIBLE. Thank you very much. That was a brief point. When you won your case, you got the message.

(The statement referred to follows:)

STATEMENT OF A. T. WRIGHT, REPRESENTING THE WILDERNESS SOCIETY,
WASHINGTON, D.C.

Mr. Chairman and Members of the Subcommittee: The Wilderness Society has long participated with citizen conservationists and environmental groups in efforts to help save what remains of the Great Dismal Swamp in Virginia and North Carolina.

It is a remarkable tribute to the greatness of the Dismal Swamp ecology and environment that despite decades of abuse and even of unlawful drainage of its waters, there is still something worthwhile to study and to save. But time is running out. Thus far all efforts to help the Dismal Swamp have fallen short. The Commonwealth of Virginia passed legislation (HB 825) in 1970 authorizing the establishment of a state park or wildlife area but thus far not much, if anything, has happened. The Dismal is very low on the priority list of the Virginia Dept. of Conservation and Economic Development. So the Great Dismal Swamp continues to waste away under the impact of excessive and possible unlawful drainage of its waters to accommodate timber cutting, corporate farming, subdivisions and the like. Disaster may be in the making if and when the depletion of its waters becomes so severe as to permit almost unquenchable fires in the peat beds which underlie the Dismal or to permit the intrusion of salt water into the aquifer. Both possibilities have been cited by independent experts and officials of state bodies.

The Wilderness Society supports S. 2441 in the belief that a study by the Department of the Interior will provide additional impetus to action to save what remains of the Dismal Swamp. This Subcommittee can be instrumental in the achievement of a crucial environmental goal by approving this bill.

Thank you for the opportunity to appear here today.

Senator BIBLE. The next witness is Dr. Carl Holcomb, on behalf of the Virginia Wilderness Conservation of Virginia.

**STATEMENT OF DR. CARL HOLCOMB, ON BEHALF OF THE VIRGINIA
WILDERNESS COMMISSION CONSERVATION OF VIRGINIA**

Dr. HOLCOMB. I am from Blacksburg, Va., and have been asked to speak on behalf of S. 2441 for the Virginia Wilderness Committee, a group of concerned citizens numbering 400-plus throughout the Commonwealth of Virginia who have been concerned about what is happening to the Great Dismal Swamp of Virginia and North Carolina.

The Conservation Council of Virginia, Inc., of which the Virginia Wilderness Committee is a member, has also authorized me to support the bill in its behalf.

The council is comprised of about 40 participating environmental organizations at work in the Commonwealth of Virginia. May I also say that I speak in my own behalf as a citizen of Virginia who sees an effort to exploit every last vestige of our heritage of unique features of landscape to some kind of development.

The Department of the Interior, the Commonwealth of Virginia, and many others have made studies of the Great Dismal Swamp. All have agreed that it is unique, that it is a biological gem whose highest values is to be perpetuated in its natural state.

One by one we are losing this and other natural areas, our wetlands, our open space, our prime agricultural land, our outstanding rural communities to the subdividers, to the industries which see more profit in capitalizing on some aspect of their value.

Are we so poor that we cannot leave these gems in their prime setting? Are we so callous we are willing to ride roughshod over the last remnants of our natural bounty? I am not trying to be eloquent, Mr. Chairman, I have witnessed and continue to witness the gnawing away of the last few remaining land and water which are not only cherished by so many of our citizens but also have an economic value to us for their natural productivity and their attraction to our millions of tourists.

In this instance also, we have a biological gem with its unusual conditions for maintaining a variety of species of wildlife and vegetation. Who can forget a trip into Lake Drummond and not find that he is experiencing a sight that he will never be able to duplicate?

This bill only asks for a study by a competent authority to evaluate the Great Dismal Swamp as a means of protecting and using it for the highest and best use of the resources involved. We believe that your approval of S. 2441 will not only benefit Virginians but many segments of our citizenry as well.

I think this is what my fellow members want me to say to you and I thank you for the opportunity to present this case.

Senator BIBLE. Thank you, Dr. Holcomb.

Mr. Kiley.

STATEMENT OF MR. STEPHEN KILEY, EASTERN REGIONAL DIRECTOR, NATURE CONSERVANCY

Mr. KILEY. I would like to thank you very much, Mr. Chairman, for the opportunity to appear here and to make a few remarks in support of our position which would be in behalf of the study.

The conservancy is very favorably disposed to the Dismal Swamp, feeling that it is without question one of the few remaining wildernesses on the eastern seaboard. We would be pleased to see the study go forward, and a brief commentary on the boundaries, and we are delighted that the Park Service is considering such a large area.

We would commend for particular attention and recommend perhaps a smaller section for specialized study, approximating 200 square miles, or 125,000 acres bound on the north by the railroad tracks, on the east by the Intercoastal Waterway, and on the south by Route 158, and also the natural edge of the swamp, and on the west by Route 32.

This is not to say that a larger take line should not be established, but the boundaries I have indicated would be by far the most valuable portion of the Dismal Swamp and perhaps one major contiguous hold.

In our opinion, the Dismal Swamp represents one of a kind remaining now. It is a remnant of what it once was. It would be in the league with the Okefenokee in Georgia. It represents the line of de-

marcation between north and south. It is at this latitude that the Gulf Stream turns east and goes seaward, which represents here ecologically a crossover zone between north and south.

You have species of both the northern origin and the southern origin, and because of the disagreement, nature as far as man, the Dismal Swamp has not truly been explored or scientifically researched. So it affords an excellent opportunity for an outdoor laboratory.

It would also represent a tremendous recreational asset of limited nature, depending on the study. I think you will find both of these pockets.

There have been numerous comments already on the significance, historical, hydrological, ecological. I think with that, I will conclude my remarks in support of your position to go forward with the study, and to take further action in preserving Dismal Swamp.

Senator BIBLE. I am happy to have had you here, and I am glad to have been able to invite you.

Senator BIBLE. Mr. George Rymal, executive vice-president, Chesapeake Chamber of Commerce, Chesapeake, Va. Is he here?

Without objection, his statement will appear in full in the record.

(The statement referred to follows:)

STATEMENT OF GEORGE R. RYMAL, EXECUTIVE VICE PRESIDENT OF THE CHESAPEAKE (VIRGINIA) CHAMBER OF COMMERCE

Mr. Chairman and members of the subcommittee: I am George R. Rymal, Executive Vice President of the Chesapeake Chamber of Commerce.

I sincerely appreciate this privilege of appearing before you today on behalf of the Chesapeake Chamber of Commerce to discuss the Great Dismal Swamp and the Dismal Swamp Canal.

Much has been written concerning the awe, grandeur, wonder and mystery of the Great Dismal Swamp. This vast ecological wonderland, though located near a large metropolitan area, still presents one of the few remaining natural settings on the East Coast of the United States. The challenge of exploring and exploiting the Dismal Swamp has intrigued many United States citizens including General George Washington. This desire to harvest the seemingly inexhaustible supply of timber in the Dismal Swamp led in part to the construction of the Dismal Swamp Canal.

Very few if any areas in the once vast Dismal Swamp have not felt the hand and tools of man. Some timbermen have told us there is not a single acre which has not witnessed the ax at one time or another since timber and farming operations began. Still there are a few acres in which the timber, fauna, and wildlife have been reestablished to an extent that few would realize that the area had ever been touched by man. It is toward the preservation of these areas that the Chesapeake Chamber of Commerce has devoted much effort during the past several years at the local, state and national level. Our concept would preserve an area including and surrounding Lake Drummond to a distance of about one-half mile from the shore line and one-quarter mile strips on both sides of the feeder ditch between Lake Drummond and the Dismal Swamp Canal. A narrow band west of the Dismal Swamp Canal now owned and maintained by the U.S. Army Corps of Engineers. Mr. Chairman, the Chesapeake Chamber of Commerce is of the opinion that unless action is taken now to preserve at least this small segment of the once Great Dismal Swamp, our children will not be privileged to visit and marvel at one of the country's greatest assets. We therefore most urgently request that you and this Sub-Committee give the legislation now pending before you, your strongest favorable consideration.



Senator BIBLE. We have done very well on this study. Did you say 650,000 acres were being studied?

Mr. GRISWOLD. No, sir; 350,000 acres are within the study area.

Senator BIBLE. 350,000 acres?

Mr. GRISWOLD. Yes, sir.

Senator BIBLE. That is properly a part of the study. As usual, the Park Service has made it big enough, and I hope you don't want to take in all of North Carolina, but then we will wait and see how you come along.

I have no further questions on any of this. I think I have made a very clear objective of what I am going to do and recommend to the members of the subcommittee and to the full committee and to the Senate of the United States.

I only have one question, and Tom Flynn can respond to this. What is the status of the study legislation?

Mr. FLYNN. No status whatsoever.

Senator BIBLE. There is not any legislation introduced in the House?

Mr. FLYNN. There has been a bill introduced; yes, sir.

Senator BIBLE. There has been a bill introduced?

Mr. FLYNN. There have been no hearings.

Senator BIBLE. All right. There has been a bill introduced, but no hearings on the House side. For those of you interested in the study, I suggest to you that you see your Congressman from that area and the Congressmen from the North Carolina areas and evidence your interest to my counterpart on the House side, a South Carolina Congressman, Roy Taylor.

I think he is inland. But you should make your comments known and your interests known and see that you have some hearings there. It is my intention to move very quickly on this bill.

The record will be kept open for 10 days. We will have some movies, but before we have movies, I am going to proceed to the other bill.

(Whereupon, at 10:55 a.m. the subcommittee proceeded to the consideration of other business.)

(Subsequent to the hearing the following statement was received:)

STATEMENT OF BARBARA RACINE, ENVIRONMENTAL CHAIRMAN, LEAGUE OF WOMEN VOTERS, NORFOLK-VIRGINIA BEACH, VA.

Gentlemen, I am Barbara Racine, Environmental Chairman, League of Women Voters of Norfolk-Virginia Beach, and the Chairman of the Dismal Swamp Preservation Committee for the Conservation Council of Virginia.

The League of Women Voters interest in the Dismal Swamp is contained within the area of our study on Water Resources. Dismal Swamp serves as a sponge area and according to the information we received from weather experts, the fact that Tidewater has Dismal Swamp, prevents the area from having severe droughts.

Dismal Swamp, for the most part is a wilderness area. What areas that have been cleared will come back if allowed.

Dismal Swamp is in the midst of a growing Metropolitan area and the threat of development becomes greater.

Action must be taken now. The League of Women Voters of Norfolk-Virginia Beach supports the Committee's request for a feasibility study of the Dismal Swamp.

Thank you.



