

(Mr. Blatnik resumed the chair.)

Mr. BLATNIK. Any further questions or comments?

Mr. MCCARTHY. Thank you, Mr. Chairman.

Mr. DULSKI. Thank you, Mr. Chairman.

Mr. BLATNIK. Thank you, Congressmen.

PORT JEFFERSON HARBOR, N.Y.

The next project is Port Jefferson Harbor, N.Y. The witnesses are Mr. H. Lee Dennison, executive director, Suffolk County Riverhead, Long Island, N.Y.; and Mr. Ernest J. Corrado, American Merchant Marine, Inc., Washington, D.C.

STATEMENT OF ERNEST J. CORRADO, AMERICAN MERCHANT MARINE, INC., WASHINGTON, D.C., ACCOMPANIED BY HENRY WEINKAUFF

Mr. CORRADO. My name is Ernest J. Corrado. I am legislative assistant to Mr. Ralph Casey, president of American Merchant Marine Institute. Mr. Casey was called out of town on business today, so I am appearing on his behalf. And Mr. Weinkauff, special consultant to the institute on the Port Jefferson project, is appearing with me.

I must say, Mr. Chairman, I appear as a witness in favor of this project with some disappointment and some anguish since the Congressman of the district appeared this morning in opposition. I hope though that an examination of the facts will show that the merits are on our side. I believe that they are.

With your permission, Mr. Chairman, I would like to submit our statement for the record and just summarize our points in favor of this project.

Mr. BLATNIK. That will be very helpful. Without objection, it is so ordered.

(The statement follows:)

STATEMENT OF AMERICAN MERCHANT MARINE INSTITUTE, INC.

My name is Ernest J. Corrado. I am Legislative Assistant in the American Merchant Marine Institute, a national trade association composed of thirty-two United States companies which own and operate nearly 500 U.S.-flag oceangoing passenger and general cargo vessels, tankers, and dry bulk carriers in the foreign and domestic trades of the United States. Certain of our member companies and others operate tankers to terminals in Port Jefferson Harbor, New York.

We are very grateful for the opportunity afforded us of presenting this statement in support of the Port Jefferson Harbor improvement project which, as recommended by the Chief of Engineers, Department of the Army, would provide for (1) deepening the channel from 26 to 40 feet, mean low water, and widening from 300 to 350 feet from deep water in Long Island Sound to the head of the harbor, a distance of about 2.3 miles, and (2) a turning basin near the inshore end of the channel 30 feet deep, 700 feet wide and 1,400 feet long.

The need and economic justification of the Port Jefferson Harbor improvement project are fully established in the report of the Chief of Engineers which includes the report of the New York District Engineer, U.S. Army Corps of Engineers, published in House Document No. 277 (90th Congress, 2nd Session). The purpose of our statement is to bring to your attention some of the more important reasons and factors in support of this improvement project.

BENEFITS TO GENERAL PUBLIC

As stated by the New York District Engineer in Paragraph 67 of his report, the benefits or savings in transportation costs that would result from the use

of larger tankers at fully-loaded draft on a 40-foot channel into Port Jefferson Harbor "would reach the general public at lower prices for the products or as additional services offered to the consumer." The District Engineer also stated that "savings in transportation cost to the Long Island Lighting Company would be reflected in the rates charged users of electric power." The latter statement has been confirmed by the Long Island Lighting Company. One of the principal factors which determine the ultimate cost of products to consumers is the cost of transporting such products. Accordingly, a decrease or increase in the cost of transportation will have a corresponding effect on the consumer price structure.

As you know, the policies, standards and criteria which the U.S. Army Corps of Engineers is required to follow in evaluating the economic justification of waterway improvement projects and which are contained in Senate Document No. 97 (87th Congress) stipulate, among other things, that benefits estimated to accrue from a waterway improvement project must exceed the cost of such project in order that the project may be considered to be economically justified. In the case of the Port Jefferson Harbor improvement project, the benefits estimated to accrue from the improvement project exceed the cost of the improvement by a ratio of 6 to 1, according to the report of the Chief of Engineers and New York District Engineer. This means that for every dollar the Federal Government might invest in this improvement project, benefits equivalent to \$6.00 would be returned. This, of course, is a very favorable benefit-cost ratio.

EFFECT OF INTERNATIONAL LOAD LINES CONVENTION, 1966

The new Load Lines Convention will come into force on an international basis July 21 of this year, as a result of which the freeboards of all qualified U.S. and foreign-flag vessels, including tankers operated to Port Jefferson harbor, will be reduced considerably, enabling these vessels to operate at deeper drafts, thereby reducing transportation costs and increasing the cargo-carrying capacity and revenue-earning capability of such vessels. The operation of these vessels at deeper drafts resulting from the assignment of the reduced freeboards in the new Convention makes it all the more necessary that the present 26-foot channel into Port Jefferson Harbor be deepened to 40 feet in order to adequately accommodate such vessels.

CHANNEL DEPTHS AT ORIGIN PORTS

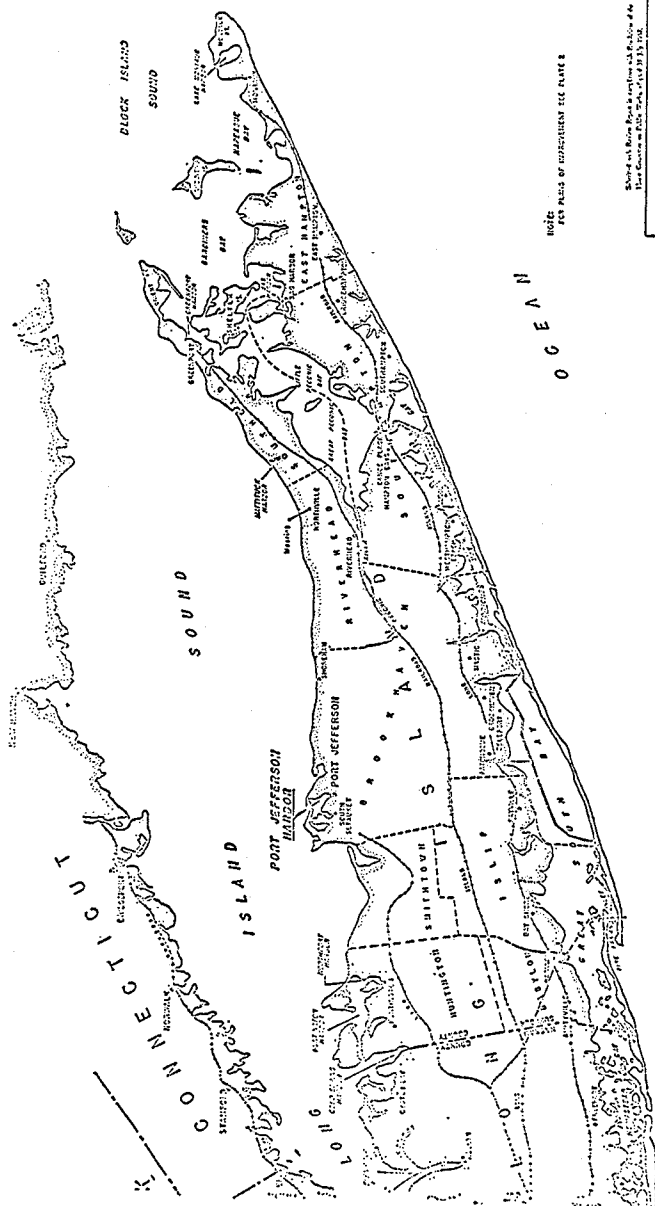
We wish to point out that a deeper channel into Port Jefferson Harbor is necessary in consideration of the fact that channels in practically all major ports on the U.S. Gulf coast from which petroleum products are shipped to U.S. ports on the Atlantic coast have been deepened to 40 feet. In line with this general trend, the channel to Providence Harbor, Rhode Island, is now being dredged to 40 feet and a channel of the same depth is expected to be approved for New Haven Harbor.

ELIMINATION OF OIL BARGE TRAFFIC AND TERMINALS

Reduction in the cost of transporting petroleum products into Port Jefferson Harbor through the use of larger tankers fully loaded on a 40-foot channel below the cost of transporting such products in barges from New York Harbor would, we believe, have the effect of gradually eliminating oil barge traffic in this harbor since distributors using barges will not be able to compete with the lower transportation costs of petroleum products carried in fully-loaded large tankers.

MULTIPLE USER ASPECT

The New York District Engineer, North Atlantic Division Engineer, Board of Engineers for Rivers and Harbors, Chief of Engineers and Secretary of the Army have all rejected the contention made by certain interests that the improvements recommended for accomplishment in Port Jefferson Harbor would benefit only a single company, namely, Consolidated Petroleum Terminal, Inc. The fact of the matter is that there are even now multiple users of the existing 26-foot channel and there will be additional users of the 40-foot channel when it is made available. The Long Island Lighting Company has stated that they would dredge an access channel to their berth from the 40-foot channel. Furthermore, Consolidated Petroleum Terminal, Inc., simply acts as a distribution agency for oil companies which deliver petroleum products to their dock in Port Jefferson Harbor for



Scale of Nautical Miles and Fathoms, and of Feet and Inches

PORT JEFFERSON HARBOR, NEW YORK

GENERAL MAP

Scale of Nautical Miles and Fathoms, and of Feet and Inches

1 Nautical Mile = 6080 Feet

1 Fathom = 6 Feet

1 Foot = 12 Inches

1 Mile = 5280 Feet

1 Nautical Mile = 1.15 Miles

1 Fathom = 1.1 Feet

1 Foot = 0.3 Feet

1 Inch = 0.083 Feet

1 Mile = 1.6 Nautical Miles

1 Nautical Mile = 0.6 Miles

1 Fathom = 0.001 Miles

1 Foot = 0.0003 Miles

1 Inch = 0.00008 Miles

SCALE IN MILES

1 Nautical Mile = 1.15 Miles

1 Fathom = 1.1 Feet

1 Foot = 0.3 Feet

1 Inch = 0.083 Feet

1 Mile = 1.6 Nautical Miles

1 Nautical Mile = 0.6 Miles

1 Fathom = 0.001 Miles

1 Foot = 0.0003 Miles

1 Inch = 0.00008 Miles

storage in Consolidated's tanks and subsequent distribution and marketing. Consolidated does not own any of the oil. The oil companies are therefore also to be considered as users of the present channel and prospective users of the proposed 40-foot channel.

NEED FOR DEEP-WATER HARBOR ON NORTH SHORE OF LONG ISLAND

There is at present no harbor on the north shore of Long Island capable of adequately accommodating modern oceangoing vessels. A deep-water harbor on the north shore capable of accommodating such vessels is greatly needed. The District Engineer, in his report, states as follows: "The population of Suffolk County, which comprises the tributary area of Port Jefferson Harbor, has been increasing at an accelerated rate, *greater than the national average*. A projection of the population growth in this county indicates that the population will increase from 667,000 in 1960 to about 1,000,000 in 1970 and will continue to rise to about 3,000,000 in 2020." [Italics supplied.]

The District Engineer, in his report, refers to the fact that receipt of petroleum products in Port Jefferson Harbor increased from 91,657 tons in 1945 to 947,530 tons in 1964 and that indications are that in 1970 the domestic and foreign petroleum commerce in Port Jefferson Harbor will amount to 1,460,000 tons in the year 2020 the domestic petroleum commerce will amount to 3,900,000 tons and foreign petroleum commerce to 75,000 tons.

The industrial, residential and economic development of the middle and eastern sections of Long Island is progressing at a rapid rate and is very much in need of a deep-water harbor on the north shore of Long Island as a means of access for modern oceangoing vessels. As clearly indicated on the attached chart, a 40-foot channel into Port Jefferson Harbor is absolutely essential to serve the increasing requirements in the foregoing respect throughout Suffolk County and within the Town of Brookhaven, which includes the Village of Port Jefferson. It is imperative that the need of Suffolk County, which comprises more than one-half of Long Island to the east of Nassau County, and the Town of Brookhaven for a deeper channel on the north shore in the natural harbor at Port Jefferson be accorded favorable consideration. The great benefits that would be derived by the commercial, industrial and residential interests in Suffolk County, including the Town of Brookhaven, from a 40-foot channel at Port Jefferson should be the determining factor in connection with the decision by this Subcommittee and the Senate Committee on Public Works to include the Port Jefferson Harbor improvement project in the River and Harbor Authorization Act of 1968.

In addition, plans are now being formulated for the construction of a bridge across Long Island Sound which will connect the middle or eastern end of Long Island with Connecticut or Rhode Island. The construction of this bridge will have the effect of further accelerating the industrial, residential and economic growth of this area of Long Island since it would afford a much shorter route for commercial and passenger traffic between Long Island and New England.

The American Merchant Marine Institute strongly urges the inclusion in the Omnibus River and Harbor Authorization Bill of the Port Jefferson Harbor improvement project as recommended by the Chief of Engineers, Department of the Army. The favorable consideration of our views and recommendation will be most helpful and much appreciated.

MR. CORRADO. As you may know, the American Merchant Marine Institute is a maritime trade association, comprising 32 U.S. companies, which own and operate nearly 500 U.S.-flag oceangoing passengers and general cargo vessels, tankers, and dry bulk carriers in the foreign and domestic trades of the United States.

This morning the Congressman indicated, I believe the record would show, that he indicated that one of the reasons he was opposing this project was that it would only benefit one local petroleum company. Well unless I have been badly confused, I am appearing as a witness here today in favor of a number of our oil company members which carry petroleum products into Port Jefferson. And also at this time I would like to say I think that this oil company that he is speaking of is more or less in the nature of the tank farm that stores the oil.

And our member companies and other oil companies bring the oil into Port Jefferson Harbor and then this company stores it, and it is distributed throughout the area, and also the Long Island Lighting Co. does this.

So I would think more properly that this benefits the companies and the distributors throughout the area. I just wanted to make that point so we could at least have two views of that subject.

This improvement, harbor improvement project was recommended by the Chief of Engineers, Department of the Army, and it would provide for deepening the channel from 26 to 40 feet and widening it from 300 to 350 feet from the deep water of Long Island Sound to the inner head of the harbor, a distance of 2.3 miles. And it would also provide an inner turning basin, 30 feet deep, 700 feet wide, and 1,400 feet long.

Our points in favor of these improvements are as follows:

No. 1 is the very favorable benefit-to-cost ratio. According to the report of the Chief of Engineers and the New York district engineer, the benefits estimated to accrue from the Port Jefferson project would exceed the cost of the improvement by a ratio of 6 to 1. As you know, this means that for every dollar that the Federal Government might invest in this improvement project, benefits equivalent to \$6 would be returned. We think that this is an extraordinary benefit-cost ratio and is a significant justification for the project.

The second reason why we support this is the benefits for the general public. The New York district engineer stated in his report that the savings in transportation costs that would result from these improvements "would reach the general public as lower prices for the products or as additional services offered to the consumer."

He also stated that "savings in transportation cost to the Long Island Lighting Co. would be reflected in the rates charged users of electric power."

This has been confirmed by the Long Island Lighting Co. As you know, decrease or increase in the cost of transportation will have a corresponding effect on the consumer product structure.

Third, the channel depths at origin or other ports. This project would give Port Jefferson the same channel depth, 40 feet—as most major ports on the U.S. gulf coast from which petroleum products are shipped to Atlantic ports—appeared in line with this trend; the channel to Providence Harbor is being dredged to 40 feet and approval is expected for dredging the New Haven Harbor also to 40 feet.

Fourth, the elimination of oil barge traffic and terminals. The reduction in cost would have the effect of gradually eliminating oil barge traffic in this harbor.

Our fifth reason is the need for deep-water harbor on the north shore of Long Island. At present there is no deep-water harbor on the north shore of Long Island, nor indeed to my knowledge is there one on the south shore. The district engineer stated in his report that the population of Suffolk County, the tributary area of Port Jefferson Harbor, has been increasing at an accelerated rate, greater than the national average. And the projection of the population growth of the county indicates that the population will increase from 667,000 people in 1960 to about 1 million in 1970 and 3 million in the year 2020.

In addition, the receipt of petroleum products increased 91,667 tons in 1945 to 947,000 tons in 1964. And my information is that at the end of this year the petroleum products flow will be 1,200,000 tons, when facilities under construction are completed. This is far beyond even the projection of the Corps of Engineers.

Mr. BLATNIK. Would you stop just a minute there, Mr. Corrado, to clarify the statement made, I believe earlier, that this would be a single-user project. The project would benefit primarily a single user. You talk of the tonnages of domestic and foreign petroleum commerce. Are those several companies involved? Can you give us a better description, on whose oil this is, and who is the consumer, who is the producer?

Mr. CORRADO. Many of the large oil companies—seven, in fact, and several more will probably be added because contracts are being discussed—but at present seven of the large oil companies carry their products into the harbor, and Consolidated Petroleum and Long Island Lighting Co., which are local companies, are companies which receive this oil. And then it is distributed by the distributors throughout the area of Nassau and Suffolk Counties.

So I do not think really it is accurate to say that just one company would benefit or that it is really a single-user operation.

Mr. WEINKAUFF. Mr. Chairman, may I make one comment? This single-user problem came up during the course of the report. The Corps of Engineers did not consider it single user, and the Bureau of the Budget gave it a clean bill of health and did not raise the question of a single user here. I bring that to your attention.

Mr. BLATNIK. That is a good explanation. We have a good description of the project, good reasons for urging adoption, approval of this project, Mr. Corrado. So if there are no other comments—any questions from the committee?

Mr. Harsha?

Mr. HARSHA. Mr. Corrado, despite the fact that you have a good benefit-cost ratio, you have got a good right arm there with Mr. Weinkauff. I am sure that you cannot obtain better advice on your problems than Henry can give you.

I did want to ask you a couple questions. You are widening this channel 350 feet and deepening it to 40 feet. Does this provide for these extra-large tankers? Will they be able to go in and out of there?

Mr. CORRADO. Forty-foot depth, Mr. Harsha, will provide for up to 60,000-ton tankers. I do not believe the draft will allow for a larger draft tanker than that.

Mr. HARSHA. One other comment. That is that the Secretary of the Army states that non-Federal entities may be interested in developing alternative facilities for the transportation of petroleum in the area. And accordingly, it was suggested that if the project is authorized that the corps review this matter during the present construction planning. Now, do you know what they are talking about when they refer to alternative facilities, what they have in mind?

Mr. WEINKAUFF. Mr. Harsha, this report has been in progress now for some 4 to 6 years; and at one time there was a company 23 miles to the east who were interested in developing a pipeline, but at the present time they are definitely not interested in this alternative. It will not be constructed.

And the Secretary of the Army, of course, after authorization, as you well know, the corps reviews the project; and although we did not like the remark about further studies, it is an ordinary course of events in any study before appropriations, so we are satisfied with the remark. And it would go through that process anyway.

Mr. HARSHA. You heard this morning the statement by the Congressman from that congressional district, that the project was controversial. What is the controversy and can you enlighten us a little?

Mr. CORRADO. My understanding of it is, the only people who opposed the project are the people of the village of Port Jefferson, which is a small village, I understand several thousand people. My understanding is that most of the other people of the area are in favor.

Now, this morning the Congressman indicated that the town of Brookhaven was opposed. Yet, we would like to submit letters to the record from the town of Brookhaven saying they favor the project.

Mr. HARSHA. What is that opposition of the one town you are familiar with?

Mr. CORRADO. It is my understanding that it has been a small village, and they really oppose larger business coming in, and they are afraid there will be a lot of heavy traffic generated by this, and traffic into the harbor being increased traffic.

As a matter of fact, when you have larger tankers coming in, you will have less traffic than you would with a lot of barges.

Mr. HARSHA. Do they anticipate industrial development in the area as a result of this?

Mr. CORRADO. I think they probably do. I would imagine this would result in industrial development. We have to remember, Mr. Harsha, that the area is gaining, growing, and expanding rapidly, industrially, and populationwise, and economically. And although there might be growth in this direction, the growth also requires business improvement. I mean it is a two-way street, I think. It cuts both ways.

Mr. WEINKAUFF. Mr. Harsha, also we think the village is protected in that they have zoning powers. They have already exercised these zoning powers to limit the expansion. And in addition, Consolidated Petroleum, their tank farm, is some 3 miles away from the harbor area. They receive at their harbor area, and they pipeline it into the tank farm. The following are in favor of it: Suffolk County, Mr. Dennison, who could not appear today, the town of Brookhaven, and with your permission which I will submit for the record the letter of Brookhaven was sent to Senator Young in the Senate. As a matter of fact, there is a letter in the report which the town of Brookhaven offers to supply the local cooperation. Also, New York State, the Greater Port Jefferson Chamber of Commerce, the Long Island Association of Commerce and Industry, and the Oil Heat Institute of Long Island, Inc.

So it has quite wide support. With your permission I would like to have Mr. Dennison's statement for the record.

Mr. HARSHA. Thank you. May that be incorporated in the record?

Mr. BLATNIK. Yes. Without objection, so ordered.

(The information referred to follows:)

STATEMENT OF H. LEE DENNISON, COUNTY EXECUTIVE, COUNTY OF SUFFOLK

This to emphatically emphasize my full support of the proposed dredging of Port Jefferson Harbor, Suffolk County, L.I., State of New York.

The present channel of the harbor is entirely inadequate to serve present deep water port facilities for a New England ferry, the importation of crushed stone for highway purposes, and of breakwater and groin stone, together with major terminals for delivery of fuel for a great power complex of the Long Island Lighting Company, and also to serve the great part of the present million resident home owners of the County. Said population will reach two million people before 1985.

Because of the condition and shallow depth of said existent channel, fuel carriers must wait upon tides or the fuel must be carried by smaller barges and tankers. The added cost of such inefficient and ineffective means of fuel transportation is reflected in monthly bills to the home owner.

If the channel can be improved and modernized as recommended, it will be of County-wide benefit to the citizens of the County not only in reflected fuel costs, but also in consideration of a parallel program of harbor improvement under which existing fuel storage tanks lining the harbor would be removed and the local delivery system by trucks replaced by pipeline delivery. This in itself would result in tremendous improvement to the present highway congestion generating from our population explosion.

The County planning people, all areas of business, finance and industry, the Town of Brookhaven, the local Chamber of Commerce are on record in favor of the proposed dredging improvement. The Village of Port Jefferson, which owns no frontage and has no jurisdiction over any of the harbor waters, is presently opposed to the dredging, although heretofore said Village has been on record in favor of it.

I understand Congressman Otis Pike has testified before you against the dredging improvement, reportedly on the grounds that the Federal Government is looking for ways and means to cut expenditures, and that the Port Jefferson project can be easily put off until some future time, if ever.

As the administrative head of the County government, I believe I am in as good a position as anyone, including congressmen, to judge the value of public works projects as concerned with the County's general economy and the public interest. Without any question in my mind, the dredging project as proposed will ultimately have to be accomplished regardless of any objection. Since construction costs rise at least five percent every year, it doesn't make sense to put off what I consider a useful and needed public improvement.

I strongly urge approval of the project of accomplishment. I am enclosing a copy of my notes to the Senate Committee relative there to, for your information.

COUNTY OF SUFFOLK, June 5, 1968.

MR. JOSEPH F. VAN VLADRIKEN,
New Senate Office Building,
Washington, D.C.

DEAR MR. VAN VLADRIKEN: This is to supplement my remarks of 21 May before the Subcommittee on Flood Control—Rivers and Harbors of the Senate Committee on Public Works concerning the proposed dredging of Port Jefferson Harbor, Long Island, New York. As the administrative head of the County Government of more than one million people, I am in full and aggressive support of the Port Jefferson Harbor project as being completely in the public interest and as being necessary to the overall County general economy.

One of the serious problems of the explosive growth that has occurred in Suffolk County through the past 18 years has been transportation. It is exceedingly necessary that all four forms of transportation be developed to meet the needs of said explosive growth in order to efficiently, effectively, safely, and economically move people and goods. There are presently being undertaken in the County and on Long Island the development of major highway transportation patterns, airports, rapid transit by rail, and deep water ports and marine commerce. One of the port development projects of vital importance to the County is Port Jefferson Harbor. The channel proposed will permit greatly expanded operation for the importation of fuel by tanker or the supply of tank farms from which future pipelines will help to relieve truck conveyors on the highways. At the same time, the channel proposed will lay the ground work for the development of marine commerce and cruise ships which could be of great benefit to the County's economy. It should be noted here that we are an island and must import all of the daily necessities from building materials to clothing, except fish and potatoes which are produced at home.

I strongly recommend that the Harbor improvement which has been the subject of this lengthy discussion and hearings be finally implemented and accomplished.

Cordially,

H. LEE DENNISON, *County Executive.*

TOWN OF BROOKHAVEN,
Long Island, N.Y., May 27, 1968.

Re Port Jefferson Harbor.

HON. STEPHEN M. YOUNG,
Chairman of the Subcommittee, Subcommittee on Flood Control—Rivers and Harbors of the Senate Public Works Committee.

DEAR HONORABLE YOUNG: I was unable to attend the hearing held on May 21, 1968 before your Committee in Washington.

I am enclosing a copy of a letter dated August 9, 1966 in which former Supervisor Dominy, representing the Town Board, went on record as being in favor of this project.

There has been no change in the attitude of the Town Board and hope you will give this project every consideration.

Sincerely yours,

CHARLES W. BARRAUD, *Supervisor.*

TOWN OF BROOKHAVEN,
Long Island, N.Y., August 9, 1966.

COL. EDWARD B. JENNINGS,
Acting Division Engineer, Department of the Army, North Atlantic Division, Corps of Engineers, New York, N.Y.

DEAR SIR: In reference to your notice of 21 July 1966 regarding Port Jefferson Harbor, the Town of Brookhaven has been and is on record as being in favor of this project.

At one point, during the original investigation, we held up our approval pending the approval of the Village of Port Jefferson, which it subsequently approved.

The Town has not changed its position and is still in favor although I understand that the Village of Port Jefferson now has some reservations. I am sure if this becomes an actual fact, the Town will be able to supply the easements, rights of way, etc. and also arrange for the areas for spoils. It is the opinion of the town that this would be an asset to the area and a credit to the Corps of Engineers.

Very truly yours,

CHARLES R. DOMINY, *Supervisor.*

NASSAU-SUFFOLK REGIONAL PLANNING BOARD,
Hauppauge, Long Island, N.Y., July 2, 1968.

Re proposed dredging of Port Jefferson Harbor, Suffolk County, Long Island, N.Y.

HON. JOHN A. BLATNIK,
Chairman, Subcommittee on Rivers and Harbors, Committee on Public Works, House of Representatives, Congress of the United States, Washington, D.C.

DEAR MR. BLATNIK: I wish to inform you of my position relative to the proposed dredging of Port Jefferson Harbor. Since 1960, when the matter was first discussed before the Suffolk County Planning Commission, my position has been one of support for the project. The Suffolk County Planning Commission, by official resolution, endorsed this work. It is my understanding, from discussions that I have held with County Executive H. Lee Dennison, that the only opponents to the project are the Congressman from the First Congressional District and the village officials of Port Jefferson. The Town of Brookhaven, in which the project would occur, also supports the proposed dredging.

I, therefore, urge that your Subcommittee consider the overwhelming support for this endeavor and reach a favorable recommendation thereto.

Thank you for your consideration of my appeal.

Very truly yours,

LEE E. KOPPELMAN,
Executive Director.

GREATER PORT JEFFERSON CHAMBER OF COMMERCE,
Port Jefferson, N.Y., June 21, 1968.

Re Subcommittee on Flood Control Rivers and Harbors.

Hon. JOHN A. BLATNIK,
*Chairman of the Subcommittee on Rivers and Harbors, House Committee
 on Public Works, Washington, D.C.*

DEAR CONGRESSMAN: In reference to the Port Jefferson Harbor Improvement Project I wish that the following statement be submitted for the record:

The Greater Port Jefferson Chamber of Commerce over one year ago formally voted on the merits of the 2.4 million dollar Port Jefferson Harbor Improvement Project. At that time a clear majority favored the project.

We have not reviewed or changed our stand since that time.

Sincerely,

DAVID L. ROSNER, D.D.S.,
President.

THE INCORPORATED VILLAGE OF PORT JEFFERSON,
Port Jefferson, N.Y., May 20, 1968.

Mr. Chairman and Members of the Committee:

As Village Clerk, I have been instructed by the Board of Trustees of the Incorporated Village of Port Jefferson to read to you the following statement concerning the project for Port Jefferson Harbor now being considered by this Committee.

To the Committee on Public Works of the House of the United States.

The Board of Trustees of the Incorporated Village of Port Jefferson wishes to convey to the Committee on Public Works its firm and unanimous opposition to the improvement of Port Jefferson Harbor which contemplates the dredging of a channel 40 feet deep and 350 feet wide from Long Island Sound to the head of the harbor, and dredging a turning basin in the Harbor 30 feet deep, 700 feet wide and up to 1400 feet long, and which requires federal costs to the Corps of Engineers estimated at \$5,000 annually and \$2,500,000 initially.

The opposition of the Board of Trustees, which we respectfully bring to the attention of this Committee, is based on the following grounds:

First: As indicated by Plate 2 annexed to the Corps of Engineers Review of Reports, Port Jefferson Harbor is surrounded by three incorporated villages, Poquott on the west, Port Jefferson on the south and Belle Terre on the east. These villages, particularly Poquott and Belle Terre which are exclusively residential, are residential in character and would derive no benefit whatever from the proposed improvement of the Harbor. Only Port Jefferson, at the head of the harbor, contains a mixture of residential, business, commercial and industrial uses; but the plan of improvement will not benefit Port Jefferson, either. On the contrary, Port Jefferson will be greatly harmed because the improvement will have a severely adverse effect on recreational boating in the Harbor, a prime source of revenue and commerce for the Village of Port Jefferson. It must be realized that Port Jefferson Harbor, situated on Long Island Sound about 13.5 miles south of Bridgeport, Connecticut, and 56 miles by water east of the New York Battery, has long been a natural attraction for pleasure boats every boating season. It is estimated that approximately 10,000 pleasure craft make their way into the Harbor annually. The economy of Port Jefferson has largely grown up around these craft, and all commercial interests in Port Jefferson, from boat yards, marinas and gasoline docks, to supermarkets and movies, are dependent in a larger or smaller degree upon the annual visits of these pleasure craft. To this end, the Comprehensive Development Plan of the Village of Port Jefferson, undertaken and completed over a period of several years with the aid and advice of professional planning consultants, has hinged the development of Port Jefferson to the continued and enlarged pleasure boating use of the Harbor and calls for the increased development of pleasure boating services and facilities at the head of the harbor. But the massive turning basin, called for by the plan of improvement, would completely destroy a principal mooring area at the head of the harbor for these pleasure craft and will result inevitably in discouraging and turning away from Port Jefferson Harbor a large number of pleasure boats. The merchants of Port Jefferson cannot sustain the economic loss the loss of these craft will represent.

The Board of Trustees notes that the Review of Reports by the Corps of Engineers was authorized by a resolution of July 31, 1957, of the Committee on Public Works of the United States House of Representatives expressly for the purpose of "determining what improvements for navigation are advisable at this time, with particular reference to the dredging of a channel of adequate dimensions to facilitate the movement of present and prospective commerce". The Board of Trustees assumes that a similar resolution may have been adopted by this Committee of the Senate. The proposed turning basin will create a backward movement of commerce away from Port Jefferson, will have exactly the opposite effect intended by this Resolution and will cause a large annual loss to the commercial interests of Port Jefferson.

Second: We, therefore, take issue with the Report of District Engineer who finds there is a need for improvement of Port Jefferson Harbor and estimates (in the Syllabus) that there will be annual benefits of \$491,000. There will be no economic benefits to the public generally and to Port Jefferson in particular. The only concrete economic benefit from the plan of improvement will accrue to one commercial operation, Consolidated Petroleum Company, whose dock is shown at Photo 4 of the Report, and which will benefit from future supertankers pipping in petroleum from the Harbor to its tank storage farm in South Setauket. We dispute any argument to the effect that the improvement would permit Long Island Lighting Company to make any real reduction in its costs because fuel would be brought to it at lower cost. Their oil storage facilities at their power plant are limited and the Board of Trustees does not believe that the increase in tanker size or in the quantity of petroleum products can be taken full advantage of by the Long Island Lighting Company.

We find it necessary to object to the Report of the Corps of Engineers on the ground that it does not correctly or fairly reflect the current position of the Incorporated Village of Port Jefferson. In the recent past, Port Jefferson has openly and clearly made its opposition known to the District Engineers and others. On a letter of April 20, 1967, addressed to Col M. M. Miletich, District Engineer, Mayor Lee spelled out the opposition of the Village. This letter was acknowledged by a letter dated May 2, 1967, from Frank L Panuzio, Chief of Engineering. In another letter dated August 4, 1966, to the Board of Engineers for Rivers & Harbors, Mayor Lee voiced opposition to the proposed improvement and informed in that letter that a prior letter of March 4, 1964, written by the former Mayor Robert L. Robertson, in which it was indicated that the Board of Trustees no longer objected to the improvement was no longer true and did not, for several reasons, reflect the current attitude of the Board of Trustees. In other words, while the Board of Trustees in 1964 did not object to the improvement it did in 1966. It did again in 1967. It does now. Yet the only statement of position of the Incorporated Village of Port Jefferson included in the Report of the Corps of Engineers is the letter of former Mayor Robertson of March 4, 1964 (at Appendix D-8). The recent letters of Mayor Lee unequivocally objecting to the plan of improvement are not set forth. In this respect the Report is misleading and incorrect.

The Board of Trustees, in closing, wishes to bring to the attention of this Committee that the District Engineers' recommendation of the improvement is subject to the condition that local interests will give certain assurances spelled out in the Syllabus. The Incorporated Village of Port Jefferson, for the reasons stated, to the extent that it is requested to give them, is not prepared to supply these assurances.

In conclusion, the Board of Trustees sees no reason for spending millions of tax dollars for the benefit of one private corporation. This same dredging could be done by Consolidated Petroleum now as they did originally. In spite of the fact that the Board has been told that the proposed dredging would economically force the present installations to move to the tank farm, the Board has some reservations. A deep water channel would be an invitation to other industrial operations which some new Board in the future could permit.

Respectfully submitted.

GORDON P. THOMSEN,
Village Clerk.

Mr. CORRADO. Thank you, Mr. Chairman, for the privilege of appearing.

Mr. BLATNIK. Next we have additional witnesses on the the Missouri River navigation, South Dakota, North Dakota, and Nebraska Project.

MISSOURI RIVER NAVIGATION, SOUTH DAKOTA, NORTH DAKOTA, AND
NEBRASKA

**STATEMENT OF FRANK LONG, ATTORNEY, REPRESENTING EIGHT
WESTERN RAILROADS, CHICAGO, ILL.**

Mr. LONG. Mr. Chairman, members of the committee, thank you for the opportunity of appearing here. It is a pleasure to come before the committee to state some views which are contrary to those heard this morning, although I must say I feel often like Daniel in the lions' den in the room when most people favor a project, upon which I take a contrary view.

To clarify the status of the project, a matter which arose this morning, my understanding of the present status of the upper Missouri project is this:

In February of this year the project was forwarded by the Chief of Engineers to the Secretary of the Army. The project subsequently was returned to the Chief of Engineers by the Secretary of the Army in order to obtain a more complete analysis, as I understand it, of the bank stabilization aspects of the project. To the best of my knowledge at the present time the project is still in the Office of the Chief of Engineers and has not yet been returned to the Secretary of the Army.

I believe that is the correct status of the project at this particular point in time.

Mr. Chairman, I think it would aid the committee to see this project in a good overall perspective. To aid the committee in doing so, may I mention these facts; 90 percent of the projected transportation savings which the Corps of Engineers proposes will be the case in connection with this project, 90 percent of such savings will come from the transportation of wheat, not all grains, just wheat.

Now most of the people who have been in favor of this project are interested in improving the city of Yankton, S. Dak., and the areas around Yankton, S. Dak. I might say here in this connection that my concern is chiefly with the navigation aspects of the harbor, with the waterway project, and only concerning the bank stabilization insofar as it may affect the navigation aspect of the project. Nevertheless, most of the people who are in favor of this project are interested in the improvement of Yankton and the surrounding area.

Now a curious fact is that the wheat, which the Corps of Engineers thinks will be the chief commodity moving on the waterway, is not grown around Yankton. Within 75 miles of Yankton very little of the wheat projected by the Corps of Engineers is produced. And I would suggest to the committee that if the wheat industry were universally in favor of this waterway project, that this room would be filled with wheat firms in Minneapolis, from Oklahoma, Kansas City, and from other places advocating the project. We have not seen it here.

We believe that the Corps of Engineers as well as the Department of Agriculture have, and I think understandably, erred in their analysis of transportation savings. As I understand what they have done, they have compared the barge rate on the river from Yankton to New Orleans, with a rail rate from Yankton to New Orleans. This is a rate

from point A to point B, a comparison of the barge rate over that route with the rail rate.

Well, I suppose, this is a good way to compare transportation savings, if you are talking about something like, say, automobiles, which are produced at point A and sold at point B, and the only intervening factor is transportation. The automobile is in the same condition when it finishes its transportation journey as it was when it began. However, we are not concerned with automobiles in this case nor with any commodity remotely similar. We are concerned with wheat.

Wheat produced on the farm starts its transportation journey generally by rail from a country elevator. It may end up in Buffalo, not as wheat, it may end up in Buffalo as flour.

Now, gentlemen, during the course of this transportation journey, wheat is changed, it is graded, it is inspected, it is stored, and it is milled, it is processed, and it makes several transportation moves in the course of say a year or year and a half or more.

And when the wheat finishes its transportation journey, it is not recognizable as the same commodity which started out from the farm. This is a much different situation than automobiles or as the corps would have it, it is not at all the same if you are comparing transportation savings as comparing barge rates with the comparable rates over the same route.

As a matter of fact, the basic competitor to barge movement on the Mississippi of wheat is not rail rates or rail movements over the same route, basic competitor to the barges, transporting wheat on the Missouri River are the wheat markets and the techniques and processes of marketing wheat, which, as the chairman knows, are concentrated in Minneapolis and in other wheat markets in the Middle West and perhaps as far east as Chicago or Buffalo.

Now transportation so far as it is concerned in this process of marketing wheat is merely the means of moving the wheat where the people dealing in it can take advantage of the natural functionings of the wheat markets. And as such, the techniques and processes of marketing wheat as they have existed in this country for many, many years, and as I am sure they will exist for many, many more years, is an interrelationship and interaction of oil transportation primarily with the market functioning.

It is, therefore, absolutely an error, we feel, for the Corps of Engineers to compare merely rail rates with barge rates. I say that the error is understandable because the marketing of wheat and the rail transportation of wheat is a tremendously complex subject. The concepts themselves are difficult in understanding. And the concepts are based upon pragmatic occurrences which are themselves quite complex. It is not a simple matter, you see, for a ton of wheat to move from the farm to all the processes necessary to produce a ton of flour in Buffalo.

As to the basic validity of the corps' analysis of the project, as compared with our own analysis—and I might say the railroads: the Sioux Line, Great Northern, Northern Pacific, Burlington, Milwaukee Road, the roads I represent, has spent a considerable amount of money to find out that wheat simply will not move by barge from Yankton, even if the project is completed.

This project, on completion, will have, we feel, no effect whatsoever on the present marketing structures. It will have no effect whatsoever on rail rates for the transportation of wheat. Real rates change from time to time, yes, of course. But that changes in response to factors quite apart from competitive barge transportation. They involve changes as a direct response to the needs of shippers who are dealing in wheat and not in response to competition from barges.

As a matter of fact, it is possible that South Dakota wheat can find its way to New Orleans cheaper by moving from the tributary area in South Dakota to Minneapolis by rail and to eventually move by barge down the Mississippi to New Orleans. It is not only perhaps cheaper from a transportation charge standpoint—the fact of the matter is that the movement of wheat in that direction over such a route would produce in New Orleans not the raw South Dakota wheat, it would produce in New Orleans a blended wheat, that is a wheat mixed with other wheats to meet a particular standard necessary for the export market. And that wheat would arrive ready blended in New Orleans.

I might say the process of blending is not economically done in New Orleans. And to this date, I do not know of any extensive blending facilities in New Orleans. The point is that if anyone wants to export South Dakota wheat from New Orleans or other gulf ports, this is fine, and it might just as well arrive in New Orleans by barge; but the point is it might cost less in terms of transportation charges to the owners of that wheat if it came not from Yankton, but from Minneapolis. And it got to Minneapolis of course by rail, as most of the wheat does.

Members of the committee, the Corps of Engineers predicates a 1.3-to-1 benefit-cost ratio. Nearly 90 percent of the benefits are attributable to the transportation of wheat. It does not take much error in the Corps of Engineers' estimate to bring the benefit-cost ratio below parity. And as a matter of fact, we believe that the more realistic benefit-cost ratio in this case is 0.3 to 1.

Mr. HARSHA. May I interrupt you, sir. According to my worksheet here, it says "Damages prevented"—I assume that is flood waters—\$2,072,000; that transportation savings, which would be the transportation costs for wheat, of \$856,200. Other recreational benefits—they apparently show transportation savings of \$856,000, rather than 90 percent; am I wrong?

Mr. LONG. I do not believe you are, sir. I believe our figures jibe completely. I think 90 percent of the benefits for the navigation aspect of this project are attributable to the transportation of wheat.

Now there may be other benefits for the bank stabilization.

Mr. HARSHA. I misunderstood you.

Mr. LONG. I think they are the two aspects to be considered.

Mr. HARSHA. If you take all the navigation aspects out of transportation savings, you still have the same ratio.

Mr. LONG. I do not know—my impression would be, Congressman Harsha, that the benefit-to-cost ratio without the navigation would be below parity.

Mr. HARSHA. I am not sure what this "damages prevented" means; but I will get to that when we get to the corps. You go ahead.

Mr. BLATNIK. Would you summarize your statement? We understand your position pretty well, the inequity in comparing wheat. We understand your case quite well. Could you summarize it in the interest of time?

Mr. LONG. Yes. I am sorry to take as much time as I have.

We believe that the more real benefit-cost ratio is 0.3 to 1, not the 1.3 to 1 which the corps projects.

Under these circumstances, I do not believe that this committee ought to approve a project until the corps and the other experts in the administrative branch, such as the Department of Agriculture and the Secretary of the Army, have had a full opportunity to consider the real competition to barge traffic on the Missouri, which is not as they have analyzed it heretofore, rail rates. It is the whole of the various wheat markets and the wheat processing. These things must be looked into before the committee can have a reasonable basis for action. This is a project which involves \$55 million. I would suggest in these times it would not be well to approve a project of such magnitude unless and until a better benefit-cost ratio, based on facts and real data, should be found for the project. I do not see any difficulty in the delay of the project on the desk of the Chief of Engineers or the Secretary of the Army, the Bureau of the Budget—all of whom had not yet to my knowledge approved the project—because it is one which in its very complexity requires a great deal of study and a great deal of understanding by the people involved with it.

Thank you, Mr. Chairman, for the opportunity to make these views known on the committee.

Mr. BLATNIK. Mr. Long, would you list the railroads you are representing; would you give all of them by name so the record has a list of the railroads you represent.

Mr. LONG. I can list them very briefly: Great Northern, Northern Pacific, Burlington, Sioux Line, Rock Island, the Illinois Central, the Milwaukee, and the Chicago & Northwestern.

I think that is eight.

YAZOO RIVER, MISS.

Mr. BLATNIK. The next project is Yazoo River, Miss. Mr. James Tangerose, Association of American Railroads, Washington, D.C., is the next witness. He is also interested in the Red River Waterway, La., Tex., Ark., and Okla.

STATEMENT OF JAMES TANGEROSE, ASSOCIATION OF AMERICAN RAILROADS, WASHINGTON, D.C.

Mr. TANGEROSE. Mr. Chairman and members of the committee, my name is James Tangerose. I am director of waterway analysis of the Association of American Railroads, Washington, D.C. This statement is presented on behalf of the association.

Mr. HARSHA. Pull the mike closer to you.

Mr. TANGEROSE. This statement is presented on behalf of the Association and the railroads serving the area adjacent to the Yazoo River.

On February 10, 1964, the division engineer, lower Mississippi Valley division, announced the Vicksburg's report of December 1963 was

favorable for improving the Yazoo River for navigation. A brief review of the Vicksburg district's 1963 report showed the benefit-cost ratio for navigation, the principal purpose of the project, was only 0.85 to 1.

The Vicksburg district rewrote and resubmitted its report in 1966, and the Board of Engineers for Rivers and Harbors approved the project on February 17, 1967. We were not furnished a copy through an oversight on the part of the Vicksburg district engineer.

Following the release of the Board of Engineers for Rivers and Harbors report, we made a careful analysis of the Vicksburg district's revised report, including the report by the Board of Engineers for Rivers and Harbors.

On May 27, 1968, the Department of the Army provided us with a review made by the staff of OCE of our analysis of the Vicksburg district engineer's report.

I will briefly summarize the findings of our analysis, taking into account the review of the staff, OCE, and request that my complete statement be included in the record of this hearing.

We analyzed the principal commodities which the Vicksburg district estimated would have moved on the Yazoo River in 1966. Our analysis showed beyond any reasonable doubt that the Vicksburg district had overstated both traffic and transportation savings. The examples illustrate the type and magnitude of the errors made by the Vicksburg district.

Grains: The Vicksburg district engineer estimated 165,000 tons of soybeans and 13,000 tons of wheat as downbound traffic for the Yazoo River in 1966, or a total of 178,000 tons of grain.

Included in this estimate were 85,000 tons of soybeans which the Vicksburg district stated had moved by rail to gulf ports for export in 1966. We made a special tabulation of soybean shipments by rail from the area to be served by the Yazoo River and found 32,800 tons had moved by rail to gulf ports for export in 1966. The staff of OCE found upon further analysis that only 32,000 tons of soybeans had moved by rail to gulf ports in 1966, rather than 85,000 tons as estimated by the Vicksburg district engineer's report.

This is an error in excess of 100 percent on the part of the Vicksburg district.

In the interest of time, I will give one other example—dry fertilizers.

The Vicksburg district estimated 42,000 tons of dry fertilizers as prospective traffic from the Yazoo River in 1966. The staff of OCE, upon further investigation, found approximately 18,000 tons of dry fertilizers available for barge movement in 1966, as compared with 18,800 tons found by our analysis which was based on a tabulation of rail shipments during 1966.

Mr. BLATNIK. Could you summarize? We will go through this in detail.

Mr. TANGEROSE. Let me proceed to my recommendation.

When the Vicksburg district engineer's report is corrected to reflect overstatements of traffic, transportation savings, and recreation benefits, we compute the benefit-cost ratio to be approximately 0.7 to 1. One of the difficulties of computing a benefit-cost ratio for the subject project results from the failure of the staff of OCE to show the path

or growth of transportation savings over the project's economic life, 1975-2025. Our analysis dated August 18, 1967, computed the benefit-cost ratio of the subject project to be 0.3 to 1. Analysis of the comments by the staff of OCE resulted in increasing annual transportation savings by approximately \$1 million, of which about one-third results from a change in the growth curve used to discount transportation savings.

Since the Yazoo River navigation project clearly lacks economic justification, we recommend and urge this committee not to authorize it.

Mr. BLATNIK. Your full statement will appear in the record.
(The statement follows:)

STATEMENT OF JAMES G. TANGEROSE, DIRECTOR OF WATERWAY ANALYSIS,
ASSOCIATION OF AMERICAN RAILROADS

My name is James G. Tangerose. I am Director of Waterway Analysis of the Association of American Railroads, Washington, D.C. The Association represents railroads accounting for 98 percent of operating revenues by all line-haul railroads in the United States. This statement is presented on behalf of the Association and the railroads serving the area adjacent to the Yazoo River.

SUMMARY

Our review of the Vicksburg District Engineer's report, the Board of Engineers for Rivers and Harbors'¹ review report, and comments by the staff of Office, Chief of Engineers,² finds that the project is not economically justified, and at the best has a benefit-cost ratio of only 0.7 to 1. This is based on the use of an unrealistic interest rate of 3½ percent. The use of a more realistic interest rate reflecting the real cost of borrowing by the United States Treasury would make the benefit-cost ratio even less than shown herein. Based on the results of our analysis, we urge this Committee not authorize the subject navigation project.

INTRODUCTION

On February 10, 1964, the Division Engineer, Lower Mississippi Valley Division, announced the Vicksburg District's report of December 1963 was favorable for improving the Yazoo River for navigation, mouth to Greenwood, Mississippi. A brief review of the Vicksburg District's 1963 report showed the benefit-cost ratio for navigation the principal purpose of the project was only 0.85 to 1. We filed a statement in opposition to the navigation project with the BERH on January 8, 1965.

The Vicksburg District rewrote and resubmitted its report in 1966, and the BERH approved the project on February 17, 1967. We were not furnished a copy of the revised report, through an oversight by the Vicksburg District, until after the BERH has recommended approval of the project. Consequently, we were unable to file a statement in opposition to the project with the BERH.

Following the release of the BERH report, we made a careful analysis of the Vicksburg District's revised report, including the report by the BERH. Copies of our analysis were provided the OCE and interested government agencies in August 1967.

On May 27, 1968, the Department of the Army provided us with a review made by the staff of OCE of our analysis of the Vicksburg District Engineer's report. I will briefly summarize the findings of our analysis, taking into account the review of the staff, OCE, and request that my complete statement be included in the record of this hearing. I also request permission to file for the use of the Committee our analysis dated August 18, 1967, and the comments on our analysis by the staff of OCE dated May 6, 1968.

TRAFFIC AND TRANSPORTATION SAVINGS

We analyzed the principal commodities which the Vicksburg District estimated would have moved on the Yazoo River in 1966. Our analysis showed beyond any

¹ Hereafter referred to as BERH.

² Hereafter referred to as OCE.

reasonable doubt that the Vicksburg District had overstated both traffic and transportation savings. The following examples illustrate the type and magnitude of errors made by the Vicksburg District in its study of prospective barge traffic and transportation savings.

Grains. The Vicksburg District Engineer estimated 165,000 tons of soybeans and 13,000 tons of wheat as downbound traffic for the Yazoo River in 1966, or a total of 178,000 tons of grains.

a. Soybeans. Included in this estimate were 85,000 tons of soybeans which the Vicksburg District stated had moved by rail to Gulf ports for export in 1966. We made a special tabulation of soybean shipments by rail from the area to be served by the Yazoo River and found 32,800 tons had moved by rail to Gulf ports for export in 1966. The staff, OCE, found, upon further analysis, that only 32,000 tons of soybeans had moved by rail to Gulf ports in 1966 rather than 85,000 tons as estimated by the Vicksburg District Engineer's report.

The Vicksburg District estimated 40,000 tons of soybeans had moved downbound on the existing Yazoo River Navigation Project (9-foot navigation is available on the existing project for 46 percent of the time) in 1966. The staff, OCE, estimated this movement totaled 62,000 tons. Official waterborne commerce statistics published by the Corps of Engineers, *Waterborne Commerce of the United States*, Part 2, Calendar Year 1966, lists 55,300 tons of soybeans moving on the existing Yazoo River Navigation Project.

The Vicksburg District estimated about 29,000 tons had moved by truck to Greenville, Mississippi, and barge beyond to Gulf ports in 1966. The staff, OCE, increased this movement to 46,000 tons. In regard to this movement, the Vicksburg District and the staff of OCE both assumed that the shipper would be willing to pay a premium rate for such service. The comments by the staff of OCE stated this resulted from a shortage of rail cars in 1966 and the desire of elevator owners to avoid commingling of their beans with those of other buyers.

The current truck-barge rate through Greenville used by the Vicksburg District is \$4.26 per ton, which is the combination truck-barge rate from Yazoo City. The Bunge Corporation owns and operates an elevator at Yazoo City as well as at Greenville, Mississippi. Since the elevator operated by Bunge Corporation at Yazoo City is not served by rail, it is obvious that a rail car shortage, even if it had existed, would not have affected their soybean shipments from Yazoo City.

Bunge Corporation has several alternative routes for shipping soybeans from Yazoo City to the Gulf for export. These include barge on the existing project at a rate of \$3.53 per ton; all-truck to Baton Rouge at \$3.67 per ton; truck-barge through Vicksburg, Mississippi, at a rate of \$3.76 per ton; and finally truck-barge through Greenville, Mississippi, at a rate of \$4.26 per ton. One of the basic assumptions made by the Vicksburg District in its analysis of the Yazoo River is that shippers will act to minimize transportation costs. We do not argue with this assumption. However, it is equally applicable to existing conditions. Consequently, we find little support in the Vicksburg District Engineer's report and the comments of the staff of OCE for using the highest rate available as a basis for computing transportation savings. It is obviously not caused by a shortage of railroad cars. The commingling of beans can be avoided by shipping direct by truck or barge.

b. Wheat. The Vicksburg District estimated 13,000 tons of wheat as downbound traffic on the Yazoo River in 1966. Their report also showed no wheat had moved downbound on the existing navigation project during 1966, whereas official waterborne statistics as published by the Corps of Engineers show 11,100 tons of wheat moving on the Yazoo River in 1966. Hence, transportation savings should have been measured using the existing barge rate of \$3.53 and not the rail rate of \$4.10.

Dry fertilizers.—The Vicksburg District estimated 42,000 tons of dry fertilizers as prospective traffic for the Yazoo River in 1966. The staff of OCE, upon further investigation, found approximately 18,000 tons of dry fertilizers available for barge movement in 1966, as compared with 18,800 tons found by our analysis which was based on a tabulation of rail shipments during 1966. Thus, the Vicksburg District overstated estimated 1966 barge traffic of dry fertilizers by approximately 55 percent.

Anhydrous ammonia.—The Vicksburg District estimated 131,300 tons of anhydrous ammonia as downbound barge traffic for the Yazoo River in 1966. The tabulation or outbound rail shipments revealed rail movements to 330 destinations in 18 states during 1966. Total rail shipments were in excess of 130,000 tons, although shipments to points that could receive anhydrous ammonia by barge to-

talled only 64,000 tons. By far the principal movement was to an affiliate plant at Pascagoula, Mississippi. The staff of OCE, upon further analysis, found that a little less than 98,000 tons of anhydrous ammonia moved from the fertilizer plant at Yazoo City in 1966 and assumed such traffic was available for barge.

Since receiving the comments from the staff of OCE, we have made further study of the downbound anhydrous ammonia traffic. As noted above, shipments in 1966 went to 330 destinations. Many of these shipments were in small annual volumes and to off-river and off-waterway destinations. Although we did not analyze 1967 shipments, total rail cars shipped from Yazoo City in 1967 were 3,460 as compared with 3,244 cars in 1966.

Oyster shells.—Oyster shells are currently moving by barge from Gulf Coast deposits to a cement plant at Redwood, Mississippi, approximately 17 miles above the mouth of the Yazoo River. The average barge loading is about 2,200 tons at a draft of 8 feet and the movement on the Yazoo River for a 2-barge tow requires 3.4 hours.

The proposed plan for improving the Yazoo River calls for a lock at approximately mile 4. This lock will permit a single lockage of 2-barge tows of the size currently in use. Consequently, we can find no basis for crediting savings of 25 cents per ton to the movement of oyster shells involving a haul of 17 miles.

Grain mill products.—The Vicksburg District estimated 1966 downbound traffic of grain mill products (soybean and cottonseed meal) to be 54,900 tons. The District Engineer also stated that the traffic had moved by rail to the Gulf ports in 1966. The staff, OCE, state that 47,000 tons of soybean meal moved by both rail and truck to Gulf ports and various destinations in the southeast and an additional 28,000 tons of cottonseed meal moved by rail and truck to points in the States of Mississippi and Louisiana.

For the purposes of our analysis, we tabulated shipments of soybean meal from Yazoo River shipping points to all destinations. This revealed outbound shipments of approximately 14,000 tons. Of this amount, approximately 9,200 tons of soybean meal moved to Gulf destinations, the remainder going to points in Mississippi and Tennessee.

In our previous analysis, we had not considered cottonseed meal as prospective downbound barge traffic because it normally does not move in the export trade. We made further analysis of cottonseed meal from Yazoo River shipping points which showed a movement of approximately 11,000 tons in 1966. This tabulation showed that principal movements were to Birmingham, Alabama; Hattiesburg, Mississippi; and Jackson, Mississippi. The tabulation also showed that only 400 tons moved from this area by rail to Gulf ports. None of the rail movements of cottonseed meal would show transportation savings, principally because of the direction of movement and the small annual quantities to barge receiving points. It should be noted that the comments of the OCE were not responsive to our findings since they showed shipments of soybean and cottonseed meal by both rail and truck, whereas the Vicksburg District based its estimate of barge movements of these commodities on 1966 shipments by rail to Gulf ports.

LPG (liquefied petroleum gas).—The Vicksburg District estimated 42,300 tons of LPG as upbound barge traffic in 1966, with transportation savings of \$43,600, or \$1.03 per ton. The staff, OCE, state they verified the movement of 42,300 tons. Both the Vicksburg District and the staff, OCE, state that the LPG moved by rail in 1966.

In our review of the Vicksburg District's report, we made a special tabulation of rail shipments of butane and propane, which account for 80 percent of LPG production, and found approximately 11,000 tons had moved by rail to Greenwood, Mississippi, in 1966.

Upon receipt of the comments of the staff, OCE, we made a further analysis of LPG movements by rail. This revealed that we had failed to tabulate rail movements of miscellaneous liquefied petroleum gas. When this omission was discovered, we tabulated these movements which showed 23,400 tons had moved to Greenwood by rail in 1966. Consequently, total rail movements of LPG to Greenwood during 1966 were approximately 34,000 tons, rather than the 11,000 tons we showed in our analysis which, as noted above, was based on rail shipments of butane and propane. This is approximately 8,000 tons less than that estimated by the Vicksburg District and the staff of the OCE.

Rail shipments of LPG to Greenwood, Mississippi, originated at 48 stations and totaled 490 cars of approximately 70 tons per carload. The principal shipping points are located at inland cities in Louisiana, Texas, and Oklahoma. Based on our revised analysis, we find 18,400 tons of LPG traffic to have been available for barge in 1966.

Linerboard paper.—The Vicksburg District's estimated 30,000 tons of linerboard paper would move downbound from the new paper mill at Redwood, Mississippi, to the Gulf for export commencing in 1975. Estimated transportation savings were computed by the Vicksburg District to be \$25,500, or 85 cents per ton. At the time the Vicksburg District made their study, the railroads had not published specific carload export rates from the plant at Redwood, Mississippi, since it was not in operation. Since then, the railroads have published a set of carload export rates ranging from \$4.30 per ton to Baton Rouge to \$4.70 per ton to New Orleans.

The staff, OCE, found that the transportation savings computed by the Vicksburg District and the AAR would have been practically the same had we used New Orleans rather than Baton Rouge as the port of export. In the absence of the waterway, this implies that the producer at Redwood, Mississippi, would be willing to pay 40 cents per ton premium to have his product exported via New Orleans rather than Baton Rouge. This we cannot accept since one of the basic assumptions made by the Vicksburg District is that shippers will try to minimize transportation costs. Moreover, if savings of 40 cents per ton will not divert this traffic to Baton Rouge, there is no assurance that savings of 85 cents per ton will divert it from rail to barge.

Logs.—The Vicksburg District estimated 25,000 tons of hardwood logs for use as pulpwood would commence using the Yazoo River in 1975. This traffic would be for the new paper mill at Redwood, Mississippi. Our analysis did not question the amount of the traffic but the savings that the Vicksburg District had computed for this movement of 94 cents per ton.

This mill is currently receiving pulpwood by rail on intrastate rates (see IC 510-C, ICC 8452). Based on published rail rates, we concluded that no savings would accrue to this traffic. The staff, OCE, found that savings on this traffic by barge would be adequate to divert the movement from rail to barge. However, they obviously have used rates on pulpwood which are in error. For example, they state that the rate from points in northwest Mississippi would be \$1.43 per ton, whereas the correct published rail rate is 85 cents per ton, as shown in our analysis. Since this rate is less than the savings computed by the Vicksburg District, we again find no savings would accrue to this traffic.

Average annual equivalent transportation savings.—Based on Table B-8 and Plate B-2 of Appendix B of the Vicksburg District Engineer's report, our analysis found that average annual equivalent transportation savings had been overstated.

Comments by the staff of OCE state that Chart B-2, which the Vicksburg District used to demonstrate the growth of transportation savings, is incorrect. Based on undisclosed information, the staff of OCE finds that the Vicksburg District Engineer assumes that the growth of traffic will be substantially greater in the early years of the project's life rather than in the last 10 to 20 years of the project's economic life as shown in the report. This contradicts completely the report by the Vicksburg District Engineer.

Comments by the staff of OCE do not respond to our analysis and are inconclusive since they fail to show the path or growth of benefits for discounting purposes.

Subsidy to barge operators and shippers.—The proposed Yazoo River Navigation Project will be constructed, operated, and maintained by the nation's general taxpayers. Based on traffic estimated to move on the proposed project by the Vicksburg District, barge operators will be subsidized \$2.20 per ton in 1975, the first year of project operation. The average subsidy over the economic life of the project is 87 cents per ton. It would be uneconomical to impose the costs of constructing and maintaining the project on the general taxpayers. It would also discriminate against competing modes of transportation.

We cite as a constructive step President Johnson's request for a modest user charge of 2 cents per gallon on fuel oil used by towboats on our inland waterways. The Administration also proposed that this charge be increased 2 cents per year until it reaches 10 cents per gallon in 1970.

RECREATION BENEFITS

The Yazoo River Navigation Project proposes two separate recreation facilities. In order to provide water for the navigation project, it is proposed to increase Sardis Reservoir and develop further its recreation potential. The second recreational area would be created as a result of construction of a navigation dam at mile 4 on the Yazoo River.

The 1963 report of the Vicksburg District found that the recreational use of Sardis Reservoir was restricted because of the lack of adequate dust-free access roads. The 1966 report apparently found that adequate roads had been provided but still found that the use of Sardis Reservoir was restricted because it was "an open body of water without significant embayments. Consequently, much of the time water is too rough for pleasure boating, skiing or fishing."

We noted this inconsistency between the 1963 and 1966 reports, and the staff of OCE stated that the Vicksburg District should have shown how many days during the recreation season the waters in Sardis Reservoir were too rough to permit boating, skiing, and fishing.

Our analysis also noted the existence of three other Corps of Engineers' reservoirs in the headwaters of the Yazoo River—Enid, Grenada, and Arkabutla—as well as Pickwick Lake on the Tennessee River. Because of the availability of the many alternative recreational areas—Federal, state, and county—we found that the Vicksburg District's report had not properly evaluated the effect of the alternative recreational areas on Sardis Reservoir's recreation potential. We also found that the personal income in this area could not support a unit value of \$1.25 per day, which, according to Supplement No. 1 to Senate Document No. 97, should reflect what users would be willing to pay for the opportunity to recreate if such fees were charged. Our analysis also noted ethnic characteristics of the population would influence the demand for recreation.

Concerning the navigation pool to be created at mile approximately 4 on the Yazoo River, our analysis noted that the report of the Vicksburg District stated that there are no reservoir-type recreation opportunities in or near the lower end of the Yazoo River. This is not so because of the availability of Ross Barnett Reservoir near Jackson, Mississippi. In fact, it is quite obvious that the recreational opportunities at Barnett Reservoir exceed those that can be expected from the navigation pool on the lower Yazoo River. Taking into account the availability of alternative sites, the lower level of personal income, and ethnic characteristics of the population, our analysis computed recreation benefits to be approximately \$200,000 annually. OCE in their comments endorse the recreation benefits computed by the Vicksburg District Engineer. They assert the use of \$1.25 per recreation day is supported by Supplement No. 1 to Senate Document No. 97. However, they made no attempt to determine whether users would be willing to pay \$1.25 per recreation day as required by the aforementioned document.

We also found that the Vicksburg District had overstated fish and wildlife benefits by \$24,400, with which the staff of OCE concurred.

INTEREST RATES

The Vicksburg District used an interest rate of 3½ percent to compute project costs and benefits. Our analysis found that this interest rate is much too low and results in understating project costs and overstating project benefits. Since submission of the report, the interest rate used to evaluate water resource projects has been increased to 3½ percent. The current yield on key long-term Treasury bonds is approximately 5½ percent. The opportunity cost of capital is even higher. The use of a more realistic interest rate, for example, 5½ percent, makes the project even less justified than our analysis found it to be.

It is of significance to note that President Johnson, in his Budget Message, stated the interest rate being used by the Federal agencies in formulating and evaluating proposed water resource projects is significantly lower than the cost of borrowing by the U.S. Treasury. President Johnson also stated that the Water Resources Council is developing a more appropriate interest rate for use in evaluating water resource projects. During the first week of May 1968, the U.S. Treasury borrowed money at an interest rate of 6 percent. Obviously if the subject project were analyzed using a realistic interest rate, the benefit-cost ratio would be substantially reduced.

Comments by the staff of OCE state the interest rate prescribed by the formula in Senate Document No. 97 was used. No attempt is made by the staff of OCE to support the level of the interest rate used to evaluate the project.

AREA REDEVELOPMENT BENEFITS

The Association of American Railroads supports the objectives of alleviating poverty wherever it exists. The area in which the proposed project is located is largely rural and is characterized by substantial rural as opposed to urban poverty.

We have had the opportunity to study a report by the President's National Advisory Commission on Rural Poverty entitled "The People Left Behind," dated September 1967. This very commendable report found that available evidence indicates that little, if any, direct employment of the unskilled rural poor results from the construction of natural resource projects (page 134). It also noted that the construction of such projects creates false hopes concerning their contribution to increasing employment and incomes of the rural poor.

It is also noteworthy that the Economic Development Administration, U.S. Department of Commerce, does not include construction jobs created by their projects as a means of justifying such projects (Economic Development, Vol. 4, No. 9, September 1967, page 2). The Association of American Railroads finds no support for a procedure that includes part of the project costs as a means of justifying authorization and construction of the project.

It is also of significance to note that the staff of OCE estimate the area under study will experience a growth in manufacturing approximately one-fourth higher than the national growth. This is not characteristic of depressed areas. One of the principal characteristics of depressed areas is a declining population as people move out to seek employment. Surprisingly, the Vicksburg District estimates that the population of the 14-county tributary area, all but one being ARA, increased by 6.6 percent between 1960 and 1965.

RECOMMENDATION

When the Vicksburg District Engineer's report is corrected to reflect overstatements of traffic, transportation savings, and recreation benefits, we compute the benefit-cost ratio to be approximately 0.7 to 1. One of the difficulties of computing a benefit-cost ratio for the subject project results from the failure of the staff of OCE to show the path or growth of transportation savings over the project's economic life, 1975-2025. Our analysis dated August 18, 1967, computed the benefit-cost ratio of the subject project to be 0.3 to 1. Analysis of the comments by the staff of OCE resulted in increasing annual transportation savings by approximately one million dollars, of which about one-third results from a change in the growth curve used to discount transportation savings.

Since the Yazoo River Navigation Project clearly lacks economic justification, we recommend and urge this Committee not to authorize it.

Mr. BLATNIK. I call on my colleague, Representative Thomas G. Abernethy, of Mississippi.

STATEMENT OF HON. THOMAS G. ABERNETHY, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF MISSISSIPPI

Mr. ABERNETHY. Mr. Chairman and members of the subcommittee, I am here to urge that you include in the river and harbor and flood control bill the navigation improvements on the Yazoo River, Miss., as recommended by the Chief of Engineers and concurred in by the Secretary of the Army and the Bureau of the Budget.

My review of the report of the Chief of Engineers leads me to the conclusion that the construction of this project will be a truly fine investment not only for the immediate region to be served, but for the entire Nation.

The estimates of the Corps of Engineers appear to be unusually conservative, yet result in a benefit-to-cost ratio of 1.6 to 1. Prospective shippers among my constituents are certain that freight tonnages, particularly in grain and fertilizers, will be far greater than estimated in the report.

Fourteen or more counties, including some of the most productive agricultural counties in the Nation, will be served by the project. While now an area principally relying on agriculture, it is experiencing rapid industrial growth which certainly will be accelerated by this project. Even in its present hazardous state of navigation, the Yazoo River is

carrying more than 150,000 tons of commerce per year, including more than 40,000 tons of soybeans. As this committee well knows, my legislative career has been largely devoted to the interests of the farmer and for that reason this project particularly appeals to me, since the freight savings, especially on the grain crops, are passed on to the farmer in the prices he receives. This means a direct and tangible benefit to the individual farmer who will be served by the waterway.

The city of Greenwood, in my district, will be the terminus for the project. Its citizens are particularly interested because of the prospects a navigable Yazoo River furnishes for its future growth. Greenwood already enjoys outstanding transportation facilities—rail, highway, and air. When this project is completed, no community in the country will enjoy finer advantages for industrial growth.

There are other benefits from the project, particularly in recreational facilities, which make it one of the most attractive public works improvements it has been my pleasure to support.

I urge your most favorable consideration and your recommendation for its authorization.

Mr. BLATNIK. Thank you, Mr. Abernethy.

Next, Representative G. V. "Sonny" Montgomery, from Mississippi.

STATEMENT OF HON. G. V. "SONNY" MONTGOMERY, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF MISSISSIPPI

Mr. MONTGOMERY. Mr. Chairman and members of the committee, I am happy to submit this statement on behalf of the Yazoo River navigation project in Mississippi.

As you know, it would provide a year-round 9-foot navigation channel on the Yazoo River from Greenwood to Vicksburg, Miss. This would be accomplished by constructing a navigation lock and a tainter-gated dam near the mouth of the river at Vicksburg.

It would also require channel realignment at several locations, dredging, training dikes, channel clearing, and one bridge alteration to provide adequate clearance for navigation. Recreational facilities are also proposed incidental to the foregoing improvements.

The Board of Engineers for Rivers and Harbors has concurred in the plans for this project and it has recommended that the existing navigation project on the Yazoo River from its mouth to Greenwood, Miss., be modified to provide for the improvement presently being considered by this committee.

It is estimated that the first cost of the Yazoo River navigation project would be \$53 million, providing a benefit-cost ratio of 1.6 to 1. The Federal cost would be \$51,240,000 for construction and lands in the reservoir, exclusive of aids to navigation; \$1,760,000 would be the non-Federal cost of lands, easements, and rights-of-way along the Yazoo River, one bridge alteration, and for repayment under the provisions of the Federal Water Project Recreation Act.

The estimated population in 1965 of the 14 counties considered commercially tributary to the proposed improvement was 362,000. Farming and cattle raising are now the principal occupations in this area. Although industrial growth is proceeding rapidly, the completion of this project would speed this progress and greatly improve the economic welfare of the area.

Mr. Chairman, I would like to request that statements of Mr. Sam Coker, of Yazoo City, Miss.; Mr. James A. Pierce, traffic manager, Mississippi Chemical Corp.; and Mr. W. S. Stuckey, manager, Cooperative Elevator Co., Greenwood, Miss., be included in the record at this point.

Mr. Chairman, I strongly urge the committee to authorize the Yazoo River navigation project as part of the Mississippi River and tributaries project.

(Statements referred to follow:)

STATEMENT OF SAM H. COKER

My name is Sam H. Coker, I live on a cotton farm eight miles north west of Yazoo City, Mississippi. I own and operate a farm implement store in Yazoo City, Mississippi. I am president of the Yazoo Mississippi Delta Levee Board, Domiciled in Clarksdale, Mississippi, which district includes ten counties in the Yazoo Mississippi Delta. I am, also, Chairman of the Yazoo County Port Commission, and I come before you to speak in behalf of the Yazoo River Navigation Project. The original improvement on the Yazoo River to provide a channel with an average width of about 200 feet and a minimum depth of 4 feet was completed in 1888 with a cost of approximately \$360,000.00. The Project is maintained as required by removal of snags, hanging trees and other obstructions. It extends from the mouth of the Yazoo River at Vicksburg to the vicinity of Greenwood. There has been transportation on the Yazoo River since before the Civil War reaching a low ebb at the advent of the new and deeper draft barges that are presently used in water transportation. The proposed waterway would serve an area with a population of approximately 360,000 whose economy is largely agriculture, even though there are some agriculture related industries together with paper and petroleum industries. The river at present carries from 100,000 to slightly in excess of 200,000 tons per year depending on the amount of water available.

In 1961 about a dozen men from the four principle counties through which the waterway would flow organized the Yazoo River Development Committee. This Committee engaged Professor Don Doty of Mississippi State University to make a complete survey of the area for proposed navigation benefits. This study was financed by local interest and submitted to the Corps of Engineers at their Hearings. The above mentioned study indicates that there would have been 611,000 tons moved on the Yazoo River if barge transportation had been available in the year 1962. It, also, indicates that by the year 2012 estimated tonnage would be 1,875,000 tons handled at a savings of \$1,500,000.00 per year. The latest study by the Corps of Engineers would indicate an increase of 991,000 tons by 1975 and 5½ million tons by the year 2025. Cotton has long been the number one crop grown in the area; however, acreage control on cotton during recent years and the adaptability of Delta soil to soybeans and small grains have resulted in significant increases in the production of these commodities. The principle benefit to the project is transportation savings which are approximately 3½ million dollars annually. In 1963 Yazoo County created a 5 man Port Commission to direct the development of port facilities in the county. With the assistance of the state of Mississippi the county at this time owns a modern well equipped port with facilities to handle both dry and liquid material. Among the many items that would move on the waterway some of the principle ones for outbound traffic would be soybeans, grain, petroleum products and fertilizer. Among the inbound traffic would be oyster shells, fertilizer, coal, and agricultural lime. In this connection I would like to call attention to the fact that from 1960 to 1966 there was over 290,000 acres of land cleared in the area and brought into production.

This figure has been increased from 1966 to date by approximately 33,000 acres. In Yazoo County alone, which is the largest county in the state of Mississippi by area, there were over 42,000 acres cleared in this five year period, and at least 6,000 acres brought in in the last two years, and virtually all of this new land has gone into soybean production. The best market for these soybeans is the export market at the ports of New Orleans and Mobile, which will be shown by another witness. The inbound tonnage would be tremendously increased by the anticipated use of the large volume of coal with which to operate International Paper Company plant at Redwood, Mississippi and the Greenwood Municipal

Power Plant which letters attached from the management of both firms will verify. Extraordinary Session of 1966 the Mississippi Legislature passed House Bill #10 which authorized the creation of the Lower Yazoo River Basin District. This District has been organized and consists of Warren, Yazoo, Humphreys and Leflore counties, each county having two directors. The District has taxing and bonding authority which would be ample to furnish all of the necessary local participation required on this project, and funds will start coming in in February 1969. We urge your approval of this project and appreciate very much the time that you have given us to discuss it with you. Thank you.

STATEMENT OF JAMES A. PIERCE, TRAFFIC MANAGER, MISSISSIPPI CHEMICAL CORPORATION, COASTAL CHEMICAL CORPORATION, YAZOO CITY, MISS.

Our primary support in the Yazoo River Navigation Project pertains to the interest of the fertilizer industry. American farmers today purchase over 30 million tons a year of commercial fertilizers composed of chemical ingredients. They spend about \$2 billion each year for these fertilizer chemicals—and about one-fifth of all the crops American farmers raise can be directly attributed to the use of fertilizers.

In the past two decades, we have experienced a revolution in the farming industry. During this period, a decreasing number of U. S. farmers have more than tripled the farming output. Along with improvements in farming methods and chemical fertilizers, transportation has played a vital role to the progress of this most important industry.

The fertilizer industry, in its use of transportation, has found that the waterways system is mandatory to meet its need. Not only is the water system needed in receiving raw materials for production, the increase in bulk deliveries, both liquid and dry, has demanded more water transportation. To give an example, 38 new anhydrous ammonia plants have been built along the inland waterways during the past 10 years.

Now, to be more specific, one of our company's continuing objectives is to take greater advantage of low-cost water transportation in establishing new terminals at strategic locations on the inland waterway system for the effective and timely distribution of our products at the lowest possible cost. In line with this objective, we wish to outline the make-up of the companies which we represent and the importance of our support of the development of the Yazoo River.

Mississippi Chemical Corporation and its subsidiary, Coastal Chemical Corporation were formed as, and continues to operate as, Cooperatives in order to serve the farmers of the South and South Central United States with chemical fertilizers, both nitrogeous and mixed, at the lowest possible cost. The nitrogen plants are located at Yazoo City, Mississippi with an output of 1,000 tons/day of anhydrous ammonia, 900 tons/day ammonium nitrate, 275 tons/day urea and 750 tons/day nitrogen solutions. Adequate river transportation is necessary in order for our companies to remain competitive and operate in the best interest of the approximately 22,000 farmer stockholders. Lower water transportation costs results in direct benefits to these farmer stockholders in the South and South Central United States as all company profits are accrued to these stockholders—in cash and/or additional stock. To date, Mississippi Chemical and Coastal Chemical have returned over \$127,000,000.00 in cash to its farmer stockholders. Thus, providing these farmers the opportunity to produce a higher food yield at the lowest possible cost.

At the present, our companies operate a one million dollar river port facility at Yazoo City on the Yazoo River consisting of 28,000 tons of dry bulk storage and 10,000 tons of bag storage along with storage in excess of 4,000 tons of nitrogen solutions and anhydrous ammonia. We now move approximately 35,000 tons of dry bulk mixed fertilizers into this port facility at Yazoo City of which a majority of the tonnage is shipped from Pascagoula, Mississippi. With proper water availability on the Yazoo River, 100% of this tonnage could be moved into this port by the waterways system.

In 1967, Coastal Chemical established 20,000 tons of additional storage for nitrogen solutions at Eufaula, Alabama and President's Island, Memphis, Tennessee, which coupled with 10,000 tons of storage at Decatur, Alabama, brought our on-water storage for nitrogen solutions to a 30,000 ton level. Annual thru-put of these facilities will be approximately 45,000 tons. This product is manufac-

tured at Yazoo City and due to an increase in water availability on the Yazoo River during the months of October, November and December, 1967, 13,580 tons of nitrogen solutions were shipped by barge to these storage facilities at a considerable savings; however, because of the limited water level, the majority tonnage of this product had to be shipped by rail at a higher transportation cost.

Mississippi Chemical Corporation is also manufacturing products for export. We are presently shipping 5,000 tons of urea by rail to the Port of Pascagoula. It is most important in the export market that our prices be competitive as possible. Lower freight costs means the lower our overall prices will be, thus enhancing our chances to better compete in the world market. There is a limit to the amount of such business we can expect under present conditions. We do not know what the future holds, but it is likely that barge movements to ships on the Gulf Coast would certainly improve our potential in this market.

In addition, we have just completed a 25,000 ton dry bulk storage facility at Liberty, Texas, on the Trinity River and feel that we have a potential to move a substantial tonnage of urea from Yazoo City to this location. Adequate water availability for this movement on the Yazoo River would further enhance our ability to lower the distribution costs.

Plans are now being made to establish bulk storage for dry materials, which will include urea, for the Northeast Arkansas and North Alabama areas. These facilities will be established on water.

Two years ago, MCC and CCC came on stream with the first 1,000 ton/day anhydrous ammonia plant and the first 30,000 ton refrigerated storage facility. This alone is an indication that we are among the leaders in the fertilizer industry. Moreover, we recently doubled our nitrogen solutions and urea productions. All of this indicates more transportation utilization for the Yazoo River.

More specific, this past year we shipped approximately 75,000 tons of anhydrous ammonia to points which could be served by water transportation. Had the Yazoo River been available for this distribution, considerable transportation savings would have been experienced.

In planning further expansion programs in the Yazoo City area, we are limited in the types of production we can consider due to the limitations imposed by the lack of proper water transportation for raw materials. Recently, a new fertilizer processing operation was approved for another of our locations primarily because of the lack of a year-round navigable channel which is necessary to move in the raw materials. We are also in the process of building a 1,200 ton/day urea plant and a 1,000 ton/day anhydrous ammonia plant at still another location which can be adequately served by water. The ideal situation is, of course, to build production facilities near the center of the distribution area, but if the lack of adequate water availability dictates building elsewhere, transportation costs are not minimized as they should be.

With the rise in costs of raw materials, production and labor, transportation is playing an ever increasing role in an attempt to reduce overall costs in the manufacturing of fertilizers. It is imperative for us to continue to furnish the farmers with their fertilizer needs at the lowest cost possible and our future operations are highly dependent upon water availability. The outcome of approval for much needed proper water facilities on the Yazoo River is of utmost importance to our companies to meet this demand.

STATEMENT OF W. S. STUCKEY, MANAGER, COOPERATIVE ELEVATOR CO.,
GREENWOOD, MISS.

I am W. S. Stuckey, Manager of the Cooperative Elevator Company of Greenwood, Mississippi, a department of Farmers Supply Cooperative AAL, Greenwood, Mississippi. I represent, and have for the past twelve years, the interests of 350 plantation and farm owners in Leflore and adjoining counties of Mississippi, specifically in the field of grain and soybean marketing and storage.

It is well known and understood by economists that the agriculture strength and expansion of an area must have roots to three major qualifications. First, fertile land; second, efficient and educated producers; third, and the most important, the efficient market systems to give him the correct value for his production. This market value is at present, and has been for some time, the deep concern of this area.

Leflore and adjoining counties have had the most efficient mode of transportation to the market place lying idle and undeveloped for years. Since transportation costs are a large portion of the ultimate price of a bushel of grain or soybeans, the most efficient avenue must be used to create the correct market value.

Continued rail freight increases over the years, plus the shortage and inadequate disposition of rail equipment, has directly depressed the value of the areas' products. The following facts will point out the exact loss to these particular people and area during the production year 1967:

Cooperative Elevator Company of Greenwood

Capacity, bushels.....	2,000,000
Purchases and Sales, bushels.....	3,685,000
Soybeans, bushels.....	2,500,200
Oats, bushels.....	380,000
Grain, Sorghum, bushels.....	155,000
Wheat, bushels.....	565,000
Corn, bushels imported.....	85,000
Soybean Rates for export (Published) :	
Rail, per ton or 19.50¢ per cwt.....	\$3. 90
Greenville Barge, per ton or 7.95¢ per cwt.....	1. 59
(Equivalent to Greenwood), per ton or 11.55¢ per cwt.....	2. 31
Converts to 6.93¢ per bushel.	
2,500,000 bushels multiplied by 6.93¢, Loss to Producers.....	<u>\$173,250. 00</u>
Wheat Rates for export (Published) :	
Rail, per ton or 21.50¢ per cwt.....	\$4. 30
Greenville Barge, per ton or 7.95¢ per cwt.....	1. 59
(Equivalent to Greenwood), per ton or 13.55¢ per cwt.....	2. 71
Converts to 8.13¢ per bushel.	
565,000 bushels multiplied by 8.13¢, Loss to Producers.....	<u>\$45,934. 50</u>

Now we are again faced with increased freight July 1st. This cannot continue for the benefit of future agriculture expansion.

Total 9-foot channel navigation on the Yazoo River for a definite high percentage of the year, will give this fertile area room to expand and prosper. Interest in all crops will inevitably gain favor. The Cooperative Elevator Company of Greenwood will construct permanent dock and loading facilities at a cost of \$125,000, at the first sign of actual work and expenditures on this project.

The City of Greenwood and Leflore County are in the process of acquiring land for an industrial port at this time. The expansion of industry as well as agriculture is a prime target for the Greenwood Leflore Industrial Board.

In closing, I would like to point out that these facts are limited to only a small portion of this project. The overall economic value to be gained from a navigable river from Greenwood to Vicksburg is substantially greater in the Agricultural field.

STATEMENT OF HON. CHARLES GRIFFIN

Mr. Chairman, I am grateful for the opportunity to present my views on the Yazoo River Navigation Project.

Those of us who have a particular concern about the growth of the area which will be affected by this project are extremely enthusiastic about its potential. In fact, there is a consensus that completion of the project can open the door to unprecedented development; thereby benefiting hundreds of thousands of people, both directly and indirectly.

The 14 counties considered commercially tributary to Yazoo River navigation improvement traditionally have been agriculturally oriented due to the existence of rich fertile soil and a favorable climate. There has been a marked acceleration in recent years, however, in industrial development in such diversified fields as the processing of agriculture and timber products, manufacture of industrial chemicals and fertilizers and production of petroleum products.

Despite these encouraging trends, each of the counties through which the river flows, with the exception of Warren County, has been classified as a redevelopment area by the Economic Development Administration. I am convinced that the proposed waterway improvement would be a key to attaining the maximum development of the area's human and natural resources.

A recent decision of the Illinois Central Railroad is an excellent illustration of the stimulating effect which the navigation project will have on the area. In anticipation of the river being made navigable on a year-round basis, the railroad has constructed the longest stretch of rail line to be built in Mississippi in the past century, paralleling the river in Warren and Yazoo Counties. Numerous industrial spokesmen, likewise, have confided to local leaders in business and commerce that their decision on locating new facilities in the immediate area will be based on assurances that the proposed improvements will be made.

Mr. Chairman, I recognize the indicated cost of \$53 million requires that careful, judicious consideration be given the project prior to authorization. However, this would appear to be a sound investment in view of the 1.6 cost benefit ratio. I believe, too, that this ratio will be executed when the overall potential is realized.

RED RIVER NAVIGATION PROJECT—LOUISIANA, ARKANSAS, TEXAS, AND
OKLAHOMA

Mr. TANGEROSE. If it suits the chairman, I will also give my statement on the Red River.

Mr. BLATNIK. Yes, will you please. Your arguments in the Red River statement would be essentially the same, the transportation benefits and perhaps other benefits, is this true?

Mr. TANGEROSE. This is true in part. Except in this particular case, the Board of Engineers for Rivers and Harbors, when it approved the project, changed Vicksburg District Engineer's report so substantially that there is really no relationship today between the New Orleans District Engineer's report. And actually our analysis of the Red River is principally concerned with the Red River navigation project only as far as Shreveport, since the Board of Engineers of Rivers and Harbors recommended the increment from Shreveport to Lone Star to be restudied prior to construction.

Our study also showed the 95 percent or more of traffic between Shreveport and Lone Star was for the benefit of Lone Star Steel Co. Our analysis also showed the increment between Shreveport and Lone Star had B-C ratio of less than one, excluding so-called area redevelopment benefits.

There is one point that is common to both reports, which I have not talked about. If you have time, if you do not, I could summarize.

Mr. BLATNIK. Could you conclude your testimony, if I may interrupt. We have our senior colleague, outstanding colleague, dear friend and member of the Rules Committee, which is in session, and he was only able to get away, Mr. Madden from Indiana.

Mr. TANGEROSE. I can summarize it.

Mr. BLATNIK. And the testimony will appear in its entirety at this point, the statement will appear in its entirety at this point.

(The statement referred to follows:)

STATEMENT OF JAMES G. TANGEROSE, DIRECTOR OF WATERWAY ANALYSIS,
ASSOCIATION OF AMERICAN RAILROADS

My name is James G. Tangerose. I am Director of Waterway Analysis of the Association of American Railroads, Washington, D.C. The Association of American Railroads includes virtually all Class I railroads of the United States in its membership. This statement is presented on behalf of the Association and the AAR Overton Canal-Red River Waterway Project Committee. This com-

mittee includes representatives of all Class I railroads serving the area adjacent to the proposed Red River Navigation Project. I will briefly summarize my statement and request that the complete statement and supporting studies be included in the record of this hearing.

INTRODUCTION

The New Orleans District completed an interim report of the Red River below Denison Dam in March 1966. The report recommended, among other things, a navigation project from the mouth of the Red River to Shreveport, Louisiana, thence via Twelve Mile and Cypress Bayous to Lone Star, Texas. The navigation project recommended by the New Orleans District was 9 feet deep, 150 feet wide, with nine locks, all 84 feet wide and 600 feet long, and about 294 miles in length.

The railroads serving the area employed R. L. Banks and Associates, Inc., Washington, D.C., to review and analyze the navigation features of the New Orleans District's report. This firm computed the benefit-cost ratio to be 0.6 to 1 for the combined navigation-bank stabilization project to Lone Star, Texas. They also found that the benefit-cost ratio would have been even less if all commodity movements had been analyzed. Copies of the analysis made by R. L. Banks and Associates, Inc., were furnished the Chairman of this Committee on April 25, 1968.

The Board of Engineers for Rivers and Harbors recommended approval of the Interim Report on the Red River in October 1966. It qualified its recommendation by finding that the navigation project from Shreveport, Louisiana, to Lone Star, Texas, should not be initiated until it had been restudied. The Board also made a number of significant changes to the New Orleans District's report. For example, it recommended increasing the channel width from 150 to 200 feet.

Because of the significant changes made by the Board of Engineers for Rivers and Harbors to the New Orleans District's report, the AAR Overton Canal-Red River Waterway Project Committee made an extensive review of the Board's report. The analysis by the railroad committee was confined to the navigation project from the mouth of the Red River to Shreveport. It noted, however, that the extension of the project from Shreveport to Lone Star would be principally for the purpose of benefiting Lone Star Steel Company. Copies of the analysis made by the AAR Overton Canal-Red River Waterway Project Committee, dated April 15, 1968, were furnished the Chairman of this Committee on April 25, 1968. I request this analysis be made a part of the record of this hearing.

PRINCIPAL FINDINGS OF RAILROAD COMMITTEE'S ANALYSIS

The principal findings of the AAR Overton Canal-Red River Waterway Project Committee of the report by the Board of Engineers for Rivers and Harbors are summarized as follows:

Benefit-cost ratio.—The benefit-cost ratio for a navigation-recreation project was computed to be 0.7 to 1, and for a navigation-only project, 0.6 to 1, mouth of Red River to Shreveport, Louisiana.

Estimated traffic and transportation savings.—We made a careful analysis of the five principal commodities estimated to move on the proposed waterway by the Board of Engineers for Rivers and Harbors. The five commodities analyzed accounted for 567,000 tons of base year traffic, with transportation savings of \$1,066,000, or 67 and 66 percent, respectively, of estimated traffic and transportation savings. Our analysis found 438,000 tons to be prospective waterway traffic, with estimated transportation savings of \$795,000.

Except for a few commodity movements, for example, butane and creosote, most of the traffic expected to move on the proposed waterway is currently moving by rail. Tabulations of rail carload traffic, from, to, and within the area to be served by the proposed waterway show beyond any reasonable doubt that the Board of Engineers for Rivers and Harbors substantially overstated the traffic of some commodities. This was found to be characteristic of each of the five commodities analyzed, but especially of lube oil, iron and steel articles, and iron and steel pipe.

Our analysis also found that transportation savings per ton had been overstated by the Board of Engineers for Rivers and Harbors. For example, the Board estimated transportation savings on coal to be \$1.36 per ton, whereas these cannot exceed \$0.53 per ton.

Evaluation procedure.—Approximately 28 percent of the traffic estimated by the Board of Engineers for Rivers and Harbors to move on the proposed waterway, mouth of Red River to Shreveport, is from and to Lone Star Steel Company's plant. Most of this traffic is moving by rail. The Lone Star Steel Company receives a division of revenues on all rail traffic to and from its plant, since it operates a railroad between Lone Star and Daingerfield, Texas. Obviously, Lone Star Steel Company cannot make a decision to ship by rail-barge or truck-barge without analyzing the effects of such traffic diversion on the costs and revenues of its subsidiary railroad. The Board of Engineers for Rivers and Harbors failed to take this into account in its report. Consequently, its evaluation of Lone Star Steel Company's traffic is in error.

Projected future traffic and transportation savings.—The Board of Engineers for Rivers and Harbors estimated over 90 percent of the base year traffic would increase 4½ percent per year in the period 1961–2030. We found that many of the commodities expected to move on the proposed waterway were related to the petroleum industry; for example, lube oil and upbound iron and steel pipe. The production of lube oil in this area has been relatively unchanged in recent years. Oilfields in this area are old established fields and, in recent years, the demand for pipe for refinery and pipeline use has experienced little growth. Moreover, the estimated economic growth rate for the area is totally inconsistent with the finding of the Board of Engineers for Rivers and Harbors that the area will be economically depressed until 1990.

Subsidies to barge transportation.—Based on the Board of Engineers for Rivers and Harbors' estimate of traffic and average annual charges, barge operators will be subsidized \$4.60 per ton in 1980, the first year of operation. The average subsidy over the project's economic life is approximately \$1.25 per ton. It would be uneconomic to impose the costs of constructing and maintaining this project on the general taxpayers. It also would discriminate against competing modes of transportation.

We cite as a constructive step that President Johnson is requesting a modest user charge of 2 cents per gallon on fuel oil used by towboats on our inland waterways. The Administration is also requesting that this charge be increased in gradual steps by 2 cents per gallon until it reaches 10 cents per gallon in 1970.

Recreation.—Our analysis found that the Board of Engineers for Rivers and Harbors had not fully complied with Senate Document No. 97 and Supplement No. 1 thereto in its evaluation of recreation benefits. The Board of Engineers for Rivers and Harbors failed to adequately assess the effects of alternative recreation projects in the area on the demand and supply for recreation, as well as the value per recreation day. They also incorrectly evaluated the benefits creditable to casual visitors or sightseers. Moreover, they neglected to evaluate the effect of recreation projects to be recommended by the Comprehensive Report on the Red River. This report will be completed in the near future.

Interest rate.—The Board of Engineers for Rivers and Harbors used an interest rate of 3¼ percent to compute project costs and benefits. Our analysis found that this interest rate is much too low and results in understating project costs and overstating project benefits. Since submission of the report, the interest rate has been increased to 3¼ percent. The current yield on key long-term Treasury bonds is approximately 5½ percent. The opportunity cost of capital is even higher. The use of a more realistic interest rate, for example, 5½ percent, makes the project even less justified than our analysis found it to be. However, in our analysis, we used an interest rate of 3¼ percent so it would be comparable with the Board of Engineers for Rivers and Harbors' report.

It is of significance to note that President Johnson, in his Budget Message, stated the interest rate being used by the Federal agencies in formulating and evaluating proposed water resource projects is significantly lower than the cost of borrowing by the U.S. Treasury. President Johnson also stated that the Water Resources Council is developing a more appropriate interest rate for use in evaluating water resource projects. During the first week of May 1968, the U.S. Treasury borrowed money at an interest rate of 6 percent. Obviously if the subject project were analyzed using a realistic interest rate, the benefit-cost ratio would be substantially reduced.

Area redevelopment benefits.—The Association of American Railroads supports the objectives of alleviating poverty wherever it exists. The area in which the proposed project is located is largely rural and is characterized by substantial rural as opposed to urban poverty.

We have had the opportunity to study a report by the President's National Advisory Commission on Rural Poverty entitled "The People Left Behind,"

dated September 1967. This very commendable report found that available evidence indicates that little, if any, direct employment of the unskilled rural poor results from the construction of natural resource projects (page 134). It also noted that the construction of such projects creates false hopes concerning their contribution to increasing employment and incomes of the rural poor.

It is also noteworthy that the Economic Development Administration, U.S. Department of Commerce, does not include construction jobs created by their projects as a means of justifying such projects (*Economic Development*, Vol. 4, No. 9, September 1967, page 2). The Association of American Railroads finds no support for a procedure that includes part of the project costs as a means of justifying authorization and construction of the project.

Transportation capacity.—The New Orleans District's report determined the area to be served by the proposed waterway has excellent transportation facilities. This analysis finds there is substantial underutilization of present transportation capacity. The proposed waterway will add to the excess capacity and result in the misuse of the nation's limited resources. Chronic excess transportation capacity can only result in increasing the Nation's total transportation costs.

Recommendation.—The analysis made by the AAR Overton Canal-Red River Waterway Project Committee found the benefit-cost ratio for the navigation project of the Red River, from its mouth to Shreveport, to be only 0.7 to 1, even on the basis of an unrealistic interest rate of 3½ percent. Since the project clearly lacks economic justification, we recommend that the navigation project not be authorized by the committee.

This completes my statement and I appreciate the opportunity the committee afforded me in making this presentation.

Mr. TANGEROSE. The analysis made by the AAR Overton Canal-Red River Waterway Project Committee found the benefit-cost ratio for the navigation project of Red River, from its mouth to Shreveport, to be only 0.7 to 1, even on the basis of unrealistic interest rate of 3½ percent. Since the project clearly lacks economic justification, we recommend that the navigation project not be authorized by Congress.

Mr. BLATNIK. Thank you, Mr. Tangerose.

Mr. TANGEROSE. Thank you, Mr. Chairman.

Mr. BLATNIK. Mr. Madden.

CALUMET-SAG PROJECT MODIFICATION

STATEMENT OF HON. RAY J. MADDEN, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF INDIANA

Mr. MADDEN. Mr. Chairman, unfortunately, the Rules Committee is meeting all day. I came over to thank the committee for calling these hearings on the authorization and modification of the Calumet-Sag modification. I again thank the committee and express my support for this modification.

Mr. BLATNIK. We appreciate the gentleman making an extraordinary effort to be here in person on behalf of this project.

The Honorable John Kluczynski joins you in support of the project too.

Mr. Kluczynski.

STATEMENT OF HON. JOHN C. KLUCZYNSKI, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF ILLINOIS

Mr. KLUCZYNSKI. I am pleased as a member of this committee to appear here today in support of H.R. 15433, a bill authorizing modification of the existing projects for the Illinois Waterway, Ill. and Ind.,

and Indiana Harbor and Canal, Ind., and in support of my neighbors and very good friends from Indiana.

This bill would modify the Calumet-Sag navigation project authorized by the River and Harbor Act of 1946 in accordance with House Document 45, 85th Congress, insofar as it applies to existing highway bridges in part II of the project. This waterway is a major link between the Great Lakes and the Mississippi River.

Part II would provide a 9-foot-deep channel along the general route of the Grand Calumet River between the Little Calumet River and Clark Street, Gary, Ind., a turning basin at Clark Street, a lock and controlling links in the Grand Calumet River, and reconstruction or alteration of all obstructive railroad bridges to provide suitable clearances.

The River and Harbor Act of 1946 authorized Federal participation in the alteration of obstructive railroad bridges for part I of the Calumet Bay project in accordance with the provisions of the Truman-Hobbs Act. In 1952 the Truman-Hobbs Act was amended to include highway bridges as well as railroad bridges. Thereafter, the Congress in 1958 modified part I to authorize Federal participation in the relocation of highway bridges, so as to be consistent with the amended Truman-Hobbs Act.

This legislation would authorize Federal participation in the alteration of obstructive highway bridges in part II on the exact same basis as that authorized for part I by the 1958 River and Harbor Act.

In view of the economic need for the development of the navigation facilities of the Calumet River in this area, I urge favorable consideration of this bill. I understand that the State of Indiana and the local interests in the project area are willing to cooperate and to assume their share of the burden.

Mr. BLATNIK. Thank you, Mr. Kluczynski.

MAINTAIN HARBORS AND WATERWAYS AT DEPTHS REQUIRED FOR DEFENSE PURPOSES

Mr. BLATNIK. Mr. Joseph Belle, Special Assistant, Facilities, Project Division, Naval Engineering Command, Department of Defense, Washington, D.C., on H.R. 801, H.R. 2780, and H.R. 2844, defense harbors.

STATEMENT OF JOSEPH V. BELLE, SPECIAL ASSISTANT, FACILITIES, PROJECT DIVISION, NAVAL ENGINEERING COMMAND, DEPARTMENT OF DEFENSE, WASHINGTON, D.C.

Mr. BELLE. Mr. Chairman, members of the committee, the Department of the Navy would like to testify in favor of H.R. 801 and the companion resolutions.

Mr. BLATNIK. Do they have the names who are sponsoring them?

Mr. BELLE. Mr. Leggett, Mr. Cramer, and Mr. Waldie.

The proposed bills would authorize the Chief of Engineers, Department of the Army, to expend certain appropriated funds to maintain harbors and waterways at depths required for defense purposes.

The Navy has been requested to express the views of the Department of Defense on the proposed legislation.

The navigation depths of the various harbors and waterways are established by Congress in the various acts which authorize the construction, repair, and preservation of certain public works on rivers and harbors for navigation, such as the River and Harbor Act of 1960 (74 Stat. 480).

The Corps of Engineers, Department of the Army, traditionally has been assigned responsibility for navigation improvements and maintenance of harbors and waterways. Each year the Corps of Engineers submits reports to Congress in connection with the proposed river and harbor bill. These reports outline the work to be done on the various projects—including project depths. The navigation depths are thus established by these reports which are specifically mentioned in, and become part of, such acts as may be enacted by the Congress.

Presently, the authority of the Corps of Engineers to expend civil works funds for the establishment and maintenance of channel depths prescribed by the various river and harbor acts does not embrace military requirements that are in excess of commercial needs.

The increased depths required for the operation of Navy ships and the nuclear submarine fleet necessitate the maintenance of certain harbors and channels deeper than those prescribed by the various river and harbor acts as the navigation project depths. These increased depths for naval requirements could be said to render meaningless the shallower depths prescribed by the various river and harbor acts.

Inasmuch as the various river and harbor acts do establish navigation depths for commercial needs, and where the depths required by naval vessels are greater than these commercial needs, then it follows that commercial interests become beneficiaries of military expenditures. Notwithstanding the purposes of the various river and harbor acts, the present funding situation places the Department of Defense in the position of subsidizing certain waterways for use by commercial and private shipping.

The legislation proposed would essentially give to U.S. Government vessels consideration equivalent to that given to commercial vessels. The Departments of the Army and Air Force have no objection to the proposed legislation.

Necessary coordination has been done within the Department of Defense in accordance with procedures prescribed by the Secretary of Defense.

The Bureau of the Budget has advised that, from the standpoint of the administration's program, it has no objection to the proposed legislation.

The Department of the Navy recommends enactment of the proposed legislation.

Mr. BLATNIK. Thank you, Mr. Belle. Any questions?

Mr. Harsha.

Mr. HARSHA. I do not quite understand your logic in this statement, Mr. Belle, because you have to construct deeper channels for military or naval uses, that commercial uses benefit from military expenditures.

Can you explain to me a little more what you mean?

Mr. BELLE. I can give some examples, which will probably answer your question. If we take the main channel into San Diego Bay, the project depth for commercial needs is 35 feet. The Corps of Engineers

has been authorized by the Congress, as I understand, to dredge to only 35 feet. The Navy requirement is 42 feet.

In fiscal 1961, the Navy funded dredging in San Diego Harbor to the tune of \$2,851,000, which by itself automatically and completely took care of commercial needs in itself.

Mr. HARSHA. But you would have done that had there been no commercial traffic in there; would you not?

Mr. BELLE. We would have had to do it if the Corps of Engineers were not authorized to go beyond the 35 feet as the question at hand.

Mr. HARSHA. Do you mean that under the Corps of Engineers restrictions that only ships, commercial ships that could travel in 35-foot depths would be entitled to be in there, but because you dug it to 42 feet, then larger vessels can come in there and use that?

Mr. BELLE. That is not necessarily the Navy's permission, Mr. Harsha. The Navy's permission is in the establishment of project depths in Federal waterways, the U.S. Government vessels, in the depths required for them, be given equivalent consideration as to the requirement for depths for commercial and private vessels, since it has been designated a "Federal waterway" under the responsibility of the Corps of Engineers, under the civil works appropriations.

Mr. HARSHA. Do commercial vessels have the right to use these—

Mr. BELLE. Yes, sir; because they are Federal waterways which the Navy has to use.

Mr. HARSHA. Are they restricted to the type of vessel that can only use a 35-foot-depth channel?

Mr. BELLE. Is the Navy vessel?

Mr. HARSHA. No; commercial.

Mr. BELLE. No, sir; certainly not to my knowledge.

Mr. BLATNIK. Repeat again, Mr. Belle, just what would this bill do.

Mr. BELLE. This bill inasmuch as the waterways in question require it to be used by naval vessels are Federal waterways, that the depths authorized by the Congress be those depths required by the U.S. Government vessels when they require a depth greater than commercial vessels.

Mr. BLATNIK. What does that mean in terms of cost, project costs?

Mr. BELLE. In discussions with the Corps of Engineers we feel it might not be more than two to three projects a year, and not more than several million dollars, \$2 to \$3 million a year.

Mr. HARSHA. Does that mean the cost of constructing the additional depth would come out of the Corps of Engineers' funds, rather than out of the Department of Navy's funds?

Mr. BELLE. That is right, sir.

Mr. HARSHA. In other words, it is going to cost the Government just as much in the long run, but it comes out of Paul's pocket instead of Peter's pocket?

Mr. BELLE. Yes. The only savings we can perceive is savings in administration, because there is split responsibility right now.

Mr. HARSHA. What is the Corps of Engineers' position on that?

Mr. GURNEE. My name is Mark S. Gurnee, Chief of Operations for Civil Works in the Corps of Engineers. We have subscribed to this statement, and also the statement submitted on behalf of the Department of Defense by the Navy on April 1, 1968, which takes the same position which Mr. Belle has taken here.

Mr. BLATNIK. Thank you, Mr. Belle.

Mr. BELLE. Thank you, Mr. Chairman.

Mr. BLATNIK. At this point there will be inserted in the record correspondence received by the Committee from Hon. Robert L. Leggett of California.

CONGRESS OF THE UNITED STATES,
HOUSE OF REPRESENTATIVES,
Washington, D.C., June 25, 1968.

HON. GEORGE H. FALLON,
*Chairman, Public Works Committee,
House Office Building,
Washington, D.C.*

DEAR MR. CHAIRMAN: There is pending before your committee H.R. 801, H.R. 2844 and H.R. 2780 to authorize the Chief of Engineers, Department of the Army to expend certain appropriated funds to maintain harbors and waterways at a depth required for defense purposes.

This legislation is simple and avoids duplication of management of harbor dredging depths between the Corps of Engineers, Civil Works Department and the Department of Defense.

There are three or four harbors in the country which qualify for consideration under this legislation which I would ask you to include as an amendment to the omnibus Public Works Bill.

As an example, at Mare Island Naval Shipyard in my Congressional District the Civil Public Works current authorization maintained by the Corps of Engineers provides for a relatively shallow, rather wide maintained depth. The Department of Defense for purposes of launching submarines requires, on the other hand, a deeper depth in excess of 30 feet. However, defense width of the channel is not nearly as extensive as the Civil Works width. The result is total confusion which will be obviated by this simple amendment to the pending bill. The amendment has the full support of the Department of Defense as is evidenced by the Department of the Navy report on file.

I attach hereto in support of the enactment of this amendment copy of letter dated October 4, 1965 from the Department of the Navy, analysis prepared by the Department of the Navy indicating the nine harbors in the United States which will be affected by this legislation and copy of analysis and rationale prepared by the Mare Island Naval Shipyard indicating special conditions applicable at that base.

Your many courtesies are appreciated.

Very sincerely,

ROBERT L. LEGGETT,
Member of Congress.

Enclosures.

DEPARTMENT OF THE NAVY,

DEPARTMENT OF THE NAVY,
OFFICE OF THE SECRETARY,
OFFICE OF LEGISLATIVE AFFAIRS,
Washington, D.C., October 4, 1965.

HON. GEORGE H. FALLON,
*Chairman, Committee on Public Works,
House of Representatives,
Washington, D.C.*

MY DEAR MR. CHAIRMAN: Your request for comment on H.R. 717, a bill "Authorizing the Chief of Engineers, Department of the Army, to expend certain appropriated funds to maintain harbors and waterways at depths required for defense purposes", has been assigned to this Department by the Secretary of Defense for the preparation of a report thereon expressing the views of the Department of Defense.

This bill would authorize the Chief of Engineers, Department of the Army, to expend Civil Works funds to maintain harbors and waterways at depths required for defense purposes. The navigation depths of the various harbors and waterways are established by Congress in the various Acts which authorize the construction, repair and preservation of certain public works on rivers and harbors for navigation, such as the River and Harbor Act of 1960 (74 Stat. 480). The Corps of Engineers, Department of the Army, traditionally has been assigned

responsibility for navigation improvements and maintenance of harbors and waterways. Each year the Corps of Engineers submits reports to Congress in connection with the proposed River and Harbor bill which outline the work to be performed on the various projects. The navigation depths are thus established by these reports which are specifically mentioned in and become part of such Act as may be enacted by the Congress.

The increased depths required for the operation of Navy ships and the nuclear submarine fleet necessitate the maintenance of certain harbors and channels at depths deeper than those prescribed by the various River and Harbor Acts as the navigation project depths. Since the authority of the Corps of Engineers to expend Civil Works funds for maintenance is limited to the navigation project depth, military funds must now be expended not only to obtain the greater depth, but also to maintain it, although Civil Works funds have been used in the past to maintain the same waterways at the lesser depth. In this connection, experience has shown that there would be some additional maintenance costs involved for the deeper channel because of the more rapid rate of shoaling.

The present funding situation places the Department of Defense in the position of subsidizing certain inland waterways for use by commercial and private shipping. In the case of those waterways where there is a defense requirement for a depth greater than the project depth, the Department of Defense must budget for and finance through its appropriations not only the cost of the initial dredging but that of the periodic dredging to maintain that greater depth resulting in the project depth being maintained at the expense of the Department of Defense. Accordingly, it is submitted that enactment of this bill would offer several advantages to the Department of Defense and the Government. The Department of Defense would not be subsidizing the cost of maintaining certain channels for commercial and private use, and budgeting for maintenance of all inland waterways would be centralized in one government agency, the Corps of Engineers. It would also help in obtaining a more accurate comparison of shipbuilding costs in naval shipyards as compared to private yards, in that the cost of dredging to extra depths is now charged to the naval shipyard overhead while private yards are not subject to such a charge.

The Department of the Navy, on behalf of the Department of Defense, favors the enactment of H.R. 717.

Enactment of H.R. 717 would not require any additional cost to the Federal Government. Since the Department of Defense would be relieved of the necessity of providing military funds for the deeper channel, that budget would be reduced. On the other hand, the Department of the Army Civil Works funds budgeted to provide the authorized lesser depth would have to be augmented by the same amount. Some savings might result from the simplified administration resulting from single source funding.

This report has been coordinated within the Department of Defense in accordance with procedures prescribed by the Secretary of Defense.

The Bureau of the Budget advises that, from the standpoint of the Administration's program, there is no objection to the presentation of this report on H.R. 717 for the consideration of the Committee.

For the Secretary of the Navy.

Sincerely yours,

M. K. DISNEY,
Captain, U.S. Navy,
Director, Legislative Division.

DEPARTMENT OF THE NAVY,
OFFICE OF THE SECRETARY,
Washington, D.C.

Hon. JOHN W. McCORMACK,
Speaker of the House of Representatives,
Washington, D.C.

MY DEAR MR. SPEAKER: There is enclosed a draft of proposed legislation "Authorizing the Chief of Engineers, Department of the Army, to expand certain appropriated funds to maintain harbors and waterways at depths required for defense purposes."

This proposal is a part of the Department of Defense Legislative Program for 1962 and the Bureau of the Budget advises that, from the standpoint of the Ad-

ministration's program, there is no objection to the presentation of this proposal for the consideration of the Congress. The Department of the Navy has been designated as the representative of the Department of Defense for this legislation. It is recommended that this proposal be enacted by the Congress.

PURPOSE OF THE LEGISLATION

The purpose of the proposed legislation is to authorize the Chief of Engineers, Department of the Army, to expend Civil Works funds to maintain harbors and waterways at depths required for defense purposes.

The navigation depths of the various harbors and waterways are established by Congress in the various Acts which authorize the construction, repair and preservation of certain public works on rivers and harbors for navigation, such as the River and Harbor Act of 1960 (74 Stat. 480). The Corps of Engineers, Department of the Army, traditionally has been assigned responsibility for navigation improvements and maintenance of harbors and waterways. Each year the Corps of Engineers submits reports to Congress in connection with the proposed River and Harbor bill which outline the work to be performed on the various projects. The navigation depths are thus established by these reports which are specifically mentioned in and become part of such Act as may be enacted by the Congress.

The need for the proposed legislation has arisen because the increased depths required for the operation of Navy ships and the nuclear submarine fleet necessitate the maintenance of certain harbors and channels at depths deeper than those prescribed by the various River and Harbor Acts as the navigation project depths. Since the authority of the Corps of Engineers to expend Civil Works funds for maintenance is limited to the navigation project depth, military funds must now be expended not only to obtain the greater depth, but also to maintain it, although Civil Works funds have been used in the past to maintain the same waterways at the lesser depth. In this connection it should be noted that experience has shown that there would be little, if any, additional maintenance costs involved for the deeper channel.

Attention is invited to the requirement in the proposed legislation which limits the expenditure of funds to those channels which the Chief of Engineers determines will also serve essential needs of general commerce.

The proposed legislation would currently affect the following channels and waterways:

- New London, Conn. : State Pier approaches and berths.
- New York (Bayonne Annex) : Approach to drydock and berths.
- Charleston, S.C. : Channel from ocean to Goose Creek.
- Port Canaveral, Fla. : Entrance channel and turning basin.
- Mayport, Fla. : Channel in St. Johns River from ocean to entrance to Navy basin.
- Pascagoula, Miss. : Channel from ocean to Ingalls Shipyard.
- Pensacola, Fla. : Entrance channel and turning basin.
- San Diego, Calif. : Channel and turning basin at North Island.
- Mare Island, Calif. : Naval Shipyard to Carquinez Straits.

COST AND BUDGET DATA

The proposed legislation would not require any additional cost to the Federal Government. Since the Department of Defense would be relieved of the necessity for funding all of the maintenance for the deeper channel, a savings would accrue to this Department. On the other hand, Department of the Army civil works funds, if budgeted for and appropriated, are already available for the authorized lesser depth and could be applied to the greater depth.

Sincerely yours,
Enclosure.

MARE ISLAND NAVAL SHIPYARD, VALLEJO, CALIF.—DEEPENING
MARE ISLAND STRAIT CHANNEL

I. HISTORY

Silt has been a problem in Mare Island Strait since 1900. The rate of silt accumulation in Mare Island Strait is dependent on a number of factors including

flood runoff from the Sacramento-San Joaquin Rivers, wind velocity and direction, salinity of water, distance which salt water has moved upstream, depth of water at point of deposition, etc. The silt comes downstream in the fresh water from the Sacramento-San Joaquin river system. When the silt interacts with the salt water it becomes colloidal and is easily carried from place to place. The colloidal matter usually is first deposited in San Pablo Bay. During spring and early summer the westerly winds cause the silt to become waterborn and much of it is carried into Mare Island Strait and deposited. There is a two hour differential in tides between Carquinez Strait and Mare Island Strait. Encl. (1) illustrates the movement of silt from San Pablo Bay upstream into Carquinez Strait. Water can flow from Carquinez Strait when the flood tide has started in Mare Island Strait and it is still ebbing in Carquinez Strait.

The U.S. Army Engineers, by H. Doc. 644, 75th Congress, 3rd Session, dated June 20, 1938, were authorized to maintain a channel in Mare Island Strait at a depth of 30 feet below mean lower low water. The channel is 700 feet wide from Carquinez Strait flaring into a turning basin 1000 feet wide at the southerly end of the finger piers and extending to a line 75 feet southerly from the causeway between Vallejo and Mare Island. The depth decreases from 30 feet to 26 feet in the northerly 600 feet of the turning basin. This channel is shown on encl. (2).

The Shipyard maintains berths outside of the turning basin and areas in berths inside the turning basin where the Army dredge cannot operate because of ships or other obstructions.

II. NUCLEAR SUBMARINE REQUIREMENTS

The Shipyard, on 10 March 1959, requested the U.S. Army Engineers to increase the depth of the channel and turning basin to 35 feet and decrease the widths by about 400 feet. This depth was to allow the passage of nuclear powered submarines through Mare Island Strait. The Army Engineers were unable to sponsor this legislation. Subsequently, 35 foot depth requirement was reduced to 32 feet because of the need of austerity. Under this reduced depth, it was recognized that it would be necessary to restrict the movement of the nuclear submarines to one hour before and one hour after high tide to keep them off the bottom of the 32 foot channel.

The Navy obtained funds from a Military Construction Project and authorized the U.S. Army Engineers to deepen the channel with their dredge. The work was completed in January 1962. Some overdredging was accomplished at this time to allow for silting. This channel is shown on encl. (2).

Experience now shows that the restrictions as to times of operations through the 32 foot channel are not feasible where a multiple number of ships are outfitting, docking, undergoing trials, or operating in and out of the shipyard. Further, unforeseen weather conditions, such as fog inside the bay or in the submarine operating area, together with operational and testing uncertainties, preclude any rigid adherence to tidal schedules.

The present construction program schedules for Mare Island Naval Shipyard require that SSB(N) submarines operate extensively in and out of Mare Island Channel on sea trials during the period March 1963 through October 1965. These ships require 35 feet at MLLW during this period. Additionally, present logistic planning for the shipyard includes a regular overhaul capability for SS(N) submarines. These submarines require a minimum of 34 feet at MLLW and this depth requirement is a continuing one.

The requirement for 35 feet at MLLW, is concurred in by the 12th Naval District and Fleet Operating Commands. The Shipyard has submitted Project P-21 in its 1964 Military Construction Program. Encl. (3) is the description for this project.

III. REQUIREMENTS FOR MAINTENANCE DREDGING

Following completion of the MilCon project for deepening the channel to 32 feet the U.S. Engineers were requested to enter into negotiations to maintain the channel to this new depth. The Chief of Engineers, U.S. Army, advised DuBocks on 30 July 1962 as follows:

"The authorized depth for the Federal navigation project for Mare Island Strait is 30 feet and no general authority currently exists which would permit

providing greater depths on a continuing basis. Accordingly, funds appropriated for Civil Works functions cannot legally be used to share in defraying the cost of maintaining depths below 30 feet at all times. This restriction on the expenditure of civil funds is not a policy decision but rather a matter of law since the authorized project depths has been established by Act of Congress."

This has been interpreted to mean that if the Navy does not want the channel to ever get more shallow than 32 feet below MLLW, the Navy will have to pay the entire cost of dredging in the area over which such depth is required.

During the five fiscal years 1956-57 and 1960-61 inclusive, the Navy's dredging averaged 840,000 cu. yds. at a cost of \$167,300 annually and the Army's dredging 2,070,000 cu. yds. at a cost of \$389,000 annually. If the Shipyard has to pay for all maintenance dredging in the deepened channel, it will cost the shipyard some \$300,000 annually more than the cost of additional silting due to the deepened channel only. Encl. (4) illustrates the difference in the Navy's and Army's position with regard to liability for the dredging. Encl. (5) explains encl. (4).

IV. SPECIAL STUDIES

Numerous proposals to reduce silting in the entire Bay area have been advanced. To further this program, the U.S. Army Engineers have constructed a model of the Bay area at Sausalito. They are conducting tests to determine control works required in San Francisco Bay and tributaries. The Navy has contributed funds for studies of value to the Navy. One of these studies is to determine the most economical method of reducing silting in Mare Island Strait.

V. COMMUNITY INTERESTS OTHER THAN THE NAVY

The Cities of Vallejo and Napa and industries along Mare Island Strait and the Napa River are also interested in deepening the channel, reducing silting and controlling floods.

Enclosure (7) taken from the San Francisco Chronicle of 10 October 1962 is further evidence of the need for deeper channels in the San Francisco Bay Area. It emphasizes the value of deep water berthing facilities, and the contribution of such facilities to development of the surrounding area.

Enclosure (8) is an article from the Vallejo Times-Herald of 11 December 1962 in regard to a meeting to be held on the problem with reference to Mare Island Strait and Napa River. It appears that civilian interests in a deep water channel for this evaluation are as important as military requirements.

VI. SUMMARY

The problem of deepening Mare Island Strait can be summarized by stating immediate and long range objectives separately:

A. The immediate requirements for a solution to the Shipyard's dredging problems are as follows:

(1) Enabling legislation should be passed to permit the Army Engineers to budget and perform maintenance dredging for defense purposes. This legislation has been prepared and sent to the Bureau of the Budget for inclusion in the President's budget, encl. (6).

(2) Authorization and funding is needed under the Military Construction Program if not otherwise available, for a project to deepen the Mare Island Strait Channel to 35 feet. Such a project has been prepared and submitted to the Bureau of Ships. (See encl. (3)).

B. The long range requirements envisage:

(1) Complete model studies and engineering studies to determine the most effective and economical way to control silting in the Strait.

(2) After the Army Engineers have completed their studies, funding will be needed for detail engineering and to subsequently construct control works to reduce the silting, control floods and maintain a deep channel in the Napa River and Mare Island Strait.

Enclosure:

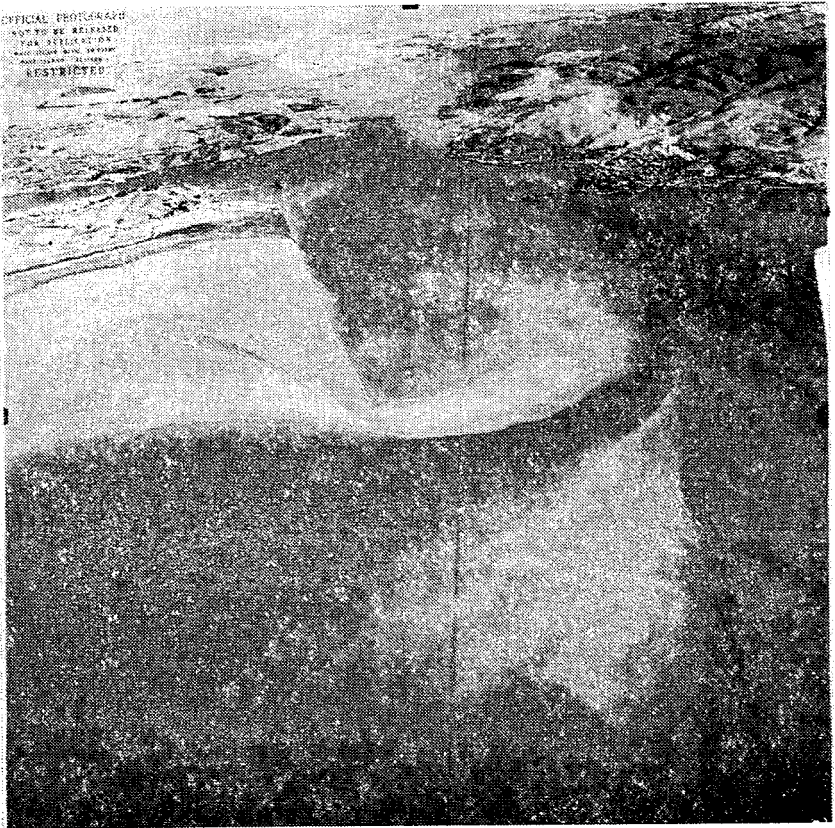
(1) Aerial Photograph showing the southerly end of Mare Island with silt moving from San Pablo Bay into Carquinez Strait.

- (2) Map of Mare Island and Mare Island Strait showing channels.
- (3) Justification of Project P-21 for FY 1964 Military Construction Program.
- (4) Chart showing variation of dredging costs between Army and Navy.
- (5) Army dredging costs and explanation of encl (4).
- (6) Letter from General Counsel of Dept. of Defense to Budget Director with two enclosures.

(7) Clipping from San Francisco Chronicle dated 10 October 1962.

(8) Clipping from Vallejo Times Herald dated 11 December 1962.

Looking east from San Pablo Bay over westerly end of Dike 12 up Carquinez Strait, southerly end of Mare Island in left center. Shows silt laden water ebbing from San Pablo Bay and mixing with water flooding into Carquinez Strait. Water is ebbing from Mare Island Strait into Carquinez Strait in upper left center. Photo made from colored transparency taken at 1200 on 25 September 1947, altitude 5,000 ft., tide 5.1 ft. above MLLW.

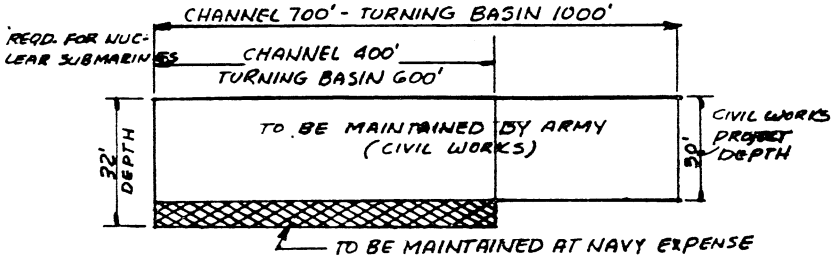


DEPARTMENT OF THE NAVY				FY 1964 MILITARY CONSTRUCTION PROGRAM - ITEM JUSTIFICATION DATA				DATE: 28 August 1962	
ESTABLISHMENT NAME AND LOCATION				PROJECT TITLE				PROJECT NUMBER	
Mare Island Naval Shipyard, Vallejo, Calif.				Dredge to 35' Mare Island Strait				165-10	
3				3 350,000				4350,000	
SECTION I. ITEM DESCRIPTION				SECTION II. COST ESTIMATES				SECTION III. BASIS OF REQUIREMENT	
1. ☒ MILITARY	2. ☐ CIVILIAN	3. ☐ OTHER	4. ☐ SPECIAL	5. ☐ TOTAL	6. ☐ TOTAL	7. ☐ TOTAL	8. ☐ TOTAL	9. ☐ TOTAL	
The deepening of the Mare Island Channel and Turning Basin from a project depth of 32 feet below MLW to a project depth of 35 feet below MLW as follows:				165-10 Original Dredging				813,333 42 350	
1. Dredging from 32 feet to 35 feet depth a channel 400 feet wide extending from the Carqueiz Strait to the vicinity of the Mare Island Naval Shipyard Finger Piers, a distance of 7800 feet.									
2. Dredging from 32 feet to 35 feet depth a turning basin 600 feet wide extending from the Mare Island Naval Shipyard Finger Piers to Berth 7, a distance of 1500 feet.									
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MILITARY CONSTRUCTION REQUEST - ITEM JUSTIFICATION DATA
 NAVJAGS 2871 (1-58) (Supplement to NAVJAGS 2871)

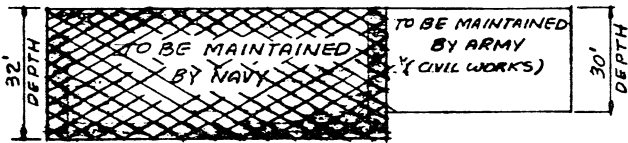
DIVISION OF COSTS for MAINTENANCE DREDGING

NAVY POSITION



ESTIMATED ARMY COSTS 2,000,000 CY. @ \$0.25 \$500,000 (8%)
 ESTIMATED NAVY COSTS 400,000 CY. @ \$0.25 100,000 (17%)
 TOTAL \$600,000

ARMY POSITION



ESTIMATED ARMY COSTS 40% OF 2,000,000 CY. @ \$0.25 \$200,000 (33%)
 ESTIMATED NAVY COSTS 60% OF 2,000,000 CY. PLUS
 400,000 CY. @ \$0.25 \$400,000 (67%)
 TOTAL \$600,000.00

ARMY DREDGING—ACTUAL COSTS

Fiscal year	Cost	Cubic yards	Cost per cubic yard (cents)
1956-57.....	\$428,000	1,865,000	22.9
1957-58.....	289,000	1,150,000	25.1
1958-59.....	333,000	1,919,000	17.4
1959-60.....	558,000	3,629,000	15.4
1960-61.....	338,000	1,795,000	18.8
Total.....	1,946,000	10,358,000	18.8
Average year.....	389,200	2,071,600	

EXPLANATION OF CHART

The Army's Interim Report on 35' deep channel indicated the additional silting caused by deeper channel would be 600,000 cu. yds. annually. This has been reduced to 400,000 cu. yds. per year for a 32' channel.

Estimates for 1962-1963 are based on normal dredging for 30' channel at 2,000,000 cu. annually plus 400,000 cu. yds. for additional silting due to maintaining narrow 32' deep channel and turning basin.

The Army's dredging cost per cu. yd. is variable, and estimate is based on \$.25 per cu. as the dredging in fall of 1962 cost over 24¢ per cu.

CLINTON CITY, IOWA, BRIDGE COMMISSION

Mr. BLATNIK. The last project is H.R. 13221, Clinton Bridge Commission. Congressman John Culver was prepared to testify earlier today. His statement will appear in the record at this point.

(The statement referred to follows:)

STATEMENT OF HON. JOHN CULVER, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF IOWA

Subject: To include H.R. 13221, relating to the City of Clinton Bridge Commission, in the Omnibus Rivers and Harbors Bill.

Mr. Chairman and members of the Committee. I appreciate this opportunity to submit testimony to you regarding H.R. 13221, a measure I have introduced to assist construction of a new bridge at Clinton, Iowa, and to urge that it be included in the Omnibus Rivers and Harbors Bill before your Committee this week.

The 89th Congress passed PL 89-498 (H.R. 3788) which in effect revived and reenacted earlier legislation approved December 21, 1944 authorizing the City of Clinton Bridge Commission to construct and operate a bridge or bridges across the Mississippi River at or near Clinton, Iowa. PL 89-498 extended the original authority, under which the Gateway Bridge has been constructed and operated, to permit the construction of a new bridge near the site of the present Lyons-Fulton Bridge, which was erected in 1895 and on which traffic is now limited to two-axle, four-tire vehicles. The Lyons-Fulton Bridge, owned by the Commission, was devastated by fire in 1963 and is in such condition that its use is restricted and will not be accepted by the states of Illinois and/or Iowa. The structure must be replaced.

Both Houses of the Congress and the President have, in PL 89-498, recognized the immediate need for an additional bridge crossing at Clinton and extension of the existing authority of the Commission for that purpose.

Subsequent to the passage of PL 89-498, the Commission, on June 7, 1967, distributed a prospectus on the issue of \$8,000,000 of Bridge Revenue Bonds, the proceeds to be used for the construction authorized by the enactment. A ruling was requested from I.R.S. that interest on these bonds would be exempt from taxation under Section 103(a)(1), I.R.C. Under existing policies of the Treasury a favorable ruling did not issue. With a statutory limitation of 6% on the bonds, and due to prevailing conditions in the current money market, no bids were received when the bonds were offered on June 28, 1967.

Because of the inability to market the authorized bonds, the economic needs of the area to be served by the proposed new bridge and the intent of Congress evidenced by passage of PL 89-498 were frustrated. The legislative amendment proposed by H.R. 13221 which I introduced September 28, 1967 would permit construction of the needed bridge which Congress has actually earlier approved. New construction would be financed by a "construction fund" derived from tolls on the Gateway Bridge and continued restricted operation of the Lyons-Fulton Bridge pending completion of a new structure.

The arguments supporting early and favorable action on the proposed legislation are several.

First, this Act merely provides an alternative method of financing construction of a needed new bridge which has already been considered and approved by both Houses and the Executive in the enactment of PL 89-498.

Second, in view of the inability of the Commission to sell its Bridge Revenue Bonds in the current money market an alternative method of financing the new bridge should be authorized. The method proposed involves no federal financing and contemplates earlier retirement of indebtedness on the new bridge and transfer of the structure to the states of Illinois and Iowa than would be possible if Revenue Bonds had been issued and sold.

Further, the burden of interest on Revenue Bonds is avoided and the "construction fund" will earn interest to contribute to construction costs.

Third, the economy of the entire two-state trade area served by the Lyons-Fulton Bridge (to be replaced) is dependent upon two-bridge service across the Mississippi River.

Fourth, on the assumption Revenue Bonds authorized under PL 89-498 could be marketed, the Commission has obtained bids on the sub-structure of the proposed new bridge designed to replace the Lyons-Fulton Bridge. The low bid was very advantageous and substantially below engineering estimates. To avail itself of this favorable bid, the Clinton Bridge Commission in December 1967 marketed to four banks \$2,350,000 in Bridge Revenue Bonds and awarded the contract for the new bridge sub-structure. Installation of the sub-structure is now 30% complete. H.R. 13221 is however urgently required to complete construction of the new bridge.

Fifth, because the constitutionality of the recently enacted Iowa Bridge Bill (S.F. 131, 62d Legislature) must be tested before bonds can be sold by the state under that authority, and because comprehensive studies must be made before any bridges are built under that authority, that state law offers no solution to the urgent problems and requirements of the areas of Iowa and Illinois involved.

Clinton is one of the most rapidly growing, progressive communities in Eastern Iowa and the entire midwest. The need for the new bridge has been recognized and endorsed by the community, the state, and indeed by the Congress itself.

I urge you to include as an amendment to the Omnibus Rivers and Harbors Bill, H.R. 13221, and thank you for the opportunity to submit this testimony.

Mr. BLATNIK. We have Mr. E. L. Swick, Deputy Director, Bureau of Public Roads, Washington, D.C.

STATEMENT OF E. L. SWICK, DEPUTY DIRECTOR, BUREAU OF PUBLIC ROADS, WASHINGTON, D.C.

Mr. SWICK. Mr. Chairman, the Federal Works Agency does not have a prepared statement concerning H.R. 13221. The position on the bill has not cleared the Bureau of the Budget.

Mr. BLATNIK. You are testifying on H.R. 13221, introduced by Mr. Culver?

Mr. SWICK. Yes, sir. Late in 1967 the Iowa Legislature enacted S. 131, which provided authority for the State Highway Commission of Iowa to acquire, purchase and construct interstate bridges and to levy tolls for that construction and operation.

It is the intent of the enactment that the Iowa State Highway Commission would after feasibility studies determine where toll bridges were needed and proceed to issue revenue bonds for their construction. All such bridges would remain under jurisdiction of the highway commission.

At about the same time, this is late in 1967, the Clinton Bridge Commission, which has existed since about 1944, was attempting to finance a new toll bridge across the Mississippi River, between Clinton, Iowa, and Fulton, Mo., to replace an obsolete existing structure called Lyon's Fulton Bridge. The commission had available at that time a sufficient sinking fund to pay off all of its outstanding indebtedness. This indebtedness was incurred for the construction of the gateway bridge, which is the other crossing under the jurisdiction of the Clinton Bridge Commission.

The older Clinton Fulton Bridge was in dire need of replacement. However, the bridge commission in proposing its reconstruction contemplated continuation of tolls on the two bridges, the new one it

would build and the older gateway bridge which had paid itself off at that time.

These actions had two consequences. First, the continuation of tolls on a bridge where the indebtedness had been retired; and, second, the perpetuation of the Clinton Bridge Commission which authorization would have gone out of business. The Federal Highway Administration feels that with as many bridge or river crossings as there are for Iowa, across the Mississippi and Missouri River, Iowa must probably continue to have toll crossings of the major streams on its highway systems. We would prefer, however, that the construction and operation of such bridges by a statewide authority, such as now exists in Iowa, is better than by individual toll commissions, as we have from a number of midwestern States at this time.

Accordingly, it would have been our preference to have had the Clinton Bridge Commission go out of existence after its bonded indebtedness was paid off in 1967 and to have had the Iowa State Highway Commission through its new toll authority undertake the needed construction of a new bridge to replace the Fulton Lyon's Bridge.

The Clinton Bridge Commission was successful, however, in selling bonds for a substructure for a new crossing, and that substructure is now under construction. I understand it is 35-percent complete.

The Iowa State Highway Commission indicates no present interest in taking over the affairs of the Clinton Bridge Commission. It appears, therefore, that realistically, the commission will remain in existence and will own the two crossings of the Mississippi River when the second bridge is finished.

Concerning H.R. 13221 specifically, we are not entirely clear as to the necessity for its enactment at this time. The bridge commission apparently has all of the necessary authorities to sell bonds and to continue in existence without the enactment of the new legislation. There may be technical reasons concerning the establishment of a construction fund utilizing tolls on existing structures to augment the receipts from sale of bonds to finance this second bridge.

There is a further time extension provision in H.R. 13221, which may have been needed at one time. It does not appear to be needed at this time. If it is the finding of the committee that new legislation is necessary to support the authorities which the Clinton Bridge Commission already is exercising, the Federal Highway Administration would have no objection to the enactment of H.R. 13221.

As stated earlier, we would have preferred to utilization of the toll authority set up under State jurisdiction.

That is all I wanted to say, Mr. Chairman.

Mr. BLATNIK. In about three or four sentences, do you recommend the bill?

Mr. SWICK. We have no objections to the bill, would be a better way to say it. We do not understand the necessity for this bill. If there was a necessity for it, we do not have an objection.

Mr. BLATNIK. We will hear further testimony from the Congressman. The method proposed involves no Federal financing, but they feel they ought to have or do need this authority to have alternative methods of financing the new bridge, is that not correct?

Mr. SWICK. That I think is right, yes, sir. However, the toll authority has gone ahead and sold the bonds and begun the construction

under the existing authority. The bridge now is under construction, at least a substructure of it is.

Mr. BLATNIK. The whole bridge, or just the substructure?

Mr. SWICK. Substructure.

Mr. BLATNIK. Do you have to sell more bonds to complete the bridge?

Mr. SWICK. They have to sell more bonds to complete the bridge, yes, sir.

June 24, and he states: In view of the inability of the commission to sell its bridge for revenue bonds in the current money market, an alternative method of financing the new bridge should be authorized.

We will check this further. I have no further questions, Mr. Swick.

Any questions, Mr. Harsha?

Mr. HARSHA. I would like to ask Mr. Swick, this involves two States, Iowa and Illinois.

Mr. SWICK. Yes, sir.

Mr. HARSHA. Are there any positions on the various States involved that you are aware of?

Mr. SWICK. This bridge commission is in Iowa, is an Iowa corporation, and we have asked the Iowa department if they had any interest one way or the other in this bill, and they say they have no interest one way or the other.

We have not contacted the State of Illinois, but I know of no reason why they would have any objection to it.

Mr. HARSHA. The highway department has nothing to do with it then?

Mr. SWICK. The highway department says that they are not interested at this time in taking over this bridge commission operation under their general toll bridge authority.

Mr. HARSHA. Thank you. This concludes our outside witnesses.

Off the record.

(Discussion off the record.)

Mr. BLATNIK. Tomorrow, we will begin hearings, still in public session, of the Corps of Engineers, and normally their testimony would have preceded or been the opening testimony of each individual project in sequence.

The hearings for today are adjourned. The committee will resume its hearings to hear Corps of Engineers testimony tomorrow at 11 o'clock.

(Whereupon, at 4:05 p.m., the committee was adjourned, to reconvene at 11 a.m., Thursday, June 27, 1968.)

OMNIBUS RIVERS AND HARBORS, FLOOD CONTROL, AND RIVER BASIN MONETARY AUTHORIZATION BILL—1968

THURSDAY, JUNE 27, 1968

HOUSE OF REPRESENTATIVES,
SUBCOMMITTEE ON RIVERS AND HARBORS,
OF THE COMMITTEE ON PUBLIC WORKS,
Washington, D.C.

The subcommittee met at 11:05 a.m., in room 2167, Rayburn Building, Hon. John A. Blatnik (subcommittee chairman) presiding.

Mr. BLATNIK. The Subcommittee on Rivers and Harbors of the House Public Works Committee will please come to order, to resume public hearings on rivers and harbors, beach erosion projects, other legislation before the subcommittee.

Normally we hear the Corps of Engineers make their presentation, giving us the physical, technical, engineering aspects and details and specifics on these projects, and we usually follow up with those parties that are interested, certainly our congressional members, and any members we may have from back home.

Because of the conflict with the floor session having moved up to 11 o'clock yesterday morning, and to accommodate those many witnesses who had some distance to travel, so they could be released, we altered the procedure.

This morning we will hear the Corps of Engineers on most of the projects which we heard yesterday.

Off the record.

(Discussion off the record.)

Mr. BLATNIK. We will have the corps testimony now in sequence.

We have, of course, General Noble, the Director of Civil Works, from the Corps of Engineers.

Do you have any opening statement, General, or would you proceed right with the first project?

HUDSON RIVER—DECLARE A PORTION NONNAVIGABLE

STATEMENT OF BRIG. GEN. CHARLES C. NOBLE, DIRECTOR OF CIVIL WORKS, OFFICE OF THE CHIEF OF ENGINEERS, DEPARTMENT OF THE ARMY

General NOBLE. Mr. Chairman, this proposed legislation would declare a portion of the Hudson River along the westerly shore of Lower Manhattan south of the Hudson Tunnel to Battery Park and a portion of the East River along the easterly shore of Lower Manhattan south

of the Brooklyn Bridge to Battery Park nonnavigable waters of the United States.

The Office of Lower Manhattan Development, a part of the Office of the Mayor of New York City, is working on a project for the development of the waterfront of the Hudson and East Rivers within these areas. An initial phase of the work on the Battery Park city project extending from Chambers Street to the Battery is being undertaken jointly by the city of New York and the State of New York. A memorandum of understanding between the city and State provides for the creation by the State of a nonprofit corporation which will lease the area from the city and will undertake to obtain financing and to develop the area without cost to the city. The area will be developed as a balanced community containing residential, commercial and civic facilities. There is nothing in the agreement to indicate waterfront development for shipping, marinas, et cetera, although such features are not excluded.

The purpose of the proposed legislation is to enable the participants in the development to show clear title to areas proposed to be filled so that financing may be obtained. Under the navigation servitude of the United States, fill placed in navigable waters is subject to Federal use without compensation to its owner. While the possibility of such use is remote where substantial development has occurred, still title and mortgage insurance firms are very reluctant to insure clear title to or accept as security such filled lands unless the navigation servitude is made inapplicable. The proposed legislation is intended to accomplish this.

The existing project for the improvement of the Hudson River which was adopted by Congress between 1913 and 1937 provides in part for a channel 40 feet deep for the full width of the river from deep water in Upper Bay, New York Harbor, to the north line of West 59th Street, Manhattan, and for a channel 2,000 feet wide and 45 feet deep from Upper Bay to West 40th Street and thence 48 feet deep to West 59th Street.

In the section of the Hudson River between the Battery and Canal Street there were formerly 27 piers in use for foreign and domestic shipping including railroad lightering service between New Jersey and New York. At the present time there are only two piers in use in foreign service, six have been demolished and the remaining are either vacant or used for nonwater-oriented storage. In the section of the East River between the Battery and the Brooklyn Bridge there were formerly 15 piers in use for foreign and coastwise shipping and the Fulton Fish Market. At the present time, there are only two piers in use in foreign service. The remaining piers are either vacant or have been demolished. If the lower Manhattan project is consummated, the remaining piers will have to be demolished.

Mr. Chairman, there are a number of questions which should be resolved concerning the possible effects of the filling on navigation and the regimen of the waterway.

These questions involve the effect of the land fill on current velocities and flow patterns in the river as well as in any slips for pleasure craft or commercial ships which may be proposed and its effect on the shoaling of the channel and vessel berths.

While preliminary indications are that changes in velocities will not be significant, the Corps of Engineers has not had occasion to develop necessary data to resolve this question completely.

There are other questions as to where the new bulkheads may have to be placed for engineering reasons, the necessity not to inadvertently create a no man's land offshore between the new bulkheads and the legislative limits of the area, and other loose ends which I am sure can be worked out. While we do not take exception to the general principles of the plan, we feel these outstanding questions and loose ends should be tidied up.

If the Congress considers that the proposed legislation should be enacted, it is recommended that the portion declared nonnavigable be limited to a line 100 feet or more shoreward of the established U.S. pierhead line, the exact limits to be determined by subsequent technical studies; that there be excluded from the area determined to be nonnavigable any water areas that may be reserved in the development for marinas or otherwise not bulkheaded and filled; and that plans for structures controlling the fill be made subject to approval by the district engineer, Corps of Engineers, New York.

I have discussed these areas of concern with Congressman Celler and representatives of the city planning commission and have been assured fullest cooperation in resolving these outstanding questions.

These comments and recommendations do not necessarily represent the views of the Department of the Army or the Bureau of the Budget.

This concludes my statement.

I am available for questions.

Mr. BLATNIK. General, at the outset, may I say there will be no Federal cost involved here; is that correct?

General NOBLE. That is the statement made by the authority, yes, sir, yesterday in testimony. We do not have too much information on this, sir, except what I have testified to this morning. These are the kind of things we hope to resolve in discussions with the group. We had one discussion set up for today.

Mr. BLATNIK. There have been prior meetings with your district engineer?

General NOBLE. Yes, sir. Also, the corps ran a very quick model study for the authority, I think it was a 4-day run, on what the effect would be on the East River with this kind of filling in.

Mr. BLATNIK. From the original 27 piers in use for foreign and domestic shipping on the Hudson River side, between the Battery and Canal Street, at present there are only two. Does that mean that only two piers will service all our foreign shipping?

General NOBLE. I am going to ask Mr. Gurnee to correct me on this. Most of the shipping has moved uptown. The lower end of the Manhattan waterfront is pretty much falling into disuse. What is being proposed here is really, in principle, a good thing. These people want to go in there and take out all these rotten piers, decaying structures, decrepit structures, and replace them with a rehabilitated shoreline, fill it in and develop it.

These structures are doing a lot to continue our floating debris in the harbor. Personally I would like to see them removed.

Mr. BLATNIK. I see. So generally the concept is sound, in your estimation?

General NOBLE. In principle, it is a good thing.

Mr. BLATNIK. Would be far better use of the lower Manhattan and extending the area out into nonnavigable portions, where, over a period of years, there is no need for navigation.

General NOBLE. They have fallen into disuse and disrepair. They are collecting snags and silting up. It is not a good situation. It needs facelifting.

Mr. BLATNIK. It needs this type of congressional action before you can get any financing from private sources, whether it be insurance companies or banks?

General NOBLE. This is the situation. Because the navigation servitude, the financing companies are not willing to risk their money.

Mr. BLATNIK. We have no bill on legal language yet drafted.

General NOBLE. I have seen none, sir. I would hope in the drafting of such language, we will be able to put these necessary safeguards in that will not end up in our creating something that we do not want. I am particularly concerned, Mr. Chairman, that we not set up a legislative determination of nonnavigability along a line which subsequently is not built out to, for one reason or another, either engineering reasons or project concept reasons. We are liable to end up with a strip of water, either along the shore or into marina areas that comes under nobody's control. The Coast Guard will not be able to go in there.

The Corps of Engineers will have no authority in there. This nobody wants, including the development authority representatives. I have ascertained. It has to be worked out.

Mr. BLATNIK. You have made the point, safeguards should be there, and we will urge and see that they are in there.

Would you be able, in general, to have your staff people, legal people, write out the language basically, spell out the objectives of this proposal by Mr. Celler to meet the general needs and objectives of their Office of Lower Manhattan Development, and yet have flexibility so you can adjust your boundaries. You do not have to have a fixed line determined now, just approximately in this area, or boundaries to be later determined, but approximately in this area. That could be put in language.

General NOBLE. I am sure it can. I feel we ought to do this, and we have arranged for meetings to this end in the next day or so.

Mr. BLATNIK. Would you pursue this further with Mr. Celler's people?

General NOBLE. Yes, sir.

Mr. BLATNIK. Thank you very much. Mr. Harsha.

Mr. HARSHA. General, what is the position of the State of New York and the city of New York on this proposed language?

General NOBLE. They are for it, sir. They are jointly in partnership on it.

Mr. HARSHA. Did we do this a couple of years ago for a portion of this?

General NOBLE. I believe along the East River.

Mr. HARSHA. The East River?

Mr. GURNEE. Yes. You passed a similar law. I think it was 2 years ago, covering a stretch of the East River only, which was for a development involving the United Nations.

Mr. BLATNIK. I am familiar with that.

I think that was proposed by Mr. Celler. That project is underway; is it not, it is under construction?

Mr. GURNEE. That is correct.

Mr. HARSHA. Have you encountered any problems with that to guide you in this?

General NOBLE. Not that I am familiar with, sir.

On the other hand, I believe it has acted as something to look at, to visualize what this thing could be and has sharpened up our concerns that we not drift into something we cannot live with later.

Mr. HARSHA. What is the full and complete effect of declaring this portion of the river nonnavigable?

General NOBLE. The practical effect is not much of anything at all, because these decrepit structures are out there now in the way, so no ship can go through there anyway. These structures would be removed and a new bulkhead line would be put out in the water some feet offshore, and this would be filled in.

So, frankly speaking, there would be no effect.

If one could visualize that these decrepit structures would be removed someday and without filling in, the navigable waterways could conceivably be pushed further inland than they practically are today.

But I do not know whether I have answered your question.

Mr. HARSHA. I do not think you have. Maybe I did not word it right.

What is the legal effect?

General NOBLE. The legal effect is that we would be giving up our navigation servitude.

Mr. BLATNIK. You are giving up your jurisdiction and Congress is giving up its jurisdiction to those waters?

General NOBLE. That is right.

Mr. BLATNIK. Turning them over to proper authorities, either local or governmental, city, municipal, or State?

General NOBLE. These title companies will not risk their money if there is any possibility, and it is most unlikely.

Mr. HARSHA. With the strictness of title companies and how they look upon things—

General NOBLE. The point is, practically speaking, you are not giving up anything at all; because if we permitted people to put this amount of fill in the water, there would be no practical way of applying the navigation servitude. You could not expect anybody to remove such development at a later date.

But legally the Government still retains that right, and this is enough to cause these title companies to hesitate.

Mr. HARSHA. Now you mentioned in two different instances, one between the Battery and Canal Street, there are only two piers in use, and the other between—

General NOBLE. On the East River.

Mr. HARSHA. East River, between the Battery and Brooklyn Bridge, obviously you are going to have to destroy those two existing piers or remove them?

General NOBLE. All of these would have to come out, if they carried the project the whole way. If they do not carry the project the whole way——

Mr. HARSHA. You would give up your jurisdiction?

General NOBLE. Excuse me?

Mr. HARSHA. At any rate, we have given up jurisdiction over these two piers, if the bill passes?

General NOBLE. They are not our piers anyway. They are private piers.

Mr. HARSHA. The point I was trying to get: Do we have to rebuild them somewhere else?

General NOBLE. The Government does not have to do a thing.

Mr. HARSHA. We do not have to compensate the owners of these piers?

General NOBLE. I am sure if those piers belonged to some foreign shipper or domestic shipper, part of the whole concept is to move those elsewhere. Mr. Gurnee, do you know?

Mr. GURNEE. I do not know their specific plans.

General NOBLE. These would be moved elsewhere and this land, then, would be filled in.

Mr. HARSHA. That is not at Federal expense?

General NOBLE. No, sir.

Mr. HARSHA. The new bulkheads that you refer to, who has to replace those or construct those?

General NOBLE. By that I mean we have a bulkhead line which is shoreline, and we have a pierhead line which is at the extension of these finger piers that go out, which lines are probably 1,200 feet apart. Roughly two parallel lines, one ashore, and the pierhead line. The effect is they are going to create a new shore, way out here at the pierhead line [indicating], so they will have to put bulkheads in to hold that new shore.

Mr. HARSHA. Who has to do that?

General NOBLE. They do.

Mr. HARSHA. Not at Federal expense?

General NOBLE. No. But it is of some Federal concern, because we want to make sure that this new bulkhead line, which is contiguous to one of the busiest navigation channels, does not fall in on our channel, or otherwise impede navigation.

Mr. BLATNIK. You want to see it is done properly; you want to see if any depletion or alteration or any problems or impediments to navigation——

General NOBLE. Right. I have talked to the Development people yesterday, and they promised full cooperation on that. No problem on this.

Mr. HARSHA. You mentioned that these two piers in each area involved are using foreign services. Are there any using domestic services?

General NOBLE. Not to my understanding; no, sir.

Mr. HARSHA. Now, one other statement you made that rather intrigues me. You say these comments and recommendations do not necessarily represent the views of the Department of the Army. Who do they represent?

General NOBLE. The Corps of Engineers.

Mr. HARSHA. Are you not a division of the Department of the Army?

General NOBLE. Yes; but, I do not represent the Secretary.

Mr. BLATNIK. You have to submit these up for concurrence or approval.

General NOBLE. That has not been done, sir. All I have been able to give you in the time we have is the comments of the Corps of Engineers.

Mr. HARSHA. Who all has to approve this other than the corps?

Mr. GURNEE. If the Congress passes this provision, of course, the Secretary of the Army does have the option of making recommendations to the President on whether he should sign the bill; but otherwise no one has to act on it—

Mr. HARSHA. What I am trying to get at: Usually we have Government agencies involved, things like that. We are not confronted with that situation here?

Mr. GURNEE. I do not think so; no, sir.

Mr. HARSHA. Would it be advisable to get the Secretary of the Army's comments before we enact this?

Mr. BLATNIK. Will the gentleman yield?

I will help clarify this point, if I can.

General, let me ask counsel here: I believe, as I understand it, the procedure would be, that this is legislation and this is not a rivers and harbors project. This is authorizing or enabling legislation, which would have to originate in the Congress by a Member. So the proposed language that Mr. Celler put up yesterday, and we worked that to accommodate the safeguards, include the safeguards which you suggested and others which you may have, and this will then be written in precise legal form and produced either as a bill or put into the omnibus bill as legislation.

At that point perhaps it will be possible or desirable to get comments from the Secretary of the Army. We have to do the initiating. And this is not procedural process, when any legislation goes through a committee, not when a project is approved—

Mr. HARSHA. Normally when legislation is introduced, it is referred to agencies that may or may not be involved in the legislation.

Mr. BLATNIK. That is correct.

But we will get that legislation written up and submitted and ask to get their opinions or their comments.

No further questions?

General, we thank you.

Mr. CLAUSEN. May I ask one question?

Mr. BLATNIK. Mr. Clausen.

Mr. CLAUSEN. Does this have the approval of the State of New York?

General NOBLE. Yes, sir.

Mr. CLAUSEN. And the city?

General NOBLE. They are together on this. And they are sponsoring a nonprofit organization that will do the job.

Mr. GROVER. May I ask a question, please?

Mr. BLATNIK. Mr. Grover.

Mr. GROVER. General, it is good to see you. I do know here, General, that you have pointed out that you have had some preliminary indications that you will have no problems with change of velocity and down-

river flow; but that you have not had occasion to test it completely. Is there any question you can meet the timetable of the city if this legislation passes? Is it a very extensive study?

General NOBLE. I do not think it needs to be, necessarily, sir; but this is what I hope to get into with the authority people. I hope, if this legislation passes, to have embodied in it the kind of flexibility that would be needed, so that further technical determinations during the course of the detailed planning would keep these adverse things from coming about.

Mr. GROVER. Then you would make recommendations, if you felt there would be adverse current flows or——

General NOBLE. What I would have in mind is, as they develop a new bulkhead line, we would work out together that it would be so located, and it would be so designed that it would be neither a safety threat to the channel nor would it create any adverse velocity and currents.

Mr. GROVER. You have got a rather adverse velocity in the East River right now. I do not think you could make it any worse.

General NOBLE. Yes, sir. The East River was the main concern on velocity. That is why the model test was run. It was a quick one. It is not the kind of model test that would answer things in perpetuity.

The information was available. While they did run up the velocity a little bit, it did not seem to our people in the field, on the basis of that model study, that the velocities would be brought up to an intolerable degree. So, as far as they were concerned, that model study gave a rather favorable indication.

Mr. GROVER. There is also a thrust to clean up the other side of the river, on the other side, and to clean up the Hudson River generally. And I think they will be coming to the Federal Government's assistance. We have met with the shipyard associations on that.

Mr. Harsha is asking whether there will be any expense here involved in the replacement of piers and bulkheads. You have indicated in the negative.

However, I think we should have some statement from you, General. What is this going to cost your particular Corps of Engineers with respect to the study involved here?

General NOBLE. I do not know, sir. It certainly will involve us to a degree for some time, if we are going to look over their shoulder on how they are planning these bulkheads, and if we have to concern ourselves with various aspects of the project, we will be involved in some degree. I do not know whether some of this work would be worked out so they would finance it or whether it would be our normal routine business, that it would not make any material difference. And we would go ahead and do it as we would in our normal course.

These are details I think we have to work out with them.

Mr. GROVER. If you have to find it necessary to have more extensive study model——

General NOBLE. I would think we would look to them to finance it, as we did in this small model study. They paid for it.

Mr. HARSHA. How about covering this in your amendments to the legislation?

General NOBLE. Yes, sir.

Mr. BLATNIK. No further questions. Next is H.R. 2402, Potomac River, abandoned vessels.

POTOMAC RIVER, MALLOW'S BAY—ABANDONED VESSELS

General NOBLE. Mr. Gurnee will report on that.

Mr. BLATNIK. We have a letter addressed to the chairman of the committee, the Honorable George H. Fallon, from the Bureau of the Budget—no, from the Secretary of the Army. The Bureau of the Budget advises that, from the standpoint of the administration's program, there is no objection to the presentation of this report for the consideration of the committee.

Mr. Gurnee, a brief description of this project.

STATEMENT OF MARK S. GURNEE, CHIEF OF THE OPERATIONS DIVISION, DIRECTORATE OF CIVIL WORKS, OFFICE OF THE CHIEF OF ENGINEERS, DEPARTMENT OF THE ARMY

Mr. GURNEE. Mr. Chairman and members of the committee, H.R. 2402 would authorize and direct the Secretary of the Army to remove from the Potomac River and to destroy the abandoned ships, ships' hulls, and piling located in Mallow's Bay between Sandy Point and Liverpool Point, Md., and at Wide Water, south of Quantico, Va., and any other abandoned ships formerly in these locations which have drifted from those areas. It would also authorize him to accept from the State of Maryland any contribution the State may wish to make toward such removal and destruction.

In the 1920's the Western Marine and Salvage Co. purchased 232 vessels with the intention of salvaging, dismantling, and removing all portions of the vessels which might be marketable and then destroying the remains. The salvage operations were conducted at Sandy Point Farm, a tract of land nearly surrounding Mallow's Bay. The method and scope of the operation was to remove all machinery, boilers, pipes, and engines, and to strip the vessels of all metal easily removable. The vessels were then towed to Mallow's Bay where they were burned to the water's edge and then pulled as near to the shore as possible.

Subsequently, the Court of Appeals of Maryland ruled that the vessels were abandoned. The Sandy Point Farm, a tract extending almost completely around Mallow's Bay, is presently owned by Idamont, Inc., which, it is understood, is a real estate development firm.

The Secretary of the Army's views on this bill were submitted to this committee by letter of February 9, 1968, as already noted. In his letter, the Secretary stated that since the wrecks in their present location are not considered obstructions to navigation, the Department of the Army is without authority and funds to effect their removal. However, we are maintaining careful surveillance over the derelicts to insure that they do not break away and become obstructions to navigation.

While these wrecks may possibly represent a potential source of hazard to navigation, it is considered that this hazard could be resolved at a lesser cost than by removal. The buoyancy of the hulks which

have been burned to the water's edge can be overcome by placing stone inside the hulls located on the perimeter of the Mallow's Bay area. This would ground them in position and form a bulkhead to prevent the sunken hulks inshore of this point from escaping the area.

The estimated cost of this work is \$50,000. However, it is understood that this plan does not meet with the approval of local interests or the adjacent property owner, since securing the vessels would place serious limitations on the development of the Sandy Point property and would perpetuate this unsightly nuisance. The Secretary of the Interior, at the direction of the President, is currently preparing a report and recommendations designed to make the Potomac River a model of scenic and recreational value for the entire Nation. This report will consider the scope and definition of the Federal interest in securing the removal of the abandoned ships mentioned in the bill. However, at the present time, the Federal interest in securing such removal is undefined.

If there is determined to be a sufficient Federal interest to warrant Federal support for removal of the wrecks, the Department of the Army recommends that the bill be amended to provide that local interests contribute to the extent of one-half the cost of removal since it is considered that a significant benefit would accrue to adjacent property owners. This could be accomplished by the following modifications:

(1) In line 10 of page 1, delete the period at the end of the section and add "*Provided*, That local interests shall contribute one-half of the cost of such work."

(2) Delete section 2 in its entirety.

This concludes my statement.

If the committee would like to see a picture of what these wrecks look like——

Mr. BLATNIK. I have seen them from the plane. I always wondered how they got there.

Is it true, Mr. Gurnee, that anyone who wants to can make a ship junkyard on any body of water, on the shore, similar to junkyards on land? This is a ship junkyard, is it not? They are all dumped there and abandoned.

Mr. GURNEE. Yes. At the present time there is no control that I know of over abandonment of vessels in navigable waters.

Mr. BLATNIK. Do they need any permit to junk up a body of water like that?

Would the State not have a right to protect its shoreline, or the county, private owners?

Mr. GURNEE. I am not prepared to comment on the State law.

Mr. BLATNIK. I am just interested about jurisdiction now. They owned the land, so they had a right to junk up all they wanted on their own land.

Mr. GURNEE. It is my understanding at the time, in the early 1920's, they did have use of this adjacent farm. It was under a temporary use permit of some kind.

Mr. BLATNIK. Temporary use permit for the land?

Mr. GURNEE. For the land.

Mr. HARSHA. I thought that the Western Marine and Salvage Co. sold the Sandy Point Farm where this was in 1932.

Mr. GURNEE. That could be, sir.

Mr. HARSHA. This was done after they sold the farm?

Mr. GURNEE. No. The salvage operations were conducted prior to, during the 1920's.

Mr. HARSHA. Sometime they must have had title to the land. I notice in the Secretary of the Army's letter that is pointed out.

Mr. GURNEE. That is correct, sir.

Mr. BLATNIK. There are two methods then of dealing with this problem. One is to remove them completely, at a greater expense; is that not true?

Mr. GURNEE. Yes. The estimate of anchoring the vessels, as I noted, was \$50,000. We have not made a firm estimate of the cost of the removal of all of these wrecks. We think that it will cost approximately \$2,000 per vessel, and there are various estimates on the number of them that would have to be removed. There are approximately 150 of them. They are wooden vessels, between 100 and 150 feet long on the average, with about a 30-foot beam; and they are in a badly deteriorated condition, as you can see from this photo.

Mr. BLATNIK. They are all wooden vessels?

Mr. GURNEE. They are wooden vessels.

Mr. BLATNIK. Any possibility of having them decay, disintegrate by themselves for over a period of time?

Mr. GURNEE. As long as they remain underwater or partially submerged, that does not happen.

Mr. BLATNIK. It sure happens in my house.

General NOBLE. It is the periodic inundation that deteriorates wood, sir. If you keep wood completely under water, it does not oxidize.

Mr. BLATNIK. You state that: "However, at the present time, the Federal interest in securing such removal is undefined."

Would that be up to the committee here to define this interest?

Mr. GURNEE. The bill would do that.

Mr. BLATNIK. The bill proposes we make a declaration of Federal interest in this concern. I understand you propose an amendment that half the cost would be borne by local interests, whoever they may be, be they county or municipal subdivision, township, city, village, or private owners; is that correct?

Mr. GURNEE. Yes, sir.

Mr. BLATNIK. And that the Federal Government would not be obligated for its 50-percent share of the cost of removal until the proper local interest made a firm commitment to contribute the other 50 percent, is that correct?

Mr. GURNEE. If the proposed amendment were adopted; yes, sir.

Mr. BLATNIK. What is the recommendation of the Corps of Engineers on this proposal?

Mr. GURNEE. We generally favor the cleaning up of shoreline, both for esthetic reasons and for the elimination of floating debris. These vessels do constitute a potential source of some floating debris, for which we have a project responsibility for removal from the navigable waters.

Mr. BLATNIK. When you remove debris, it is essentially for the purposes of removing any danger of obstruction to navigation; you also remove debris along the shoreline or outer edge, just for esthetic value or appearances?

Mr. GURNEE. We do not normally do that now, sir.

Mr. BLATNIK. Mr. Harsha.

Mr. HARSHA. I either misunderstood you or there is a conflicting previous statement you made. You said the Army is without authority or funds to effect their removal.

Mr. GURNEE. That is correct; as long as we make the determination that these vessels in their present location are not obstructive to navigation.

Mr. HARSHA. Have you not made that determination?

Mr. GURNEE. We have made the determination that these vessels in their present location are not obstructive to navigation.

Mr. HARSHA. You have made that determination now?

Mr. GURNEE. That is correct.

Mr. HARSHA. Under that determination, you are without authority and without funds to remove them?

Mr. GURNEE. That is correct, sir.

Mr. HARSHA. How do you arrive at this formula of 50/50, when the navigation prospects of the river are not going to be impeded?

Mr. GURNEE. The purpose of this legislation, of course, is not necessarily to improve the navigation of the present stream; it is to remove the unsightly remains of the wrecks as they now exist. As we stated, we think there should be a contribution by some local interest on the grounds that there is a substantial benefit to the land.

Mr. HARSHA. That does not benefit the Federal Government or benefit the general public; that would benefit the developer.

Mr. GURNEE. But the removal of these wrecks would extend the usefulness of the bay for small watercraft.

General NOBLE. There are two things. I can understand your question, sir. We are really in a gray area. The navigable waters of the United States are more extensive than the channel. And so one might consider that, while these things are not obstructing current navigation, they are still in the navigable waterways of the United States. So it is in this area of general imprecision that one can raise all kinds of questions.

This law would serve to clear up this kind of question.

Mr. HARSHA. Should a law be passed before the Department of Interior concludes its study and recommendations?

General NOBLE. Should it be?

Mr. HARSHA. Yes.

General NOBLE. We think it should, sir. However, that that study is underway we feel is pertinent to the committee's determination on this.

Mr. HARSHA. From the looks of that picture, it looks like the land immediately adjacent to these bulkheads or these boats is marshland.

General NOBLE. I am not familiar with it, sir.

Mr. GURNEE. I have not see the land, on the ground, but from the chart that I have I believe that this is not marshland, except for a very marginal strip.

Mr. HARSHA. I just wondered how it could be useful. It looks like, to me, without filling it in or—

Mr. GURNEE. I think the area to which you referred may be the wrecks themselves. This partial water area here, where you see brush growing, that brush is growing right in the wrecks. Those are the

wrecks that you see, which I believe you interpreted as being marsh areas.

Mr. HARSHA. What would you remove, then, the trees and the brush, too?

Mr. GURNEE. Yes. We would remove the wooden portion of the vessels down to the natural bottom of the stream.

Mr. HARSHA. You said that you believe there should be some contribution. You have not explained to me fully how you arrived at 50/50 contribution.

Mr. GURNEE. That is an arbitrary determination, Mr. Harsha.

Mr. GROVER. Mr. Gurnee, is there any precedent for the Corps of Engineers going into beautification activities, if I may use that term?

Mr. GURNEE. Not in specific legislation that I recall. But we do, of course, consider beautification in connection with our normal project design and construction.

Mr. GROVER. As I understand it, we do not have a specific hazard here, except that a potential debris of flotsam and jetsam drift possibility, which seems to be fairly remote. And not having the ultimate objective of improving the navigability and removing hazards, the primary objective here seems to be one of scenic and recreational.

I was just wondering whether the appropriate forum would be the Interior Committee and the petitioner, the Interior Committee, with complementary thought or supplementary thought or activity up at Interior, should they have approval of reclaiming this area for scenic recreation purposes?

In other words, with all due respect, I am wondering whether we are putting the cart before the horse, as Mr. Harsha says.

Mr. GURNEE. Of course the reference of these bills to committees is done in-house over here. I would think that one thing that might have influenced the assignment is the fact that this is the type of work that the corps normally engages in, rather than some other agency of government.

Mr. GROVER. Living on the great South Bay, Long Island, Empire State, I know a lot of areas in our navigable waters and our bay of some 80 miles long, which have the intrusion of old pilings and old barges, where the adjacent landowners might very happily go into a 50-to-50 removal proposition. I am just wondering whether you are establishing a precedent without the prior prerequisite of the Interior Department's report and their intentions of reclaiming for that purpose.

General NOBLE. I would think the nearest precedent is the precedent of the abandoned ship. We have a multiple abandonment of ships involved here.

In the case of an abandoned ship, the corps does and has authority and responsibility to move in there and remove the wreckage from the navigable waterways.

And on that point of view, one could argue that the corps should have already moved in a long time ago and removed every one of these vessels at total Government expense. But that is only one point of view.

Mr. HARSHA. Would the gentleman yield?

Mr. GROVER. Yes.

Mr. HARSHA. On that point you are trying to make, you have authority to remove an abandoned ship in navigable waters if they are interfering or impeding navigation; is that not true?

Mr. GURNEE. That is correct, sir, yes. If they are obstructive to navigation, yes.

Mr. HARSHA. Now, one other point, that is that you are talking about an abandoned ship, when this thing was abandoned it was nothing more than a hulk, at best, was it? You could hardly classify it as a ship.

General NOBLE. These are the subtle differences involved here, that caused us to make the recommendation that we are making here.

Mr. HARSHA. One other thing I wanted to call your attention to: the bill makes no provision for an authorization of funds. It is completely blank in that respect. It just authorizes and directs you to remove them.

That seems to be an objectionable point to me.

And one other point, on line 9 it says, 8 and 9, you can remove any other abandoned ships formerly among those in Mallow's Bay or tide-water which has drifted from these locations.

Have there in fact been any displacement from these locations or driftings?

Mr. GURNEE. Yes, there have. As you will note, the original location of these hulks was in Mallow's Bay. The bill does provide for the removal of those abandoned ships which have drifted into the tide-water area. There is an extensive area on the Quantico side of the river, extending 2 or 3 miles along the shore, where the navigation charts show scattered wrecks located on the opposite side of the river from Mallow's Bay, and this bill does cover those areas.

Mr. HARSHA. Have you removed any of those ships?

Mr. GURNEE. We have not.

Mr. HARSHA. Do you have authority to remove any of those?

Mr. GURNEE. That particular area is also outside of the navigation channel and we probably, if asked, would make the same finding that we have in Mallow's Bay with respect to navigability.

Mr. HARSHA. According to your best estimates—and further provided that there is no more than 150 ships, runs somewhere in the neighborhood of \$300,000.

Mr. GURNEE. That is our present estimate.

Mr. HARSHA. Thank you.

Mr. BLATNIK. Let us proceed to the Atlantic divisions, Miami Harbor, Fla.

MIAMI HARBOR, FLA.

STATEMENT OF COL. RICHARD L. SEIDEL, ASSISTANT DIRECTOR OF CIVIL WORKS FOR ATLANTIC DIVISIONS, CORPS OF ENGINEERS, DEPARTMENT OF THE ARMY

Colonel SEIDEL. Mr. Chairman and members of the committee, this report concerns improvement of Miami Harbor in the interest of commercial navigation.

The existing Federal project provides for 30-foot-deep channels and turning basins for deep-draft general cargo vessels, cruise ships, and tankers.

The Chief of Engineers in his proposed report recommends deepening the entrance channels to 38 feet, and the other channels and turning basins to 36 feet, and widening the entrance channel to 500 feet. This would permit use of the harbor by fully loaded deep-draft cargo vessels and by the larger cruise vessels. Total cost is estimated at \$7,265,000, of which \$6,476,000 would be Federal. The benefit-cost ratio is 1.5.

Local interests are willing to provide the necessary items of local cooperation. The State and Federal agencies favor the project. The report is with the Secretary of the Army for transmittal to the Bureau of the Budget for clearance as to its relationship to the program of the President prior to its submission to Congress by the Secretary of the Army.

Mr. Chairman, this completes my statement.

Mr. BLATNIK. Yesterday we heard witnesses on this project. Do you recall their testimony, Colonel, about what the improvements—with the harbor or Dade County, I forget what governmental unit—what improvements are they prepared to make and will make if they get a deepening of this harbor? Was it primarily the fact that the commerce was growing so rapidly, the ships were getting larger, they needed this increase in depth from 38 feet—what is the channel foot depth now?

Colonel SEIDEL. Thirty feet.

Mr. BLATNIK. So 38 feet was on the approach and 36 feet would be the remaining. Do you recall the testimony they had about facilities they would be able to build?

Colonel SEIDEL. Yes, sir. What is happening there is at the head of the channel is the present terminal; and this is outdated, obsolete, and they are replacing this or transferring this to a new terminal on Dodge Island, as well as a new cargo facility on Fisher Island.

Mr. BLATNIK. New terminal on Dodge Island and Fisher Island?

Colonel SEIDEL. Yes, sir.

Mr. BLATNIK. What is the cost estimate?

Colonel SEIDEL. Sir, I do not recall.

Mr. ROBERTS. I believe they passed a \$25 million bond issue.

Mr. BLATNIK. They have passed a bond issue, had or were thinking of it. There are several agencies to hear from on this. No comments from the Bureau of the Budget.

Mr. Harsha?

Mr. HARSHA. Colonel, the non-Federal cost in this, of \$789,000, what does that consist of?

Colonel SEIDEL. I could not hear you.

Mr. HARSHA. The non-Federal cost of \$789,000, what does that consist of? Purchase of land and easements, rights-of-way; is that it?

Colonel SEIDEL. Sir, the non-Federal portion is made up of a cash contribution of \$579,000, for land enhancement from placement of dredging material and they will provide spoil areas, diking, and relocation at an estimated cost of \$210,000.

Mr. HARSHA. Do you have any objection, is there any objection to this, that you know of?

Colonel SEIDEL. No, sir. The only reason the report is not further along is that we have just received the comments from the agencies yesterday.

Mr. HARSHA. Do you have those?

Colonel SEIDEL. Yes, sir.

Mr. HARSHA. Can you advise the committee what the comments are?

Colonel SEIDEL. They were all favorable, sir.

Mr. HARSHA. Has that been received from all of the agencies?

Colonel SEIDEL. Yes, sir, from the Departments of the Interior, Health, Education and Welfare, and Transportation, and we previously had the State of Florida. They are all favorable, sir.

Mr. HARSHA. How about BOB?

Colonel SEIDEL. It is on its way to the Bureau of the Budget from the Secretary of the Army.

Mr. BLATNIK. I have information here on testimony from the Florida Board of Conservation, and their testimony is in the booklet which they submitted. It says that Metropolitan Dade County has underway a \$23 million improvement program for the Miami Corps. They are providing modern passenger channels, and so on.

Apparently this is well underway, as they conclude with this statement: "The last contract of this \$23 million program will be completed this year," so apparently the \$23 million program will be completed.

So, with that initiative on local participation, this is a very encouraging project if the processing can be made.

Next will be the Gulf Intracoastal Waterway, St. Marks to Tampa Bay, Fla.

GULF INTRACOASTAL WATERWAY, ST. MARKS TO TAMPA BAY, FLA.

Colonel SEIDEL. Mr. Chairman and members of the committee—

Mr. HARSHA. May I interrupt you a minute? I notice we have the same problem with the agencies here. Are there reports in on this, too?

Colonel SEIDEL. No, sir. The only thing I have here is from the State of Florida.

Mr. HARSHA. Were they requested about the same time as the Miami Harbor?

Colonel SEIDEL. Yes, sir. They would be due in, if they took the full 90 days, on September 15, sir.

Mr. HARSHA. I wonder, Mr. Chairman, if it is possible if we could enter executive session on these bills, to call the agencies in for their comments?

Mr. BLATNIK. We do not normally call them in. In many cases it is just a phone call. For example, Education and Welfare, they might be concerned with some pollution aspects of it, rather a routine matter.

It depends how important their interest is for a project. If it is necessary, we will certainly call in, for instance, the Department of Transportation.

Mr. HARSHA. I notice all the members of Florida yesterday were trying to expedite these. They apparently succeeded with the Miami Harbor.

Mr. BLATNIK. The benefit-cost ratio appears good, 1.7 to 1. The estimated non-Federal cost seems considerable, it is \$14,450,000. That is local participation.

Can you give us some idea what form or what will be the local contribution? It is along the waterway, along the canal.

Colonel SEIDEL. Sir, they will make a cash contribution as part of the dredging which would amount to \$5,570,000, bridge modification of \$130,000 and for lands and relocations the sum of \$7,580,000, for a total of \$14,450,000.

Mr. BLATNIK. Made by whom?

Colonel SEIDEL. Local interests, sir.

Mr. BLATNIK. Are those navigational people, are they counties, is it the State?

Colonel SEIDEL. The sponsor, sir, is the Florida State Board of Conservation.

Mr. HARSHA. Colonel, this project is to construct a missing link, so to speak?

Colonel SEIDEL. Yes, sir. It was referred to yesterday by the State officials as the missing-link project.

Mr. BLATNIK. We have a breakdown here, and we will pursue it further.

If there are no further requests on this project, we will go on to the next one.

Mr. HARSHA. Why do we not instruct the staff to call these agencies for the reports on this?

Mr. BLATNIK. The staff has been on it, I know, and will continue.

Colonel SEIDEL. Mr. Harsha, Congressman Sikes had made arrangements to call the agencies this morning.

Mr. BLATNIK. Mobile Harbor, Ala.

As I recall, this was Congressman Jack Edwards. The project seems to be a good project, except, I believe its status right now is—what is its status, Colonel? Would you proceed?

Colonel SEIDEL. Sir, this is a study that is still being conducted by the District Engineer on Mobile Harbor. In order to accommodate deep-draft vessel traffic to a proposed industrial park at Theodore Terminal, the District Engineer is considering a branch channel, a turning basin, and anchorage area, all of 40-foot depth. He estimates the cost of the project at this time to be \$26.5 million, of which \$11.3 million would be Federal. The benefit-cost ratio is estimated to be substantially in excess of unity. Mr. Chairman, this completes my statement.

Mr. BLATNIK. You indicated benefit-cost ratio is substantially in excess of unity. The project has all indications of being a very sound and justifiable project.

The local participation, local interest, they are moving ahead.

Can you give us any estimate, Colonel, in terms of months, from the work that is underway—there does not seem to be undue problems. There is no undue controversy as to local—there is unity of support locally. There are no technical or engineering problems to it.

Colonel SEIDEL. The work of completing the report.

Mr. BLATNIK. Would this be ready by next year?

What I am trying to say is: If you get some time element, some indication that the Corps of Engineers is very favorable, most certainly the committee, on the basis of the amendments before it thus far and as continuing engineering surveys continue, after fiscal detail are available we will have a better idea; but we would like to continue to encourage the local industry corporation, or whatever they call it, to

continue their drive for industry. They are apparently doing a good job in an area of great importance.

If we could tell them your project seems to be very positive in many aspects of this early stage for processing, however it must go through all the channels, as every other project, and we estimate it would take about 6 months, 8 months—

General NOBLE. About 6 months.

Mr. BLATNIK. About 6 months. We are sort of encouraging a favorable report to make to the persons involved without prejudicing the project whatsoever.

SABINE RIVER BASIN COMPREHENSIVE STUDY

We will take up next the Sabine River comprehensive basin survey report for the Sabine River and tributaries, Texas.

Mr. Roberts has his material ready. Colonel Shaffer, I believe you are in charge of that.

Mr. Roberts, would you open up?

Mr. ROBERTS. This will be a dual-purpose project. It would provide ultimate navigation to Longview. I just passed out some newspapers showing the third flood in the last 2 years. The Corps of Engineers has just completed a comprehensive survey, Mr. Chairman. It has been referred to the agencies, but no action has been taken, and none can be taken shortly.

We have lost 15 lives and over \$50 million worth of property damage. The dual-purpose project, the navigation channel, will also take the water away and solve most problems temporarily. So I appreciate having the chance to have the corps testify and know what their plans are and what we can do to expedite the decisions.

Mr. BLATNIK. Congressman, I notice from the very impressive half-page of the newspaper, a photograph that you put before the committee, this is dated as recently as last May 24.

Mr. ROBERTS. Just a month ago was the third one. We have had three major floods in 2 years. We have lost a total of \$50 million and 15 lives.

General will you tell them basically what the study has done and what we can do that would be helpful to try to expedite this project to at least get some relief?

General NOBLE. Colonel Shaffer has a statement to make on it, sir.

STATEMENT OF LT. COL. GEORGE B. SHAFFER, ASSISTANT DIRECTOR OF CIVIL WORKS FOR PLAINS DIVISION, OFFICE CHIEF OF ENGINEERS, WASHINGTON, D.C.

Colonel SHAFFER. Mr. Chairman and members of the committee, the Sabine River Basin comprehensive study was initiated in 1962 as one of the 16 individual river basin studies, type 2, included in the program undertaken by the ad hoc Water Resources Council to meet the goal of having comprehensive studies for the major basins of the country by 1970. This study was a cooperative effort of Federal agencies and the States of Louisiana and Texas, accomplished under the general guidance of the ad hoc Sabine Basin Coordinating Committee.

The coordinating committee was composed of representatives of the U.S. Departments of Agriculture, Army, Commerce, Health, Education, and Welfare, and Interior; the Federal Power Commission; and the States of Louisiana and Texas.

On December 15, 1967, the Sabine Coordinating Committee at its 11th meeting held in Orange, Tex., accepted and attached its signatures to the report, and on December 22, 1967, the report was forwarded to the Water Resources Council.

The Water Resources Council reviewed the study and prepared a summary report and returned comments on the report to the Sabine Basin Coordinating Committee for consideration on May 13, 1968. Comments are due back to the Water Resources Council July 1, 1968.

Subsequent to approval, the Corps of Engineers will prepare a report on their elements in the comprehensive study and will submit the project report through normal channels for authorization.

Mr. Chairman, this concludes my statement.

Mr. BLATNIK. Thank you, Colonel Seidel. I apologize for calling you, springing this without any advance warning and on such short notice. But to a member of the committee, it is a serious problem, and we do appreciate your accommodating us on almost no notice at all. The Water Resources Council has reviewed the study?

Colonel SHAFFER. Yes, sir.

Mr. BLATNIK. What is the next step after the Water Resources Council reviews the study and prepares the summary report? What happens?

Colonel SHAFFER. Well, comments were sent back to them for—

Mr. BLATNIK. To the coordinating committee?

Colonel SHAFFER. To the coordinating committee?

Mr. BLATNIK. Has any action been taken by the coordinating committee?

Colonel SHAFFER. The response is due back on July 1, 1968.

Mr. BLATNIK. Yes; you stated that; I am sorry.

After that, then the Corps of Engineers goes to work with more detailed study or analysis, whatever you call it?

Colonel SHAFFER. Yes, sir. Subsequent to the approval of the comprehensive plan, the corps will then pick out its portion of it and develop the project or projects.

Mr. BLATNIK. Project or project approach to fit within the whole comprehensive program; is that right?

Colonel SHAFFER. Yes, sir.

Mr. ROBERTS. If I understand it, then, what will the corps do when the comprehensive report is approved? You will submit for authorization specific projects?

Colonel SHAFFER. Yes, sir.

Mr. ROBERTS. What do we need to do to keep this thing alive in the meantime, while we are waiting on this? Do you need additional funds for survey projects, or additional work, engineering or other things? Otherwise your omnibus bill is not going to have a Sabine River in it at all.

What does the corps need to expedite your section, your part of this project?

General NOBLE. Mr. Feil, Chief of our Planning Division, is prepared to discuss that.

**STATEMENT OF GEORGE FEIL, CHIEF, PLANNING DIVISION, CIVIL
WORKS DIRECTORATE, OFFICE, CHIEF OF ENGINEERS**

MR. FEIL. Mr. Roberts, sir, I think that we have the funds to finish the summary report. We will need no more funds for that, and I expect that when the coordinating committee completes their summarizing reports, which should be rather shortly, sometime this fall, several more months would be required for the corps to present its recommendations for construction of the projects in the Sabine. Additional funds may be required for the authorizing report.

MR. ROBERTS. Thank you, sir.

MR. Chairman, I would like to say again that we have had three major floods now in 2 years, in addition to the other work, 15 lives have been lost, more than \$50 million property damage.

MR. Howard Boswell, from the Governor's office, is here and I will ask him to stand up. (Mr. Boswell stood up.)

This is a vital project to our country, both from a navigation standpoint and flood control.

MR. BLATNIK. It is an urgent and important project.

MR. Boswell, do you have any comments? You were here yesterday. You have heard the Corps of Engineers, and this will be moving in regular order.

MR. BOSWELL. The Congressman is eminently correct in his statement of the need.

MR. BLATNIK. Thank you, Mr. Boswell.

MR. CLAUSEN. Mr. Roberts, is this similar to the type of problem that we had in and around the area represented by Congressman de la Garza, or is this strictly precipitation, and has nothing to do with hurricanes?

MR. ROBERTS. Strictly precipitation and lack of control of tributaries of Sabine. It carries a tremendous amount of very excellent quality water, and I believe it is the largest river in the country now that has no control over it. It runs wild, and it eventually reaches the gulf.

We have three projects: project to save the water; another for navigation all the way to the gulf, to Longview; and then flood control from Longview up to the mouth of the river, which is at Greenville.

MR. CLAUSEN. Is the type of terrain in that area very similar to that which we saw in the southwest Texas area?

What I am saying is, it was very difficult to acquire anything in the way of a rapid runoff.

MR. ROBERTS. No, it is not as flat as that. It is gently rolling, and it is basically timberland, with an industrial city moved into—the picture here is near Longview, Tex., which is an industrial city of 55,000, and that big plant out there is Texas Eastman Corp., under water.

MR. CLAUSEN. And you feel the article in the Longview Morning Journal, of May 24, 1968, along with the picture, pretty accurately describes the situation and might be well to at least place this in the file for future reference, if the gentleman thinks it might be appropriate.

MR. ROBERTS. I would appreciate it. I might say that this is 8 hours after the major flood tide passed, by the way.

MR. CLAUSEN. Mr. Chairman, I would then ask unanimous consent that the picture and the article in the Longview Morning Journal,

of May 24, 1968, which I think very accurately describes the problem, be placed in the file and referred in the report as part of the committee's consideration.

Mr. BLATNIK. Without objection, so ordered.

(Article in Longview Morning Journal, May 24, 1968, placed in file of the committee.)

Mr. ROBERTS. Thank you.

Mr. BLATNIK. Thank you very much, Colonel.

Can we get back to the first page on your statement, Colonel Hall? We will start with the Atchafalaya River and Bayous Chene, Boeuf and Black, La.

ATCHAFALAYA RIVER, BAYOUS CHENE, BOEUF, AND BLACK, LA.

Mr. BLATNIK. Please proceed, Colonel. Give us a quick rundown on this project, sir. There is no particular controversy, as I recall; am I correct on that?

STATEMENT OF LT. COL. DANIEL D. HALL, ASSISTANT DIRECTOR OF CIVIL WORKS FOR THE MISSISSIPPI VALLEY, OFFICE, CHIEF OF ENGINEERS, WASHINGTON, D.C.

Colonel HALL. It is not controversial, Mr. Chairman. It is a good project. It has a favorable B-C ratio, local cooperation and assurances have been forthcoming. It has favorable comments from the Federal agencies and the Bureau of the Budget. Its B-C ratio is 1.2.

Total estimated cost is \$9,526,000, sir.

I would like to say that the Secretary of the Army on this project states that since the Federal cost is less than \$10 million, the views set forth in his letter of January 6, 1967, submitting a draft bill, to amend section 201 of the Flood Control Act of 1965 would apply.

I would be happy to go into any details the chairman desires. It was adequately described yesterday by Mr. Willis.

Mr. BLATNIK. The Bureau of the Budget has no objection.

Any questions?

Mr. HARSHA. This thing has been a little different than the ordinary project, Colonel. Correct me if I am wrong. Is it the practice for the corps to do this sort of thing for the purposes of drilling rigs? I notice in your benefits you have to \$888,000 savings to drilling rigs. Is this for navigation purposes or to expedite the drilling of oil?

Colonel HALL. This is for navigation purposes, sir.

Mr. HARSHA. What is covered by the savings in the drilling rigs? And also, are they the fixed installations or are they floating ships or floating equipment?

Colonel HALL. Transportation savings, sir.

These are floating rigs that move from the shipyards to the gulf. They come back to the shipyards on Bayous Black and Chene for maintenance and are actually constructed in the inland system.

And it is transportation savings to reach the gulf, among other things.

Mr. HARSHA. The division between Federal and non-Federal follows the usual order?

Colonel HALL. That is correct, sir.

Mr. HARSHA. That is all I have.

Mr. BLATNIK. No questions.

Can we move on to the next one: Ouachita and Black Rivers. You are in opposition to that?

OUACHITA AND BLACK RIVERS, ARK.

Colonel HALL. I have a detailed statement, Mr. Chairman. (Statement follows:)

STATEMENT RE OUACHITA-BLACK RIVER NAVIGATION

Mr. Chairman and members of the committee. The River and Harbor Act of 1950 authorized modification of an existing 6½-foot depth navigation project to provide an all year channel 9 feet deep and 100 feet wide from the mouth of the Black River to Camden, Arkansas. Disregarding specific features, the depth of channel was to be obtained primarily by lowering the floors and sills of six existing locks and by deeper channel dredging without affecting existing water surface elevations.

Prior to starting construction, further investigation indicated alternative means might result in an overall more economical project. In addition, construction of the earlier plan would require prolonged closure of the stream to navigation and this was objectionable to local interests. A subsequent report to the Congress compared several alternative plans to provide the same channel dimensions and the Chief of Engineers recommended that the overall most economical plan be followed. The River and Harbor Act of 1960 authorized these recommended further modifications. Disregarding specific features, the new plan provides for a substitute system of four locks and dams in lieu of the existing six locks and dams. The increased navigation depths would be obtained primarily by raising existing water surfaces rather than extensive deeper dredging.

The report (S. Doc. 112, 86th Cong.) recognized that comparatively low stream banks in the Felsenthal reach would result in a considerable land requirement if the water surface were raised in this reach. Specific economic comparison with a deeper dredging alternative showed a raised water surface in the Felsenthal pool to be more favorable. The plan as authorized by the Congress requires that all necessary lands, including the lands for the Felsenthal pool, are to be furnished by local interests. Where the existing Lock and Dam No. 6 provided a water surface at elevation 61.6 feet, the substitute Felsenthal pool would be at elevation 65.0 feet.

Local interests supported the changes of the 1960 authorization and furnished the necessary assurances of local cooperation. Construction began along the downstream Louisiana reaches, including Jonesville and Columbia Locks and Dams. During 1964 preconstruction planning of the Felsenthal Lock and Dam, local interests requested modification of this feature to provide a 5-foot seasonally higher pool for fish and wildlife purposes and offered to furnish any additional lands at no cost to the United States. Under the general authority of the Fish and Wildlife Coordination Act, the Chief of Engineers approved modification of project structures and their operation at Felsenthal Lock and Dam to provide this seasonal fish and wildlife pool at an estimated additional Federal construction cost of \$1,590,000 (including \$250,000 for additional recreational facilities associated with this pool) provided the necessary additional land requirements were furnished without cost to the United States. Detailed preconstruction planning proceeded until lands were needed to begin construction at Felsenthal, at which time local interests indicated difficulties in fulfilling their previous assurances.

Construction is continuing along the downstream project reach where Louisiana local interests are furnishing the required local cooperation, including lands necessary for navigation. Construction has not begun along the upstream project reach within Arkansas, and these local interests have sought relief from the requirement to furnish lands. They have been informed that the such relief would violate authorized project requirements, would exceed general discretionary authorities of the Chief of Engineers, and could only be granted by the Congress.

Alternative plans for the Felsenthal pool have again been reviewed. Plans with pool elevations at and between the elevations 61.6 and 65.0 feet were compared on the basis of estimated total annual charges, and annual navigation and fish and wildlife benefits. This review confirmed that the 65.0 foot elevation Felsenthal pool provides the economically most favorable development of the reach for the concurrent purposes of navigation and fish and wildlife. Furthermore, the addition of a seasonally higher pool solely for fish and wildlife purposes provides an even more favorable overall plan of development.

Longstanding current policy regarding Federal navigation improvements includes the requirement that local interests furnish all necessary project lands. Unusual circumstances may justify limited or broad deviation from this requirement on a particular project; however, such deviation was neither proposed nor authorized at this project. We feel that the existing requirements of local cooperation for all aspects of the project are proper and that the relief sought is not warranted. When considering the Ouachita-Black River project in the 1960 report, the relatively large increased land requirement in the Felsenthal reach was specifically considered and apparently adjudged either insufficiently unusual or sufficiently offset by resultant benefits, or both, such that reporting officers did not recommend and the Congress did not authorize a deviation from this general requirement.

With regard to additional lands required for the 5-foot seasonally higher fish and wildlife pool, the Fish and Wildlife Coordination Act requires specific approval of the Congress prior to the project acquisition of any additional lands solely for fish and wildlife purposes. This has been interpreted in the Felsenthal situation not to prohibit the acceptance of lands at no cost to the United States. In view of the considerable additional Federal cost for the modification of project structures and provision of additional basic recreation facilities, the furnishing of these additional lands by local interests does not appear inequitable.

In the State of Arkansas, local sponsoring bodies are the respective counties. Local interests supported the changes proposed in the 1960 authorization and stated they were willing to provide the assurances. These assurances from the County Judges of Ashley, Bradley, Calhoun and Union Counties, Arkansas, were furnished in 1962. Also, I might add that a subsequent letter from the Attorney General's Office in June of that same year, giving his opinion that the counties may legally execute these assurances, is a matter of record.

The five-foot seasonally higher fish and wildlife pool was added pursuant to desires of local interest in accordance with established policies and authorities available to the Chief of Engineers. In August of 1966, Acts of Assurances to include this features were requested from the respective counties. That same month, the respective counties advised the Vicksburg District Engineer that they were unable to comply with the request for the additional assurances—therefore, planning on the Ouachita River Navigation Project within Arkansas was discontinued—however, that portion within Louisiana is continuing under construction.

In summary, Mr. Chairman, we see no reason to change the requirements of local cooperation for the Ouachita River Navigation Project in preferential treatment of any reach. Further, the requirements of local cooperation for this project are in accord with longstanding policy regarding Federal navigation projects and in our view should remain so.

Mr. Chairman, this concludes my statement.

MR. BLATNIK. Can you brief it as this point?

Colonel HALL. Yes, sir. The problem at hand with respect to the Felsenthal lock and dam relates to the items of local cooperation on the Felsenthal lock and dam. Local cooperation is required by the act authorizing the channel on the Ouachita-Black River system, which requires that local interests provide land, easements, rights-of-way, among other conditions of local cooperation.

The local cooperation requirements in the Louisiana portion of the project have been furnished. Local cooperation in the Felsenthal reach has not, due to the alleged inability of local interests to come forth with it. We think that the local cooperation requirements are proper, in accord with the established policy for navigation projects and think that the conditions of local cooperation should remain.

Mr. BLATNIK. You are generally in opposition to the modification of this project, is that right?

Colonel HALL. That is correct.

Mr. BLATNIK. What would be the reason again?

Colonel HALL. The reason we are in opposition to this is because the items of local cooperation for this project are in accord with established policy for navigation projects, and we see no reason, really, for preferential treatment of any reach of the system.

Mr. BLATNIK. On the grounds, therefore, that the local interests are unable or unwilling to contribute the local share; is that it?

Colonel HALL. The local interests have not furnished the necessary assurances for the Felsenthal pool, which is one of four locks and dams on this navigation system.

Mr. BLATNIK. Any questions?

Mr. HARSHA. You are in opposition to this project, then, as I understand it?

Colonel HALL. No, sir. We are not in opposition to the project. We think it is a very good project, but we do not feel that the local cooperation requirements should be amended for any reach in preferential treatment to—

Mr. BLATNIK. Are local interests unwilling or unable to comply with the requirements for local cooperation?

Colonel HALL. They say they are unable, sir.

General NOBLE. This is really a matter for the committee to decide. This is a good project. The local interests have stated that for several reasons they have been unable to come up with this locally and ask for relief.

From our standpoint, we see no reason why we should have a different requirement for local cooperation of this group rather than another.

But it is really up to the committee to decide whether their inability to come up with this cooperation—

Mr. BLATNIK. We will review that on the staff level further.

General NOBLE. There is no question about the project. It is a good one.

Mr. CLAUSEN. This question of being unable to meet the local sponsorship requirements, now this, of course, would certainly need some review, because we find that this is quite a natural position that some people would take. And I am afraid if we ever established a precedent here of authorizing a project without a clear demonstration, just strictly inability to provide local responsibility requirements, to me would not be enough. I think you are setting up a pretty dangerous precedent here.

Have you had a change to review the situation to determine whether they really have the ability to meet these requirements or not?

Colonel HALL. Sir, when the project was authorized, and while being considered by the Congress in 1960, local interests did indicate their willingness to come forth with all the stated requirements of local cooperation.

In fact, subsequent to that they furnished acts of assurances for this purpose.

Now, subsequent to the authorization in 1960, the local interests requested consideration of increasing the elevation of this particular

pool for seasonal fish and wildlife purposes. This problem really was identified pointedly when the revised assurances were requested for the additional acreage required for the seasonal fish and wildlife pool, at which time they said that they could not come forth with the assurances, that they were financially unable to do so.

The assuring bodies within this portion, within Arkansas, are the respective counties, as opposed to, in other States, for example, in Louisiana, assured by the State department of public works.

Mr. CLAUSEN. In your judgment, based upon the review of the situation, do you feel that they can or cannot meet what would be considered to be parallel local sponsorship requirements as we consider other projects?

Colonel HALL. In discussion with respect to the acts of assurances, they say that they are unable financially to meet this obligation.

Mr. CLAUSEN. What proof is there of this? That is the normal thing.

General NOBLE. We do not have any proof of it, sir. We are unable to defend before you today a basis for an exception. This is why we have stated, from our standpoint we do not see a valid basis for our exception.

Louisiana has provided its assurances in this project and Arkansas has not been able to come up with it.

Mr. CLAUSEN. I think you have answered my question.

Mr. HARSHA. Do we have a worksheet, summary sheet, like we have on some of these others?

Mr. CRAMER. Some modifications.

As I understand, this is modification of existing projects, that they are existing for; right?

Colonel HALL. That is correct.

Mr. CRAMER. They want to change local cooperation requirements relating to what, to the Felsenthal pool acquisition of right-of-right by the local interests?

Colonel HALL. Yes. The construction is proceeding at the present time on the two-lock-and-dam features to achieve the 9-foot channel within the lower reaches of the stream. No construction has been accomplished in Arkansas due to the lack of assurance being furnished as required by the authorizing act.

Mr. CRAMER. Do you have an estimate of what the local cost for acquisition of this land for the pool might be?

Colonel HALL. Yes, sir. It is about \$1,880,000.

Mr. CRAMER. And Federal cost for the pool is \$1.5 million, including \$250,000 for recreational; right?

Colonel HALL. No, sir. \$1.5 million was modification to the Felsenthal structure to accommodate the seasonal fish and wildlife pool. Total cost of Felsenthal lock and dam was about \$30 million.

Mr. CRAMER. This pool is strictly for fish and wildlife recreation, is that right?

Colonel HALL. No, sir, it is a combination—if I could speak to illustrations: There is a 65-foot elevation, navigational pool, navigational feature of the project, and raising this 5 feet for seasonal fish and wildlife pool brings it up to 70 feet.

Mr. CRAMER. It is that additional 5 feet that we are involved in?

Colonel HALL. No, sir. We are involved with land, easement, rights-of-way for the whole pool. This is part of the assurance required by the authorizing legislation, which is a 1960 act.

Mr. CRAMER. Well, their argument apparently is, because fish and wildlife is involved, that they should not have to pay for the land, is that what it amounts to?

Colonel HALL. No, sir. It goes beyond that. They object to buying the land.

Mr. CRAMER. Period.

Colonel HALL. For the navigation pool also.

Mr. CRAMER. Well, that is a new precedent, then, if they were permitted to do this.

Colonel HALL. Let me correct that statement. I said object—they say they are unable.

General NOBLE. They are not objecting, as far as I can determine.

Colonel HALL. All the people think it is a good project and would like to see it proceed, but they have run up against this obstacle.

Mr. CRAMER. Mr. Chairman, could I ask a question as to how long the chairman expects to go, and what the general plan is with regard to completing this matter, possibly marking up the bill?

Mr. BLATNIK. It will only take a few minutes to complete these. We will skip the controversial and noncomplicated ones.

If there are no further questions on this, we will take the Mississippi River, Gulf Outlet, and Michoud Canal, La.

MISSISSIPPI RIVER, GULF OUTLET, MICHLOUD CANAL, LA.

It has a high benefit-cost ratio of 7 to 1. It is not too large a project, Federal cost \$1½ million. This was explained. It is a modification of existing Mississippi River Gulf Outlet project by deepening and widening the effective portions of the waterway.

There is the chart. Is there anything special or particular that you can emphasize, call to our attention on this, Colonel?

Colonel HALL. No, sir. It is a good project. It has a high benefit-cost ratio. We have just recently received all the comments from the States and Federal agencies.

It is now enroute to the Bureau of the Budget via the Secretary of the Army's Office, actually transmitted to the Secretary this morning.

Mr. BLATNIK. The Bureau of the Budget report, is that in yet?

Colonel HALL. No, sir. It just left the Chief of Engineers Office, enroute to Bureau of the Budget this morning. It was hand-carried to the Secretary's office.

Mr. HARSHA. I notice you do not have HEW's report.

Colonel HALL. HEW's comments, they signed off on their portion yesterday, and we understand there is nothing of substance which would be objectionable within their comments.

Mr. HARSHA. Nothing what?

Colonel HALL. Nothing within their comments that would be objectionable to this project, as I understand it.

MISSISSIPPI RIVER AT VENICE, LA.

Mr. BLATNIK. Next is the Mississippi River at Venice, La.

It is a similar situation and has a fairly good benefit-cost ratio, 2.5 to 1. Federal cost about \$4.5 million. It is a modest type project.

Would you give us a quick summary, what the project proposes, Colonel?

Colonel HALL. A quick summary is just to enlarge and deepen the channels going east and west of the Mississippi River, in the vicinity of Venice, La., which will have a benefit to fishing interests and oil interests to get their rigs to and from respective areas which have to come down the passes now to get out.

It is a good project. The situation with respect to the comments of Federal agencies is the same as the Michoud Canal. We just got HEW's comments yesterday. This project is in the Secretary of the Army's office as of this morning.

Mr. BLATNIK. In other words, the project consists of deepening and widening these two bayous—deepening and enlarging the connecting link between the Gulf and the Breton Sound that now exists. What is the present channel depth?

Colonel HALL. They are inadequate to accommodate the vessels based at Venice now. I do not know what the exact—these channels are 9-foot generally; but the entrances are shoaled up, so that these vessels now cannot transit these channels.

The entrances to the channels are shoaled up.

Mr. BLATNIK. Entrances are shoaled up, you say?

Colonel HALL. Yes, sir.

Mr. BLATNIK. Sixteen feet at the entrances, 14 feet to the channel Any questions?

Mr. HARSHA. Colonel, I notice the contribution from the Federal Government is \$4.5 million and non-Federal is \$1 million. What is the basis for that type of contribution?

Colonel HALL. This is the non-Federal cost, to meet the requirements of local cooperation, as specified in the document, the cost for lands, easements, and rights-of-way, and so forth, which is local interest responsibility, amounts to that \$1 million figure.

Mr. HARSHA. And has HEW commented on this as yet?

Mr. BLATNIK. Not yet. What is the status of that, Colonel?

Colonel HALL. HEW commented yesterday, the same as Michoud Canal, and we understand now comments are generally favorable.

YAZOO RIVER, MISS.

Mr. BLATNIK. To go back to the Yazoo River project, give us a quick summary on that.

There was some opposition from the railroads, as I recall.

Colonel HALL. This project concerns the feasibility of providing a dependable year-round navigation channel on the Yazoo River from its confluence with the Mississippi River at Vicksburg, Miss., upstream to Greenwood, Miss., a distance of 169 miles.

At the present time, minimum depths of 9 feet are available less than one-half of the time. The Chief of Engineers, in his report, recommends construction of one lock and dam near the mouth of the Yazoo River, channel realinement and dredging, modification of the existing Sardis Reservoir storage, alteration of State highway bridge at Belzoni, and raising the control weir at the upper end of the Whit-

tington auxiliary channel to provide a 9-foot depth navigation channel between the mouth of the Yazoo River and Greenwood, Miss.

The total estimated cost of the proposed improvement is \$52,907,000. The benefit-cost ratio is 1.6.

Local interests have indicated their willingness to meet the required items of local cooperation.

Comments from the State of Mississippi and Federal agencies are favorable. The Bureau of the Budget has no objection to the submission of this report to the Congress.

However, in the Budget statement they expected the Chief of Engineers to review the timing of initiation of each leg of the project prior to requesting appropriations of funds for construction.

Mr. Chairman, this is a brief of our prepared statement. I will be happy to answer any questions.

Mr. BLATNIK. The Bureau of the Budget raises one or two questions, does it not, about timing on the project, first of all the Bureau of the Budget noted that the upper leg of the project—what does that mean—upper leg of the project be constructed independently following completion of construction of the lower leg of the project.

What does that mean?

General NOBLE. The upper segment of the project, sir.

Mr. BLATNIK. Which is the lower leg?

Colonel HALL. The upper segment is above Yazoo City. The lower segment is from the mouth of Yazoo City.

Mr. BLATNIK. Any reason for that comment?

Taking one piece at a time, rather than to put it in one lump project—

General NOBLE. I do not see anything there that should raise much question, sir. We probably would build it that way and would so recommend.

Mr. BLATNIK. You would build it that way anyway?

General NOBLE. We would do it a piece at a time.

Mr. BLATNIK. I note that the Budget's comment would defer construction of the project until the potential annual benefits expected to accrue immediately following construction are equal to the annual costs of the project. Is this a new policy? I would think that the implementation of a policy of this nature would prevent almost any project from ever being constructed.

Colonel HALL. I think they are referring there, sir, to potential project benefits as related to those which would be expected to accrue immediately after construction.

Mr. BLATNIK. Is this a new policy or some new criteria that the Bureau has not been applying to other projects?

I am shocked by this new policy. I want the record to clearly show my opposition to the implementation of a policy which would require the annual benefits to exceed the annual costs in the first year.

General NOBLE. These are a new type of comments from BOB, sir. I do not really know how to comment on them myself.

They are an indication of a more conservative approach to scheduling of these projects for construction after authorization. I do not know whether the net result of implementing these comments would end up with our budgeting process differing in any way at all, I am not prepared to state it this morning.

Mr. BLATNIK. One more reservation, and I do not expect you to try to explain what they mean, we do not understand, either, what they meant by that, but the third reservation is: The Bureau of the Budget notes that the preponderance of project benefits would not accrue until the last half of the 50-year period of analysis.

I do not quite understand what that means. Does that mean they just do not build it for the first 20 years or 25 years, and then build a project; or because you build a project it is possible to encourage and establish traffic and increase it over a period of time, where, over 50 years, the average cost-benefits will have a favorable average.

What did they mean by that?

Colonel HALL. Sir, we examined the project benefits on a 50-year period of analysis, and it has a B-C ratio of approximately 1.6. On a 100-year period of analysis it has a B-C ratio of about 2.5.

Mr. BLATNIK. Repeat that again.

Colonel HALL. An analysis of the benefits of the project on a 50-year basis, gives us a B-C ratio of about 1.6. On the 100-year basis of analysis, it has a B-C ratio of about 2.5.

Mr. BLATNIK. 2.5 for what period of time? Last 20 years?

General NOBLE. Well, the improvement takes place, sir, in the second 50 years, from 1.6 to 2.5. It is an indication that the project, when it is built, is going to become increasingly more favorable.

Mr. BLATNIK. It would attract commerce, would it not?

General NOBLE. Yes, sir.

Colonel HALL. That is part of the potential to which they refer.

Mr. BLATNIK. Rather strange language.

Any questions?

Mr. HARSHA. Colonel, do you normally figure these on a 50-year analysis figure?

Colonel HALL. Yes, sir.

Mr. HARSHA. And does the normal project generally generate annual benefits, equal to annual costs immediately after construction?

General NOBLE. Normally it is a slow, gradual thing, sir. It has to build up. The process of attracting the industry and the build up of potential takes place after a number of years.

Mr. HARSHA. What is the average of a normal project? When does this begin to show a favorable benefit-cost ratio?

I notice they make the point that it is 15 to 20 years before this will. Now, what is your average project?

General NOBLE. I do not know that you might say there is an average one. It would depend on the degree of pressure in the immediate area. I would imagine some of these projects are long overdue. And once they go in, there is a tremendous push. And others, once they are constructed, would get going more slowly. We have never made a study of it, sir. We have not noticed anything unusual about this project. I have not, anyway.

Mr. HARSHA. I noticed yesterday a point was raised by the American Association of Railroads that you use three and an eighth percent interest in computing this. Is that correct?

Colonel HALL. That is correct.

General NOBLE. That is current policy.

Mr. HARSHA. And a more realistic interest rate reflected in the real cost by the Federal Government would change it considerably; would it not?

General NOBLE. I do not think it would so change. That is 1.6 B-C ratio, that would still be favorable.

A small change in interest would not affect this project. The 1.6 B-C ratio is out of trouble with the kind of change of interest rate that they had in mind.

Mr. HARSHA. I noticed they pointed out that estimating the traffic and transportation savings that you use considerable figures—you use figures that vary considerably from what they claim was the actual amount of commodities transported over this system.

General NOBLE. I think that would be the railroad's claim on all projects, sir.

Mr. HARSHA. Who is right?

General NOBLE. After reviewing the railroad association's comments, we feel we are right—that the project is a good one.

Mr. HARSHA. Where did you get your figures?

Mr. FEIL. We go through a traffic survey of traffic that actually moved or was available for moving in a specific calendar year, which we call a base year. Then considering the economic projections for growth of the country, growth of the local State, and growth of the area that is influenced by the project, we apply growth factors to this traffic and then, having arrived at the total amount of traffic that is available for movement, we put another check on it as to the amount of saving that might be attributed to a specific commodity in a specific movement. It varies with different commodities. We consider that as the saving that is necessary to attract movement to the waterway and traffic that does not produce that minimal saving is discarded as a potential traffic to the waterway in the base year and in our projections.

Mr. HARSHA. But they said, you included in your estimate 85,000 tons of soybeans, which moved from the Vicksburg district by rail to gulf ports for export in 1966, and then the staff of the Office of Chief of Engineers found, upon further analysis, that only 32,000 tons of soybeans actually moved by rail to gulf ports in 1966, rather than the 85,000.

Mr. FEIL. Sir, I do not have the record here to give you correct information on that. But in our checks of the work that the district did, we must have found some inaccuracies that we took out of it.

Mr. HARSHA. Did you base it upon a 32,000 or 85,000 tons?

Mr. FEIL. We feel it was reported through by the Chief of Engineers report—would be based on corrected figures.

Mr. HARSHA. Would that reflect this B-C ratio, then, the same one?

Mr. FEIL. Yes, sir.

Colonel HALL. If I may comment on the AAR, American Association of Railroads' report, they raise several questions with respect to the report. Each of these points were addressed in detail by the Chief of Engineers' staff. There were some pluses, maybe, and some minuses, but after addressing all the points, taking into consideration some of these inaccuracies that Mr. Feil alluded to, it has still a very favorable B-C ratio, and it did not affect the B-C ratio to any appreciable degree.

Mr. HARSHA. How much did it affect it?

Colonel HALL. Our addressing of their comments had to do with the validity of total economic analysis of the project, the staff of the Office of Chief of Engineers found, upon further analysis, that only

32,000 tons of soybeans actually moved by rail to gulf ports in 1966, rather than the 85,000.

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Mr. HARSHA. How much did it affect it?

Colonel HALL. Our addressing of their comments had to do with the validity of total economic analysis of the project, and we did not really make up a finite B-C ratio to compare with 1.6 or 1.62 or 1.58. We just did not do that.

Mr. HARSHA. Then you really do not know how much it affected it?

Colonel HALL. In our judgment, it did not affect it appreciably, sir.

Mr. HARSHA. I am sorry; I did not understand.

Colonel HALL. I said in our judgment it did not affect it appreciably. With minor exception, our further investigation, including re-contacts with principal shippers and receivers in the tributary area, support the traffic data and analysis procedures used in our report. Also, the further study showed that the recommended plan is an economically sound investment. We will furnish the committee a copy of the corps' review of the material prepared by the Association of American Railroads.

We can address each one of the points that they made. We have done it.

Mr. CRAMER. As I understand it, the present existing project is the clearing of wrecks and logs as such. What is the present depth that results from that?

Colonel HALL. We have 9-foot channel on the Yazoo for a period of time, which is less than one-half—9 feet is available less than one-half of the time on the Yazoo.

Mr. CRAMER. What was that—I did not understand you.

Colonel HALL. We do not have 9-foot depths, sir, greater than one-half of the time. In other words, you do not have a dependable 9-foot channel.

Mr. CRAMER. What is the year-round minimum depth? What is the least depth at any time during the year, is what I am trying to get at.

Colonel HALL. Three to 4 feet during low water periods.

Mr. CRAMER. What type of present usage in the river exists?

Colonel HALL. There is navigation on the river at the present time, transportation of goods on the river. But it is not dependable transportation.

Mr. CRAMER. What is it? What do they move on the river when it is 9 feet?

Colonel HALL. They move soybeans at the present time, wheat, sand and gravel, and shells.

Mr. CRAMER. What is going to generate this increased usage, industrial development in Greenwood, further agricultural development; what is it that gives it its benefit ratio?

Colonel HALL. If we had a dependable channel of adequate depth, we believe it would stimulate industrial development.

In Greenwood more shippers would use this as a mode of transportation, because they could depend on it, as opposed to alternate modes, because it would be cheaper. Therein the project would generate the benefit.

Mr. CRAMER. That is all.

Mr. BLATNIK. We will go to the last remaining project, a very important one, considerable interest: Red River Waterway, La., Tex., Ark., and Okla.

Colonel HALL. Mr. Chairman, I would like to submit my full statement at this point.

Mr. BLATNIK. Fine; please proceed.

RED RIVER WATERWAY BELOW DENISON DAM, LA., TEX., ARK., AND OKLA.

Colonel HALL. Mr. Chairman, members of the committee, this report is concerned with the Red River and its tributaries downstream from Denison Dam. It was prepared in partial response to resolutions of the Senate and House Public Works Committees.

The Red River below Denison Dam covers 29,500 square miles of gently rolling terrain in Louisiana, Arkansas, Oklahoma, and Texas, exclusive of the Ouachita-Black subbasin. The authorized plan for flood control includes 17 reservoirs, of which 13 are existing or under construction, together with levee protection downstream from Index, Ark. The authorized but unconstructed Overton-Red Waterway provides for a navigable channel mostly in a land cut along the bank of the Red River flood plain to Shreveport, La.

The Red River is characterized by wide fluctuations in stage as well as caving banks and many acres of productive land are lost to the river each year. Existing improvements must be relocated or abandoned. Commercial traffic on the Red River is negligible and local interests desire facilities for low-cost bulk transportation in the area.

The Chief of Engineers recommends the construction of bank stabilization works on the Red River from the mouth to Denison Dam a distance of 530 miles. Also, construction of a 9- by 200-foot slack-water navigation channel about 294 miles long in the main channel of the Red River, in lieu of the authorized Overton-Red route, from the mouth to Shreveport, thence via Twelve-mile and Cypress Bayous to the vicinity of Daingerfield, Tex. Nine locks and dams, including locks at two existing dams, will furnish the necessary lift.

The total estimated cost is \$522,910,000, of which \$471,223,000 is Federal and \$51,687,000 is non-Federal. The annual charges for the bank stabilization improvements are estimated to be \$11,206,000 and annual benefits are estimated to be \$13,496,000. The benefit-cost ratio is 1.2. The annual charges for the navigation improvements are estimated

to be \$15,399,000 and annual benefits are estimated to be \$19,827,000. The benefit-cost ratio is 1.3.

For the bank stabilization improvements local interests are required to furnish flood control a, b, c's; and for the reach from Index, Ark., to Denison Dam, provide a cash contribution for land enhancement amounting to 26.1 percent of the estimated Federal cost of construction, such construction is now estimated at \$20,127,000. For the navigation improvements local interests are required to furnish all lands, easements, and rights-of-way, including lands for recreational development; hold and save free from damages, including those resulting from dredging, changes in ground water level, and wave action; provide a proportionate share of the cost of bridge alterations over existing channels; assume all obligations of owning, maintaining, and operating all railway and highway bridges altered or constructed as part of the navigation project; make alterations in and maintain utility facilities; and obtain water rights that may be necessary for operation in the interest of navigation. For the recreation developments, make contributions of at least 50 percent of the total first cost of that development; operate and maintain the recreational areas and facilities.

With respect to the recommended requirements of local operation, I refer to an enclosure attached to this statement which is intended to clarify certain aspects of their intended application.

This document notes that it is the intent of the report that the navigation servitude apply to alterations or relocations of facilities in or over navigable streams. This means that the owners of these facilities would bear the relocation and subsequent operation and maintenance costs. In the case of highway and railway bridges, the cost-sharing principles of the Truman-Hobbs Act would apply, except that, in the case of highway bridges, alterations or relocations will be performed in accordance with applicable design standards existing at the time of alteration or relocation, in accordance with the principles of section 207 of the Flood Control Act of 1960, as amended, and any improvement in the structures arising from these design standards will be at Federal expense, and not considered a betterment as defined in the Truman-Hobbs Act.

All other relocations, including necessary lands, easements, and rights-of-way, are the responsibility of the local sponsors of the project, with two exceptions. Where a new highway bridge is required because of a land cut, the construction cost of the bridge will be a Federal expense. Relocations of all railroad facilities not subject to the navigation servitude will be at Federal expense. The necessary rights-of-way in both instances are to be furnished by the local sponsors.

Operation and maintenance of all facilities to be altered or relocated by the Federal Government or local sponsors will normally be performed by the owners. The capitalized operation and maintenance costs of a newly introduced movable span feature in railroad bridges spanning new land cut navigation channel segments may be borne by the Government as part of the relocation construction expense.

I would also note that the entire cost of Harvard Reservoir construction and operation is to be at Federal expense, as indicated in the text

of the report of the district engineer, and no local cooperation is required.

The comments of the States and concerned Federal agencies are generally favorable. However, the States of Louisiana and Oklahoma and the Governor of Texas have suggested changes in the requirements of local cooperation applicable to the bank stabilization works between Shreveport and Denison Dam. However, the requirements of local cooperation recommended by the Chief of Engineers are in accordance with current policy applicable to the appropriate reaches and similar to those authorized by the Congress for similar types of improvements.

The Bureau of the Budget notes that the recommended waterway segment between Shreveport and Daingerfield is economically justified by only a narrow margin and concurs with the recommendation of the Chief of Engineers for an economic restudy of this reach prior to construction. The Bureau also believes the study should reflect the extent of Federal interest in operation and maintenance of the existing Caddo Dam. Also the Bureau expresses concern over the precedent which would be established by the recommended project for bank stabilization between Index, Ark., and Denison Dam, and expresses the belief that bank stabilization should not be a Federal responsibility unless directly related to navigation or flood control. Subject to consideration of the above, the Bureau of the Budget advises there would be no objection to the submission of the proposed report to the Congress.

The Secretary of the Army concurs with the views of the Bureau of the Budget. However, with respect to bank stabilization, the Secretary has requested the Chief of Engineers to develop a proposal for a general policy for consideration by all concerned.

Mr. Chairman, this completes my statement. I have also two documents that I would like placed in the hearing record.

Mr. BLATNIK. We will place them in the record at this point.
(Materials follow:)

COST-SHARING POLICY FOR RED RIVER BANK STABILIZATION AND NAVIGATION PROJECT BY BEACH

1. *Navigation.*—From the Mississippi River upstream to Shreveport thence following Twelvemile and Cypress Bayous to Daingerfield, Texas.

Local cooperation for the navigation oriented features have been recommended following the usual "a, b" requirements for navigation projects. The River and Harbor Act of 1920 recognized that navigation improvements might produce local benefits as well as general benefits to the Nation and directed that in subsequent investigations recognition be given to these benefits with recommendations for local cost sharing. Cost sharing policies on navigation improvements have thus evolved over a period of many years through the precedents enacted into law for similar type projects. See Appendix I.

2. *Bank Stabilization.*—From Shreveport upstream to Index, Arkansas.

Local cooperation for bank stabilization improvements in this reach follow the "abc" requirements, which include project maintenance, similar to a local flood protection project because the stabilization works are primarily for protection of an existing levee system. This is in consonance with the many projects that provide localized flood protection authorized since the Flood Control Act of 1936. Furthermore, it was this Act which established the Federal interest in flood control and the policy of sharing in the cost of flood protection in recognition of local beneficial effects.

3. *Bank Stabilization.*—From Index, Arkansas, upstream to Denison Dam.

Local cooperation for bank stabilization in this reach includes the same "abc" requirements as for the reach from Shreveport to Index plus a cash contribution reflecting the *land conversion* benefits expected to accrue. Whereas the

stabilization works in the downstream reach protect existing levees, the stabilization works between Index and Denison will prevent the future erosion and loss of agricultural land and also provide an incentive for conversion of presently idle and woodland to agricultural uses. On this basis the proposed stabilization works are similar to major drainage improvements for which a cash contribution in recognition of land conversion benefits has been recommended by the Chief of Engineers and enacted into law on a project basis. In this case, as in the case of major drainage works, the method of determining the cash contribution depends upon the relative magnitude of land conversion benefits compared to total project benefits with credit being given to local interests for the estimated value of lands, easements and rights-of-way furnished by them.

APPLICATION OF LOCAL COOPERATION REQUIREMENTS ON RED RIVER BELOW DENISON DAM WITH RESPECT TO NAVIGATION

The first aspect concerns the application of navigation servitude within the stated requirements of local cooperation. As used in the report recommendations, "local interests" refer collectively to non-Federal interests and is not intended to shift existing responsibilities under navigation servitude from affected owners to the local project sponsor. Whenever applicable, the Government will exercise its rights in servitude of navigation to compel the owners of project affected lands and facilities to assume all project responsibilities toward their respective ownerships which are assigned to local interests in the recommended requirements of local cooperation.

The second aspect concerns roads, railroads and any other improvements which do not cross the present or proposed navigation channel but which require relocation (alteration or removal) due to higher water surfaces resulting from the proposed navigation improvements. The report is based upon a project plan which considered the obviously necessary relocations of facilities crossing the proposed navigation channel. Detailed preconstruction planning could reveal the need to relocate (alter or remove) other improvements which do not cross the proposed channel. The wording of the recommended requirements of local cooperation is sufficiently broad to clearly assign full responsibility to local interests for all non-crossing type relocations except those involving roadway and railroad facilities. If and as non-crossing type road and railroad relocations are found necessary, the relocation of such roads will be a local interest responsibility and the relocation of such railroad facilities will be a Government responsibility. Except for right-of-way furnished by local interests, provision at Government expense for the necessary relocation of all railroad facilities not previously subject to navigation servitude would be consistent with similar action authorized by the Overton-Red River Waterway plan, which would be superseded by authorization of the plan recommended in the report.

The third aspect concerns design standards to be used in the alteration of highway facilities crossing the proposed navigational channel. The construction of new highway bridges crossing proposed land cut reaches of the navigation channel is to be entirely at Government expense. In accordance with the principles established in Section 207 of the Flood Control Act of 1960, as amended, these new highway bridge facilities will normally incorporate at Government expense, any higher design standards of the local governmental owner which are applicable at the time of taking. However, it is also recommended that local interests be required to participate in the alteration cost of highway bridges crossing the existing navigation channel in accordance with the principles of the Truman-Hobbs Act, and the text of the plan shows that only high level fixed span bridges are to be provided for highways. The principles of the Truman-Hobbs Act as now administered provide that higher design standards are a betterment to be incorporated only at the request and expense of the bridge owner. The intention of Congress regarding design standards to be employed in the relocation of public roadways and the earlier intention of Congress regarding the incorporation of betterments at owner expense in Truman-Hobbs type bridge alterations, present a hidden conflict in principles of which the Congress should be aware. In the absence of further guidance by the Congress or its Committees, the Corps will follow the principles of the more recent legislation and consider that incorporation of current design standards does not constitute a betterment within the principles

of the Truman-Hobbs Act as applied to the alteration or replacement of highway bridges at this project, where the need for bridge replacement arises from the construction of additional navigation improvements rather than increased waterway traffic over existing navigation facilities.

The fourth aspect concerns the operation and maintenance expense of project altered or constructed railroad bridges. The recommended local cooperation requires local interests to assume such costs. As indicated in the above first aspect, "local interests" collectively designates non-Federal interests without assigning responsibilities to a specific non-Federal entity. Owners of project altered facilities customarily accept resultant increased operation and maintenance expenses of their respective facilities, because the additional cost is minor and because they will share in the general benefits of the project. However, the construction or alteration of railroad bridges incorporating a new movable span feature expressly for navigation, introduces a substantial new operating cost for the railroad bridge owner. Additionally, railroad owners usually do not consider themselves benefited by improvement of a competitive mode of transportation. Accordingly, railroad owners normally insist upon full compensation for this added expense whenever they may legally do so. For altered or replacement bridges previously subject to navigation servitude, these costs will remain with the bridge owner pursuant to the principles of Section 6 of the Truman-Hobbs Act. However, for bridges to be newly constructed over proposed land cut reaches of the navigation channel, the railroad owner may properly insist upon full compensation for this appreciable additional operation and maintenance expense, prior to his execution of a contract with the Government for construction of the bridge itself. Prior experience has shown that states and political subdivisions are usually prohibited or not empowered in law to share in this expense of privately owned utilities. In the absence of specific legislative requirements assigning operation and maintenance costs, it has been the practice for the Government to pay such capitalized additional O&M costs to the railroad as part of any Government relocation contract providing for bridge construction over land cuts. Accordingly, the requirement that local interests assume the operating and maintenance expense of project altered bridges is not intended for application to the additional operation and maintenance expense of the movable span feature in railroad bridges to be constructed by the Government across proposed land cut reaches of the navigation channel; the capitalized cost of this additional operation and maintenance expense will be assumed as part of the Government cost in the relocation of railroad facilities only when a new bridge is to be constructed over a proposed land cut reach of the navigation channel.

The fifth aspect concerns proposed local cooperation at Harvard Reservoir, which is to be constructed on Cypress Bayou, well upstream of the head of navigation, in order to assure an adequate supply of water for navigation project operation in the channel reach upstream of Shreveport. The entire cost of Harvard Reservoir construction and operation, including all necessary interests in lands, is to be a Government expense as indicated in the text of the report under the item "Reservoir" in Table 4 and the detailed cost estimate of Table 19. The recommended requirements of local cooperation are not applicable to the Harvard Reservoir feature as now planned.

Colonel HALL. To briefly summarize my statement, the Red River below Denison Dam covers 29,500 square miles of gently rolling terrain in Louisiana, Arkansas, Oklahoma, and Texas, exclusive of the Ouachita-Black subbasin.

The Chief of Engineers recommends the construction of bank stabilization works on the Red River from the mouth to Denison Dam, a distance of 530 miles.

Also, construction of a 9-foot by 200-foot slack water navigation channel, about 294 miles long, in the main channel of the Red River, in lieu of the authorized Overton-Red route, from the mouth to Shreveport, thence via 12-Mile and Cypress Bayous to the vicinity of Daingerfield, Tex., nine locks and dams, including locks at two existing dams, will furnish the necessary lift.

There are four segments of this project.

One is the navigation of the mouth to Shreveport, thence via 12-Mile and Cypress Bayous to Daingerfield, Tex.; channel stabilization works from Shreveport upstream to the Red River to Index, Ark.; then stabilization on the banks from Index on up to Denison.

Each segment of the project has a favorable B-C ratio. The total estimated cost of the project is \$522,910,000, of which \$471,223,000 is Federal and \$51,687,000 is non-Federal. The benefit-cost ratio for the bank stabilization features is 1.2. The benefit-cost ratio for the navigation features is 1.3.

Mr. CRAMER. Could I ask a question, Mr. Chairman?

Mr. BLATNIK. Let me check first: I am not clear on your benefits, Colonel. Bank stabilization, you have got them divided there. Are bank stabilization aspects, is it the overall comprehensive proposal, are they separate and unrelated?

Colonel HALL. The bank stabilization features were treated separately to determine if those works were economically justified by themselves. Each of the three reaches has a favorable B-C ratio as a separate unit. However, in the lower reach where a navigable waterway is recommended, the bank stabilization works are necessary to preserve channel alinement.

Mr. BLATNIK. I am not clear on the benefits. Approximately a half a billion dollars will be allocated for bank stabilization, not precisely—total project cost is \$500 million. How much of that goes for bank stabilization? I would like to have separate tabulations.

Colonel HALL. It is \$193 million.

Mr. BLATNIK. You have got a cost-benefit ratio and you must have the cost.

Colonel HALL. Yes, sir—\$193 million.

Mr. BLATNIK. About \$200 million, about two-fifths, about 40 percent of the project will be for bank stabilization. Your problem is particularly extreme upstream, is it not, on the upper reaches of the Red River?

Colonel HALL. The Red River itself is a meandering river throughout its length, sir.

Mr. BLATNIK. The Red River is characterized by wide fluctuations in stage as well as by caving banks and unpredictable shoaling conditions adverse to the interests of navigation. Many acres of productive land are lost to the river each year due to caving banks, and improvements must be either relocated or abandoned.

The benefit-cost ratio on that is 1.2.

Navigation is of primary concern in the lower reaches of Red River, and your benefit-cost ratio is 1.3. And I estimate that about 60 percent of its cost would be for navigation.

On the comments of the Bureau of the Budget, I am not clear on just what they are driving at. It says, and I do not understand this, the Bureau of the Budget notes that the recommended waterway segment between Shreveport, La., and Daingerfield, Tex., is economically justified by only a narrow margin. We are concerned about the cost ratio of the entire stretch, are we not? It is nothing unusual. That is what we do all the time, with all these sections, is it not? In some sections the benefit-cost ratio would be less than other sections. You take the average, overall B-C ratio?

Colonel HALL. The overall B-C ratio for the navigation feature, sir, which is the recommendation for the Chief of Engineers, navigation, to Daingerfield, Tex., is 1.3. If you break this down by segment from Shreveport, the Dangerfield reach, I think this is a statement to which the Bureau was addressing, and they recommend and concur in the recommendation of the Chief of Engineers that this be restudied prior to construction.

However, we do this within the corps on all projects.

Mr. BLATNIK. You do this as a normal course of procedure?

Colonel HALL. Where a project can be broken down to a useful segment, the project is done so.

Where it cannot, the entire project is brought through this economical analysis.

Mr. BLATNIK. The Bureau expresses concern over the precedent that would be established by the recommended project for bank stabilization between Index, Ark., and Denison Dam; and expresses the belief that bank stabilization should not be a Federal responsibility unless directly related to navigation or flood control.

This seems rather strange to me. Can you furnish either at this time or for the record later on instances where bank stabilization has been performed by the Corps of Engineers, where it was not directly related to navigation or flood control?

Colonel HALL. Yes, sir; I can.

Mr. BLATNIK. Can you give us any of those illustrations now?

Colonel HALL. Yes, sir.

On the Sacramento River the project for Chico Landing to Red Bluff recommended in House Document No. 272, 84th Congress, and authorized in 1958; the Missouri River, Kenslers Bend, published in House Document No. 821, 76th Congress, and authorized in 1941; the Missouri River, Garrison-Oahe, authorized in 1963 the project objectives were bank erosion in each case.

Mr. HARSHA. Would the gentleman yield at that point?

Mr. BLATNIK. Just one question and I will yield.

If you have any other projects as a precedent, list them; and, if possible, get the project cost or cost estimates and give us some idea of their magnitude, whether it is a minor project or major project.

I yield.

Colonel HALL. I will, sir. I do not have that information available here.

Mr. HARSHA. You say these are authorized by House documents. That just authorizes them for study; that does not authorize the construction of them.

Colonel HALL. They are reports to the Congress, published in those documents, and they were authorized by the Congress in flood control acts.

Mr. HARSHA. They are authorized by law, to be constructed?

Colonel HALL. Yes, sir.

Mr. BLATNIK. Mr. Cramer.

Mr. CRAMER. On that same point, will you yield, Mr. Chairman; on that same point?

Mr. BLATNIK. Yes.

Mr. CRAMER. Did those bank stabilization segments of those charges, were they similar to this, where it did not relate to navigation or flood

control, or was there a channel deepening or flood control included and stabilization was a part of it?

Colonel HALL. Two of those three did not have any benefits for navigation or flood control.

Mr. CRAMER. Was there navigation or flood control project in that segment where you also had bank stabilization?

Colonel HALL. Sir, I do not know. I will have to verify that point and answer that question for the record, because I just do not know.

General NOBLE. We do not have that answer, sir. We can get that; but the project objectives were in order, as he listed them, bank erosion for the first one; second, bank erosion; and the third one, bank erosion.

Mr. HARSHA. Did these projects have navigation or flood control benefits? Since this question seems to be somewhat complicated could you supply data on this for the record?

Colonel HALL. Yes, sir; we will.

Mr. CRAMER. Will the gentleman yield?

Mr. HARSHA. Yes; I will.

Mr. CRAMER. The chairman asked that question of the gentleman. The chairman asked the question: "Do you have a precedent for bank stabilization consistent with the Bureau's observation that is not related to navigation or flood control?"

That was the question.

These were cited as examples. That is why it did not seem to me that it was possible that that was a proper example; because they were related, most of them, either to navigation or flood control, as I understood it.

The next question I wanted to ask was: "What is the navigation presently in existence in this area"—Index—there is not any; is there?

Colonel HALL. Sir, there is no significant navigation in this reach.

Mr. CRAMER. Well, that seems to me that it is possible that is a legitimate point being raised, and it is a policy decision, which this committee will have to make.

Now, let me ask one more question: "Whether stabilization itself, not related to navigation or flood control, is a justified Federal expenditure, when you do not have a navigation project in existence?"

Now, the other point is, this restudy, you have 1.2 cost-benefit. I suggest it be recommended for an economic restudy prior to initiation.

Now, if you have a restudy of the 1.2 cost-benefit, you have to consider the increased interest cost, it is not quite likely that that will be determined not feasible? What is the breaking point between the present interest and new interest costs?

General NOBLE. The new one has not been established.

Mr. CRAMER. Well, it is being discussed. I think you are familiar with it.

General NOBLE. I think from the ones that I have discussed, that perhaps a project that is 1.2 or less will come under—

Mr. CRAMER. That is my impression. I think it should be interesting to the committee that projects that are now feasible under present interest rate, subject to restudy, may not end up as feasible as a result of the one economic aspect of the increased rate requirement.

General NOBLE. They may not; no, sir. That is why we do review them before we go in for construction.

Mr. CRAMER. We had a similar problem relating to the hurricane protection in Hillsborough River. It has got 1.2, as I remember. It is a hydrological study being proposed, what-have-you, and there could be a similar effect relating to it, possibly. So I just am interested in the fact that we are judging these projects on the one criteria, which a year from now might be unfeasible based upon the new criteria.

This is something we are always running into, relating to the basic criteria being required.

I had some other questions on this, but time does not permit.

Mr. BLATNIK. This will conclude our hearings just for today, until further notice of the Chair. Further testimony by the Corps of Engineers will be continued. This will conclude your testimony for this morning, gentlemen.

I thank you and your staff and your associates.

The hearings for this morning are adjourned.

(Whereupon, at 1:20 p.m., the subcommittee was adjourned until further notice of the Chair.)

OMNIBUS RIVERS AND HARBORS, FLOOD CONTROL, AND RIVER BASIN MONETARY AUTHORIZATION BILL—1968

TUESDAY, JULY 2, 1968

HOUSE OF REPRESENTATIVES,
SUBCOMMITTEE ON RIVERS AND HARBORS,
OF THE COMMITTEE ON PUBLIC WORKS,
Washington, D.C.

The subcommittee met, pursuant to adjournment, at 3:05 p.m., the Honorable John A. Blatnik (subcommittee chairman) presiding.

Mr. BLATNIK. The Subcommittee on Rivers and Harbors of the House Public Works Committee will please come to order, continuing public hearings on rivers and harbors and beach erosion projects, hearing testimony from the Corps of Engineers.

Would you proceed with the Colorado River, Tex., project?

COLORADO RIVER, TEXAS

**STATEMENT OF COL. FERD E. ANDERSON, JR., ASSISTANT DIRECTOR
OF CIVIL WORKS FOR CENTRAL DIVISIONS, OFFICE, CHIEF OF
ENGINEERS, WASHINGTON, D.C.**

Colonel ANDERSON. Mr. Chairman and members of the committee, this bill would authorize the Secretary of the Army, acting through the Chief of Engineers, to construct the project for improvements at the mouth of the Colorado River in the interest of navigation, flood control, and related purposes, substantially in accordance with the recommendations of the division engineer, southwestern division, in his interim report dated February 2, 1968.

The division engineer recommends the construction of a shallow-draft navigation channel from the Gulf of Mexico through a jetty-protected entrance to a turning basin at Matagorda, a distance of about 7 miles, and a diversion dam and channel to convey Colorado River flows into Matagorda Bay.

The division engineer estimated the Federal cost to be \$11,554,000. The annual charges are estimated to be \$660,000 and the annual benefits to be \$837,000. The benefit-cost ratio is 1.3 to 1.

The division engineer's report has been reviewed by the Board of Engineers for Rivers and Harbors. The Board has requested the reporting officers to make certain revisions in formulation of the plan of improvement and in the report.

Mr. Chairman, this completes my statement.

Mr. BLATNIK. Generally the project is a favorable project, but it has quite a few processes or steps to complete before it is ready for final action?

Colonel ANDERSON. In the final stages now for resubmission to the Board of Engineers.

Mr. HARSHA. What are these divisions, Colonel?

Colonel ANDERSON. The jetty entrance there is about three-fourths of the cost of the project, and the Board of Engineers feels that a redesign of this jetty entrance can reduce the cost considerably.

There is also some question about cost sharing provided by the local interests. And these are under review, too.

Mr. HARSHA. Well then, until you get this redesign of the jetty entrance, we do not know what the benefits will be, actually, do we?

Colonel ANDERSON. We know that the redesign will be cheaper and therefore the benefit-cost, total benefit-cost ratio will increase.

Mr. HARSHA. This is interesting to me. The cost is cheaper and the benefit-cost ratio increases. Now we have a project that costs us more, you also say the benefits are more, so the cost-benefit ratio does not change?

Colonel ANDERSON. Well, it depends on the situation, sir.

Mr. HARSHA. Why? Would the same rule not apply?

Colonel ANDERSON. What we are looking at is not the benefits in this case, but looking at the cost of the jetty with the same benefits.

Mr. HARSHA. Would the annual charges be the same?

Colonel ANDERSON. No, sir. The annual charges would go down; if the jetty costs go down.

Mr. HARSHA. What portion of it would go down?

Colonel ANDERSON. Well, the jetties, the two jetties at the entrance are about three-fourths of the cost of the total project. So if we could reduce it significantly, it would have a significant total reduction in the cost of the project.

Mr. HARSHA. Why, then, on flood control projects, when the cost goes up, the benefit-cost ratio increases along with the cost?

Colonel ANDERSON. That is when we are discussing the escalation of cost due to the price increases that occur year to year. We generally believe that when the costs of land acquisition, and the cost of construction go up, that likewise the damages to land or the damages to structures would go up, and therefore the flood control benefits would go up.

Mr. HARSHA. Well now—

Colonel ANDERSON. That is not the case in this particular project.

Mr. HARSHA. Have the States commented on this?

Colonel ANDERSON. Yes, sir.

Mr. HARSHA. What is it?

Colonel ANDERSON. Favorable, and the Matagorda Navigation District States they will provide the necessary assurances for the project.

Mr. HARSHA. Well, then, what is the problem with local contribution or participation?

Colonel ANDERSON. I should mention these are the preliminary statements from the agencies that we have coordinated with. We have not sent the report out to the States and agencies for a final comment.

Mr. HARSHA. I see.

What is the problem with cost sharing, that you mentioned?

Colonel ANDERSON. There is some recreational navigation involved in this project, and the cost sharing of the recreational navigation is in question.

Mr. HARSHA. I see.

Colonel ANDERSON. If it were just a small boat harbor, it would be cost shared 50-50. This is more than a small boat harbor, and includes primarily commercial navigation with a minor amount of —

Mr. BLATNIK. I see Congressman John Young, of Texas, is here in the room. Can you add anything, Congressman?

Mr. YOUNG. In that connection, if I might, the local authority has authorized me to assure the corps and the committee that they understand that under this new formula there will be some additional cost sharing locally, and that they are willing and ready to assume whatever share the corps considers to be fair and equitable to the local interest.

Colonel ANDERSON. Yes, sir; we understood that.

Mr. HARSHA. That is fine; but I understand the State has not given its final approval of the project.

Colonel ANDERSON. That is right, sir. We have no final comments on the project.

Mr. HARSHA. How about the Federal agencies?

Colonel ANDERSON. The same applies to Federal agencies. We have preliminary comments from them.

Mr. HARSHA. What is their preliminary comment?

Colonel ANDERSON. Their comment is favorable. They say the flood discharge channel will considerably improve the conditions for the shrimp bed nurseries, and that this will increase the overall production of shrimp in the area. This is a high shrimp catch area.

Mr. HARSHA. How about BOB?

Colonel ANDERSON. It has not been submitted to BOB.

Mr. HARSHA. That is all I have.

Mr. YOUNG. I have here a letter which I filed earlier with the committee, from the Governor of Texas, and which, if I might quote one line:

I have been advised that the State agencies, that is the Texas Water Development Board, the Texas Water Rights Commission, and the Texas Parks and Wildlife Department, concur in the proposed improvements based on the preliminary field report.

So I thought the committee might want to know that. That is signed by John Connally, Governor of Texas.

Mr. HARSHA. That is based on the preliminary report?

Mr. YOUNG. Yes, sir. It is really improved by the Board's recommendations.

Mr. BLATNIK. The next project, Congressman, in which you are interested, is the Port Aransas-Corpus Christi Waterway, Tex.

PORT ARANSAS-CORPUS CHRISTIE, TEX.

General NOBLE. Mr. Chairman, Colonel Seidel will report on this project.

Mr. BLATNIK. Colonel Seidel.

STATEMENT OF COL. RICHARD L. SEIDEL—Resumed

Colonel SEIDEL. Mr. Chairman, and members of the committee:

This report concerns improvement of the existing channels from Corpus Christi Bay to the Gulf of Mexico.

The existing Federal navigation project provides for a channel depth of 40 feet to the deepwater ports of Harbor Island, Ingleside, and Corpus Christi, and a branch channel 36 feet deep to a turning basin at La Quinta on the north shore of Corpus Christi Bay.

In his proposed report, the Chief of Engineers recommends that the existing project be modified to provide a depth of 47 feet in the outer bar channel and a depth of 45 feet in the inner channels to Corpus Christi and the Viola turning basin and to La Quinta, together with other modifications.

The Federal cost is estimated to be \$19,042,000 for construction and \$148,000 annually for operation, maintenance, and replacement, in addition to that now required. The annual charges are \$983,200 and the annual benefits are \$4,687,700. The benefit-cost ratio is 4.8 to 1.

Local interests are required to provide the usual items of cooperation for navigation projects.

The report has been submitted to the State of Texas and the interested Federal agencies. Upon receipt of the comments, the report of the Chief of Engineers will be sent to the Bureau of the Budget through the Secretary of the Army, prior to its submission to the Congress by the Secretary of the Army.

This completes my statement, Mr. Chairman.

Mr. BLATNIK. It has an extremely favorable cost-benefit ratio, 4.8 to 1.

Can you give us the latest report on the comments from other Federal agencies, such as Interior, Transportation?

Colonel SEIDEL. Sir, we have received none. Their 90 days would expire on August 29.

Mr. YOUNG. We are on that, Mr. Chairman.

Mr. BLATNIK. Do you have any word on that?

Mr. SULLIVAN. I have talked to some of them, also. They are all expedited.

Mr. BLATNIK. Any other questions?

Mr. HARSHA. No questions.

Mr. BLATNIK. Thank you very much, Colonel.

We are back to the first project on our list, the Red River Waterway, La., Tex., Ark., and Okla.

RED RIVER WATERWAY, LA., TEX., ARK., AND OKLA.—continued

Mr. BLATNIK. Lt. Col. Daniel D. Hall, Assistant Director of Civil Works for Mississippi Valley, Office, Chief of Engineers, here in Washington.

Colonel, please proceed.

STATEMENT OF LT. COL. DANIEL D. HALL—Resumed

Colonel HALL. Thank you, sir.

This is a continuation of the testimony on this project previously given. May I briefly summarize it at this time?

The project as recommended by the Chief of Engineers consists of a navigation feature from the Mississippi River via Old and Red River to Daingerfield, Tex.; bank stabilization within this navigation reach to Shreveport, La.; bank stabilization from Shreveport to Index, Ark.; and bank stabilization from Index to Denison Dam.

Mr. BLATNIK. Stop 1 minute. Use the small portion of the map. From the juncture of the Red River and the Mississippi up to Shreveport—that is Daingerfield, and that is primarily the navigation aspect of the project?

Colonel HALL. That is correct.

Right about there is Index [indicating].

Mr. BLATNIK. That is primarily bank stabilization?

Colonel HALL. From Index to Denison is primarily bank stabilization. Shreveport to Index is bank stabilization.

Mr. BLATNIK. Index to Denison is bank stabilization?

Colonel HALL. Yes, sir.

Your revised handout breaks down the cost of these features by reach and purpose.

The comments of the States and concerned Federal agencies all are generally favorable. However, the States of Louisiana and Oklahoma and the Governor of Texas have suggested changes in the requirements of local cooperation applicable to the bank stabilization works between Shreveport and Denison Dam.

However, the requirements of local cooperation as recommended by the Chief of Engineers are in accordance with current policy applicable to the appropriate reaches and similar to those authorized by the Congress for similar types of improvements.

The Bureau of the Budget notes that the recommended waterway segment between Shreveport and Daingerfield is economically justified by only a narrow margin and concurs with the recommendation of the Chief of Engineers for an economic restudy of this reach prior to construction. The Bureau also believes the study should reflect the extent of Federal interest in operation and maintenance of the existing Caddo Dam. Also the Bureau expresses concern over the precedent which would be established by the recommended project for bank stabilization between Index, Ark., and Denison Dam, and expresses the belief the bank stabilization should not be a Federal responsibility unless directly related to navigation or flood control; and in a subsequent clarifying letter recommends against authorization of that portion between Index and Denison Dam. Subject to consideration of the above, the Bureau of the Budget advises that there would be no objection to the submission of the proposed report to the Congress.

The Secretary of the Army concurs with the views of the Bureau of the Budget. However, with respect to bank stabilization, the Secretary has requested the Chief of Engineers to develop a proposal for a general policy for consideration by all concerned.

When I presented testimony on this proposal earlier I was asked if there was any precedent for the installation of bank stabilization measures by the Federal Government. Insufficient data were at hand at that time to provide a clear-cut answer to the question, and this resulted in some confusion.

I have a statement prepared for insertion in the record and, with your concurrence, I am submitting the statement at this time. It is rather

lengthy but I can summarize it by saying that an examination of previous legislation shows that there is precedent for congressional authorization of bank stabilization projects. Details on a number of examples are given in the written statement.

Mr. Chairman, this completes my statement.

Mr. BLATNIK. How many examples do you have?

Colonel HALL. I think it is about eight, sir.

Mr. BLATNIK. Aside from the number, is there anything peculiar about these particular eight? What I am trying to get at, Colonel, is: While the bank stabilization may not be related directly to the navigation or flood control aspects, is there some emergency or some secondary reason for holding bank stabilization, such as undue raising of the levels of the water because of a dam, and Congress felt it was justifiable, that since there is some liability, either direct or indirect, we would carry on this remedial or emergency corrective bank stabilization?

Colonel HALL. Well, the primary purpose of some of these examples was purely bank stabilization and prevention—

Mr. BLATNIK. Per se; bank stabilization, per se?

Colonel HALL. It was prevention of damages, for example, the project on the Red River itself at Garland City, Ark. This is carried out under authority provided by the Congress in the omnibus bill of 1960. This project cost in the neighborhood of a million and a quarter dollars.

This was for the protection of a railroad bridge and a State highway bridge. But it was purely for the—it was bank stabilization.

Mr. BLATNIK. We will review the projects later in more detail.

Colonel HALL. All right, sir.

Mr. BLATNIK. Because there will be some policy questions, policy aspects to decide, and the Chair feels there ought to be much more time to study the consideration given to bank stabilization projects which run on the order of a quarter of a billion dollars, which would be the total cost, on page 2 of your summary.

Colonel HALL. Yes, sir.

ANSWER TO QUESTION CONCERNING RED RIVER BANK PROTECTION PROPOSAL

During the discussion of the report on the Red River below Denison Dam it was mentioned that in commenting thereon the Bureau of the Budget had stated that it was unaware of any authorized bank stabilization project that is not related to a navigation improvement, or to the protection of flood control measures. Representatives of the Corps of Engineers were asked if there were not instances in which bank stabilization, as such, had been authorized by Congress. It was not possible to provide a clear-cut answer to this question without a careful examination of the record. This statement summarizes the result of such an examination.

It was found that a number of precedents exist for Congressional authorization of streambank protection projects which are not "related" to navigation or flood control projects; in the sense in which that term is used in the Bureau of the Budget's letter of 13 April 1968. More specifically, it was found that in some instances Congress authorized the installation of bank protection measures on streams where no navigation or flood control works had been, or were to be, provided. In other instances, Congress authorized bank protection measures on streams where navigation or flood control works also exist, but where the sole, or main, reason for the bank protection measures was to stop the destruction of land by bank erosion.

The example most pertinent to the Committee's consideration of the Red River Report is a project authorized in 1944 for the purpose of preventing bank caving in the vicinity of Shreveport, La. This project was proposed in a report, printed

as House Document No. 627, which made it clear that the only benefits creditable to the project would result from the prevention of bank-caving. The authorized project was carried out at a cost of about \$4 million.

Another precedent on the Red River itself was the project for bank protection at Garland City, Arkansas, carried out under an authority provided by Congress in the Omnibus Act for 1960. This project is nearing completion and it is estimated that it will cost in the neighborhood of a million and a quarter dollars.

Bank protection projects have also been carried out on rivers other than the Red.

For some ten years while the Arkansas navigation project was in a "deferred" category the Federal Government installed bank protection measures along the Arkansas River for the purpose of reducing damages to the land. The cost of the work accomplished before appropriations for bank protection were merged with those for the navigation project is estimated to be in the neighborhood of \$70,000,000.

Other precedents include:

(a). A project for controlling bank erosion on the Missouri River on a reach extending from Sioux City to Kenslers bend. This project was authorized by language in the Flood Control Act of 1941. It was subsequently extended by the 1948 Act. The bank protection works installed under this legislation have cost slightly over \$11 million.

(b). A plan for installing bank protection measures at various points along the reach of the Sacramento River extending from Chico Landing to Red Bluff, California, was submitted to Congress as one component of a comprehensive plan. Another component of that plan provided for protection of certain portions of the valley from floods, but the bank protection component was justified separately and was specifically authorized. Authorization was by the 1958 Omnibus Act and something over a million dollars has been expended for its partial accomplishment.

(c). The Act of December 30, 1963, authorized the installation of bank protection works along the reach of the Missouri River below Garrison Reservoir in North Dakota. Works costing about \$3 million have been installed to date.

(d). The first general Flood Control Act—the 1936 Act—specifically authorized the installation of bank protection works in the Willamette River Basin, and this authority was broadened by several subsequent Acts; particularly by the 1950 Act. The estimated cost of completing the authorized work is roughly 13 million. About 95 percent of this work has been carried out.

(e). A similar bank protection program was authorized in 1950 for the Lower 125 miles of the Columbia River. The estimated costs of this work is \$10 million. The authorized work has been about 40 percent completed.

The eight precedents cited are the result of an incomplete review of the records. They serve to establish, however, that the Congress has not hesitated to authorize Federal bank protection projects over a period of more than 30 years. In each of the cases mentioned the plan submitted to Congress for consideration made it clear that the measures proposed were for the prevention of damage due to bank erosion, and were not essential to the carrying out of a navigation project, or for the protection of levees to be installed for flood protection.

There has, unfortunately, been considerable misunderstanding of the role of the Federal Government in bank protection. This appears to stem from the fact that the Congress has not enacted, for bank protection, general legislation comparable to that authorizing the navigation and flood control activities of the Federal Government. Rather, the Congress has chosen to handle bank protection on a case by case basis. The confusion is probably compounded by the fact that most bank protection projects are proposed in reports prepared pursuant to authorities provided by the Flood Control Acts. This does not mean that all measures recommended in such reports are for the purpose of reducing flood damages. The Congress has indicated in many ways over a long period of years that when the Corps of Engineers prepares a plan for a given stream, or river basin, it is expected to consider all important water problems and to submit to Congress a comprehensive plan proposing solutions for all such problems if, in the opinions of the Chief of Engineers and the Secretary of the Army, Federal action is essential and is justified. When such plans are placed before the Congress that body decides whether or not it wishes to authorize components of the plan which are for purposes other than navigation or flood control. The law authorizing the carrying out of a specific plan is the basic legislation, and it is not necessary that Congress enact general bank protection

legislation to make it possible for the Federal Government to participate in bank protection work. Many Federal policies are established over the years by repeated authorization of certain types of activities, and by this means the Congress has made it clear beyond any shadow of a doubt that it is a Federal policy to participate in bank protection works at such places, and under such conditions, as the Congress may specify in legislation authorizing individual projects.

This is not to say that general legislation would not be desirable. The enactment of legislation expressing the intent of Congress would be useful in eliminating the confusion and misunderstanding which gives rise to statements such as that appearing in the Bureau of the Budget's letter on the Red River Report. Moreover, it could be useful to the Executive Branch by establishing a cost-sharing policy for bank protection. The latter would insure uniform and equitable treatment of the various areas for which the Congress authorizes bank protection projects.

For the purpose of answering the specific question, however, it may be said: (1) that there are adequate authorities and precedents for recommending that Congress authorize bank protection projects; and, (2) that there are adequate precedents for Congressional authorization of such projects.

Mr. BLATNIK. At least the total Federal cost would run close to \$200 million, \$193 million. That is a big operation. In addition to the more detailed justification on bank stabilization itself, the need for it, does that open a door for bank stabilization up the entire Mississippi River Basin, or Missouri River Basin and other river basins—I think we ought to give that more consideration. If we were to break this project down into navigation, that would include a river route all the way from the mouth of the river valley where it joins the Mississippi, and all the way back to Daingerfield.

Colonel HALL. Yes, sir. That is the navigation portion of the project. It has associated bank stabilization also, between the mouth and Shreveport, La.

Mr. BLATNIK. That is about \$278 million of Federal cost. Is there any navigation from Shreveport north toward Index?

Colonel HALL. No, sir. There is no navigation feature included in this recommendation above Shreveport on the Red River. The navigation feature at Shreveport takes off by Cypress and Twelvemile Bayous up to Daingerfield, Tex. The feasibility of a navigation channel via the Red River from Shreveport upstream to Denison Dam was considered. However, a preliminary investigation indicated the potential benefits were considerably less than the costs and not economically justified.

Mr. BLATNIK. We did not consider approving authorization; we approved navigation, whole navigation reach and have representation for further study on the bank stabilization part of this project. Is there any reason why these two should be together?

Colonel HALL. You mean the bank stabilization features?

Mr. BLATNIK. Yes, the bank stabilization and upper reaches of the Red River Valley and navigation including Cypress Bayou.

Colonel HALL. If the Congress did want to break it up, of course it could; but we feel like the project, each segment, is individually justified and it was considered as an interim report on the comprehensive plan of the Red River, which is scheduled to be completed sometime this summer.

Mr. BLATNIK. Mr. Harsha.

Mr. HARSHA. I am not sure if I understand the navigation features of this. According to this sheet I have, you have navigation from the Mississippi River to Shreveport.

Colonel HALL. Yes, sir.

Mr. BLATNIK. Use the small map.

Mr. HARSHA. And that is \$148 million.

Colonel HALL. That is correct.

Mr. HARSHA. In round figures, that is.

Then you have from Shreveport to Daingerfield, more navigation, \$130 million, roughly?

Colonel HALL. Yes, sir.

Mr. HARSHA. What do you propose to do first at Shreveport to improve the navigation from the mouth to Shreveport?

Colonel HALL. It would be a series of locks and dams, sir—five locks and dams to get navigation to Shreveport with associated channel improvement. And then from Shreveport to Daingerfield would be four more locks and dams to get the required lift to Daingerfield, Tex.

Mr. HARSHA. All right.

Then the bank stabilization part of it is from Cypress—from Shreveport, is it?

Mr. BLATNIK. Yes.

Mr. HARSHA. Up to Denison Dam?

Colonel HALL. Shreveport to Index, and Index to Denison. Stabilization would not be associated with navigation in these reaches but the reach from Shreveport to Index is associated with flood control features. There is stabilization in the reach directly associated with navigation features from the mouth of the Mississippi to Shreveport. Stabilization is not recommended in the authorization from Shreveport to Daingerfield.

Mr. HARSHA. Now, is there any local participation in the bank stabilization for the mouth of the Mississippi to Shreveport?

Colonel HALL. Stabilization from Mississippi River to Shreveport, on bank stabilization, non-Federal cost is shown on page 2, sir, \$7,712,000.

Mr. HARSHA. That is solely for bank stabilization participation?

Colonel HALL. Yes, sir.

Mr. HARSHA. You have got \$7.8 million of the \$148 million? Maybe that is not right. Is \$148 million all navigation?

Colonel HALL. Federal cost for navigation from Shreveport to the Mississippi River to Shreveport, non-Federal cost in addition to that previously quoted would be another \$7.8 million in round figures.

Mr. HARSHA. That is for navigation participation?

Colonel HALL. Yes, sir.

Mr. HARSHA. What is the local participation for bank stabilization on that same reach?

Colonel HALL. In the top portion under bank stabilization, \$7.7 million; so the total for that reach would be roughly \$15.5 million, the sum of the two.

Mr. HARSHA. And the Federal portion for bank stabilization is \$86 million?

Colonel HALL. Yes, sir.

Mr. HARSHA. Now, what is the general formula for local participation in solely bank stabilization matters?

Colonel HALL. The bank stabilization from the Mississippi River to—

Mr. HARSHA. Shreveport.

Colonel HALL. It is the land, easements, and rights-of-way, normal provisions of local cooperation.

Operation and maintenance of this feature would be a Federal responsibility.

Mr. HARSHA. You have no particular formula or proportion of the project that local interests must participate in?

Colonel HALL. There is no fixed or arbitrary percentage. It is determined by the estimated cost of these items.

It is not an arbitrary 30 percent, for example.

Mr. HARSHA. Now, the total ball of wax costs around \$523 million?

Colonel HALL. Yes, sir.

Mr. HARSHA. That is on the price level of 1964?

Colonel HALL. Yes, sir.

Mr. HARSHA. Does that include interest?

Colonel HALL. That is initial estimated cost, sir. The annual cost—

Mr. HARSHA. No, no. I want the project cost.

Colonel HALL. Approximately \$523 million.

Mr. HARSHA. Does that include interest?

Colonel HALL. No, sir.

Mr. HARSHA. And we have that for how long a period?

Colonel HALL. Well, the navigation features were estimated on a 50-year life, and the remaining features on a 100-year life.

Mr. HARSHA. Hundred-year life?

Colonel HALL. Yes, sir.

Mr. HARSHA. And do you have there available the total interest that it would cost the Government on that total package?

Colonel HALL. I do not have it in total figures, sir. We can supply that for the record.

Mr. HARSHA. Could you do that?

Colonel HALL. It is borne out in the interest and amortization on an annual basis.

Mr. HARSHA. That is $3\frac{1}{8}$ percent?

Colonel HALL. Yes, sir.

Mr. HARSHA. I would like to have total interest cost, so I can get some costs to the Federal Government on the entire project.

(Information requested follows:)

The interest during the construction period for this project amounts to \$22,253,000 of which \$21,163,000 would be on the Federal first costs and \$1,090,000 on the non-Federal first costs. This interest is included in the economic analysis used to arrive at the benefit-to-cost ratios presented for this project.

Mr. HARSHA. You have a price level of 1964. How much has that increased in the last 4 years?

Colonel HALL. About 5 percent per year, sir.

Mr. HARSHA. Per year?

Colonel HALL. Yes, sir.

Mr. HARSHA. Now, as I have it, the navigation feature from Shreveport to Daingerfield has a cost-benefit ratio of 1.05 to 1, is that right?

Colonel HALL. That is correct, sir.

Mr. HARSHA. That is all I have, Mr. Chairman.

Mr. BLATNIK. No further questions. We have our colleague, Mr. Dorn, here, who is interested in the Cooper River.

COOPER RIVER, CHARLESTON HARBOR, S.C.

You heard testimony by Chairman Mendel Rivers. Could we jump to Cooper River? I do not think it is going much out of order.

Mr. DORN. Mr. Chairman, I would be deeply grateful, because I have an appointment with Mr. Mills, and you know how that is. I would like to keep that one.

Mr. BLATNIK. We appreciate your standing by and waiting for some time, Congressman.

Do you want to make an opening statement?

Mr. DORN. May I have your permission to extend at this point in the record the statement of my own, supplementing what Mr. Rivers said?

Mr. BLATNIK. Without objection, so ordered.
(Statement follows:)

STATEMENT OF HON. WM. JENNINGS BRYAN DORN, A REPRESENTATIVE IN
CONGRESS FROM THE STATE OF SOUTH CAROLINA

Mr. Chairman and my fellow Members of the Rivers and Harbors Subcommittee, I want to add my strong endorsement of the Corps of Engineers' recommendations for the St. Stephen project to that of my distinguished and beloved colleague Mr. Rivers, in whose congressional district this entire project is located. This project is one of great importance, not only to the people of Charleston, but to all the people of South Carolina, including the people of my district.

This project is urgently needed to correct an existing condition, a chemical phenomenon which results in depositing a great silt load into Charleston Harbor from the waters of the Santee and the Cooper Rivers. Charleston Harbor is one of the great harbors on the Atlantic Coast, and is vital both to commerce and to the support of national defense activities. As a member of the South Carolina legislature, I helped create the South Carolina Ports Authority, which is charged with the responsibility for the use and development of the harbor. I have watched it grow in importance from year to year, and I have also watched with great concern the mounting problem of silt deposits in the harbor which presents an ever-growing burden and a threat to harbor use.

The Federal Government has an enormous stake in Charleston Harbor. The needs of commerce and of defense require harbor deepening and improvement. The siltation problem must be solved, not postponed.

The Corps of Engineers, after years of study, including model tests, and after looking at all alternatives, has presented a solution. It would stabilize the harbor, reduce siltation to normal and manageable dimensions, and enable the Charleston Harbor to continue to serve the needs of South Carolina and the Nation.

One of the most valuable and constructive features of the Corps' recommendations is the so-called "early implementation" feature. The St. Stephen project would reduce the flow at the Pinopolis hydroelectric plant of the South Carolina Public Service Authority from 15,600 cubic feet per second on the average, to 3,000 cubic feet per second, with a reduction of power output at Pinopolis of more than a half-billion kilowatt hours a year. The proposal is to divert the water immediately and to replace the power losses of the Authority by purchasing power from other sources, at a cost not to exceed the average savings in dredging expense. This would permit the process of harbor stabilization, which may take a decade, to begin at once instead of beginning only when St. Stephen dam and power plant is completed.

The Bureau of the Budget has limited its approval for the present to the "early implementation" feature, to end on April 1, 1976, when the Authority's FPC license for the Pinopolis plant comes up for renewal. This makes no sense at all. By 1976 we shall have spent about \$20 million for spilling water, and have nothing to show for it. We will not have made even a start on a long-term solution.

The South Carolina Public Service Authority has cooperated fully in the development of the Corps' recommendations and will cooperate fully in its implementation, asking only that it be kept whole. The Authority is a public

agency, a creature of the State of South Carolina, providing a vital service to the farmers and small communities in a large area of South Carolina. I do not think we want to try to cripple this agency. And I do not see how we can fairly ask the Authority to cooperate in early implementation, if at the end of the road there is only a threat of confiscation of the benefits of its Pinopolis plant. If the Bureau of the Budget's recommendation were to prevail, nothing would be accomplished, nothing would be solved, no solution to the Charleston Harbor silting problem would be possible, and the Congress would continue to pour millions of dollars into silt removal every year, when there is at hand a fair and well-thought-out solution. This is a constructive solution, which avoids the waste of a valuable hydroelectric resource. It has a high benefit-cost ratio, over two to one.

I urge the Subcommittee to approve this solution, as recommended by the Corps.

Mr. DORN. Mr. Chairman, I am familiar with this project. It causes great concern to the entire State of South Carolina. But Charleston is the port for the State. When I was in the State senate, I helped create this port authority at Charleston, because of its benefit to the entire industrial and agricultural complex in the State. We are moving a lot of soybeans through there now, as well as other products from my district and other congressional districts all over the State. We are concerned about this dredging problem at Charleston. A chemical reaction that takes place when this water comes down from the Santee-Cooper Reservoir up there and hits the salt water in Charleston Harbor.

It provides a silver/chemical reaction that is causing great concern to the city and to the State administrations, and to the entire State of South Carolina. I just hope something can be done.

Mr. BLATNIK. The benefit-cost ratio is 2.1 to 1. The comments are all in by the Federal agencies, they are all favorable.

Colonel, proceed; I think you can summarize this project and outline the nature of the project and the reasons.

STATEMENT OF COL. RICHARD L. SEIDEL, CORPS OF ENGINEERS, WASHINGTON, D.C.—Resumed

Colonel SEIDEL. The proposed plan redirects Santee River waters from above Pinopolis Dam into the lower Santee River Basin through a new canal. A federally constructed hydroelectric plant of 84,000 kilowatts capacity would use the diverted flow to generate power to compensate for limiting flow through the existing Pinopolis plant of the South Carolina Public Service Authority.

The plan also provides for limiting flows at Pinopolis prior to construction of the new Federal plant. The authority would be reimbursed for the power lost in an amount not to exceed the estimated average annual reductions in Federal cost for maintaining Charleston Harbor.

The estimated Federal cost is \$35,381,000 including provisional fish and wildlife features. The benefit-cost ratio is 2.1.

Comments of the State and Federal agencies are favorable.

The Bureau of the Budget recommends against authorization of the project at this time but does not object to the Corps of Engineers being authorized to enter into an early implementation agreement with the State public authority providing the cost does not exceed the benefits of reduced dredging and the agreement would not extend beyond April 1, 1976.

Mr. Chairman, this concludes my statement.

Mr. BLATNIK. Would you show us on the map one more time the redirection? Essentially what does the project do? It redirects the waters from where to where, the shoaling up at Charleston Harbor?

Colonel SEIDEL. The water would be diverted from Lake Moultrie through a new canal north of St. Stephen and empty into the lower Santee River Basin.

Mr. BLATNIK. And flow right on out?

Colonel SEIDEL. Yes, sir.

Mr. BLATNIK. We are not concerned at this point with the so-called route B?

Colonel SEIDEL. No, sir. That was an alternative that was studied.

Mr. BLATNIK. The Corps of Engineers approves, you are in favor of this proposal?

Colonel SEIDEL. Yes, sir.

Mr. BLATNIK. I am not clear. We asked what the Bureau of the Budget meant by the language, and would you be able to enlighten us a little bit on that, or maybe someone on the staff can.

Colonel SEIDEL. Sir, our plan contains a recommendation for using the estimated savings in maintenance dredging that will result from the project to purchase power and reimburse the authority for restricting their generating plant at Pinopolis. It is estimated that it will take 10 years for the harbor to stabilize once we have reduced the flows. We can, through this early implementation concept, using the anticipated savings, start the period of the stabilization earlier, so that we reach the ultimate stabilization and the benefits of reduced dredging cost at an early date.

Mr. BLATNIK. Am I correct that the big difference actually is not on the need for corrective action, but it is merely a matter of timing, is that correct?

Colonel SEIDEL. Yes, sir. The Budget Bureau has picked the April 1, 1976, date, which is the time the Federal Power Commission license for the Pinopolis Dam would be up for renewal.

Mr. BLATNIK. Does the Corps of Engineers feel that it would be more beneficial to start the project underway as soon as possible?

Colonel SEIDEL. Yes, sir.

Mr. BLATNIK. Mr. Harsha.

Mr. HARSHA. Colonel, I am interested in why the Corps of Engineers—first, let me get this—what is Santee-Cooper? What is it? Is it a public body?

Colonel SEIDEL. Yes, sir; it is a State agency.

Mr. HARSHA. Can you give me a little more description on definition of it?

Colonel SEIDEL. Sir, Mr. Arnold Taylor of our Engineering Division has been working with the project and will address this question.

It is an agency established by the State of South Carolina by legislative action in 1934. It was created to develop the Cooper Santee and Congaree Rivers in the State. The report has a statement about the general powers and limitations of the authority.

Mr. DORN. Mr. Harsha, it is created, the Santee-Cooper Authority was created by the Legislature of the State of South Carolina. They handle the sale of power from the Pinopolis Lake there, which was built in the late 1930's with a loan from the Federal Government.

There are two lakes there. And the principal benefit, actually, has been recreation.

But this is the public service authority of the State of South Carolina, which handles the sale of this power. But, unfortunately, the strange chemical reaction has resulted from this water coming into Charleston Harbor. It formerly went up north of there, Colonel.

This situation was not foreseen by any engineers at the time, or anybody else; and it is just a peculiar chemical reaction from the water coming out of these lakes into Charleston Harbor.

Go ahead, Mr. Harsha.

Mr. HARSHA. Thank you, Mr. Dorn.

Where is the powerplant that was built there?

Colonel SEIDEL. Sir, it is at the southern end of Lake Moultrie, Pinopolis Dam.

Mr. HARSHA. Who constructed there?

Colonel SEIDEL. The authority, sir.

Mr. HARSHA. From Federal funds?

Mr. TAYLOR. WPA relief funds and PWA grant and bonds were used.

Mr. BLATNIK. Speak more loudly; the reporter cannot get all of this down.

Mr. TAYLOR. It was a public works project that was a combination of loans, grants, and I think some local contributions also.

Mr. HARSHA. Well, then, how much of it was a Federal grant?

Mr. TAYLOR. The total Federal grant amounted to \$34.8 million. Of this amount, \$23.5 million was a Federal grant and \$11.3 million was WPA relief funds. A Federal loan was also made and amounted to \$29.5 million, making a total of \$64.3 million. I understand that about one-third of the loan has been paid off.

Mr. HARSHA. If this was built with Federal money to start with, why do we have to repay the Santee-Cooper Authority for this plant when we built it initially?

Colonel SEIDEL. Sir, the purpose of our project is to reduce the cost of the dredging to us in maintaining Charleston Harbor. This cost is now estimated at \$2.5 million a year. It is expected to reach \$3.2 million by 1975 and will continue upward.

Mr. HARSHA. Well, has the powerplant, the operation of the powerplant, in any way contributed to the problems with the harbor?

Colonel SEIDEL. Sir, we have determined in our study that the flows that have been diverted from the old Santee Basin through the lake and go through the Pinopolis plant, do introduce a new silt load.

Mr. HARSHA. What portion of this damage, then, do you assess to Santee-Cooper? I mean, they are the sole beneficiaries of the diversion, are they not?

Colonel SEIDEL. No, sir.

They are the beneficiaries in the sense of our building a replacement plant for the portion of the powerplant that they will not be permitted to use under the rediversion project.

However, the Government is going to be the beneficiary in the sense that we will reduce our cost of maintaining Charleston Harbor from an average of \$3.7 million annually to \$1.2 million in the life of the project between 1975 and 2024.

The Government will not have to spend \$2.5 million for dredging.

Mr. HARSHA. But the point I am trying to get at, the powerplant benefits from the diversion of the water through the lakes and into this channel, into this Charleston——

Colonel SEIDEL. As it exists now; yes, sir. They use it to generate power.

Mr. HARSHA. And the diversion was done so that generation of power could be possible.

Colonel SEIDEL. Yes, sir.

Mr. HARSHA. They were the sole beneficiaries?

Colonel SEIDEL. Yes, sir.

Mr. HARSHA. And they are the cause of the silting of the Charleston Harbor there?

Colonel SEIDEL. We know that now, sir. At the time that the license application was made and the Federal Power Commission and the corps, all other interested agencies reviewed the application, we had no idea that this diversion would cause the situation that we have now.

We have only learned this recently through many years of model studies.

Mr. HARSHA. All right. I am not finding fault with you for building it; that is a result of some unforeseen circumstance, that you have this condition. The fact is that the prime beneficiary of this project is the power company or the power authority, the people that make and sell the power?

Colonel SEIDEL. No, sir.

Mr. HARSHA. Had they not been there, you would not have had the silting, because you would not have had the need for the diversion?

Colonel SEIDEL. Probably not.

Mr. HARSHA. Why do they not share in the replacement cost of this project?

Why is it all our problem? In other words, if I were up there silting Charleston Harbor, I am sure that you would either get an injunction against me to make me stop doing it or make me participate in some way to recoup the loss the Federal Government has, to keep it dredged out.

Colonel SEIDEL. Since they were issued a proper license, and since they have always operated in accordance with that license, we feel that there is no liability on the part of the power company, sir.

Mr. HARSHA. But we built it for them, to start with, with Federal money; and they caused the problem. Now you want to build them a new plant with Federal money. What would be the cost of the alternate plan recommended by the Bureau of the Budget?

Colonel SEIDEL. Sir, the Bureau of the Budget at this times does not recommend any construction.

Mr. HARSHA. They did not recommend any?

Colonel SEIDEL. No, sir. They recommend that we cut back the flows, and to do this, that we provide a reimbursement for power that would be lost by the closing down of the Pinopolis plant.

Mr. BLATNIK. What would be the annual estimated power reimbursement cost for the interim period?

Colonel SEIDEL. We estimate our savings, and this would be the limit that we could spend at \$2.5 million a year, on the average.

Mr. BLATNIK. That \$2.5 million would be the savings on your harbor dredging if you had your program?

Colonel SEIDEL. Yes, sir. And we estimate that this is the average savings that we will have and the report sets up the average savings as a limit on the funds.

Mr. BLATNIK. I am a little bit twisted up on this. Right now it is costing the Corps of Engineers about \$3.7 million a year for maintenance of the Charleston Harbor; is that not right?

Colonel SEIDEL. At the present moment, that is not correct, sir; at the present moment the Corps is spending about \$2.5 million. It is estimated that between the period of 1975 and 2024, which is the effective life of this project, that our annual cost would be \$3.7 million for dredging.

Mr. BLATNIK. For the interim plan to reimburse the power company until 1976—how much do you anticipate the reimbursement would amount to each year?

Colonel SEIDEL. On the average of \$2.5 million, sir. As the channel stabilized, we would accumulate a reduction in our dredging cost that would ultimately reach the \$2.5 million.

Mr. DORN. Would the gentleman yield?

Colonel, the truth is, you are just faced with a realistic or, rather, a given situation, which is that it is increasing every year, increasing cost to the taxpayers to dredge Charleston Harbor?

Colonel SEIDEL. Yes, sir.

Mr. DORN. And there is nothing you can do about this, regardless of how it happened, there is nothing we can do about the fact that this silt is being deposited in Charleston Harbor at an increased rate. And your responsibility, our responsibility, is to keep the harbor dredged. And the fact that it is costing \$2.7 million now and will cost over \$3 million in a few years, is given situation that warrants our consideration to do something about it at this time. I, too, have a little bit of doubt about how all this happened, why it happened, and how it started, but, nevertheless, we are faced with a given fact, a given situation, and the harbor is filling up.

Mr. BLATNIK. Congressman, if we follow the Bureau of the Budget's program for this interim period, although you shift, you might save on your dredging and maintenance costs, you have to refund or reimburse the power company—the total cost would be around \$2.5 million a year, over an 8-year period it is \$20 million; \$20 million. You are right where we are today. I do not see how we save time or money.

Mr. DORN. Mr. Chairman, that is exactly the way I look at it.

Colonel, you might very briefly, for about 30 seconds, explain this silt deposit. It is not the kind of silt that most of the members of the committee are thinking about. It is this fresh water. Would you explain that? I have had it explained to me by the colonel at Charleston.

Colonel SEIDEL. Yes, sir.

Mr. DORN. It is not really silt. It is a chemical formation that takes place there.

Colonel SEIDEL. It is a flocculation, really. The material is carried down in the fresh water.

Mr. BLATNIK. What is the chemical name of the material? Is it a clay?

STATEMENT OF JOHN B. McALEER, OFFICE, CHIEF OF ENGINEERS

Mr. McALEER. It is a clay silt. Just to follow the problem very briefly, originally the Cooper River had a very small drainage area. There was little silt load coming down into the harbor with a small amount of fresh water, and there was mixing, vertical mixing of fresh and salt water. When the Santee River, with its large drainage area, was diverted originally back in 1942 down through this area, the lighter fresh water came out on the top; and the salt water then intruded on the bottom, and this meant that the silt load, clay silts down from the river, as they hit the salt water in the harbor, along the plane of stratification, with fresh water on top and salt water underneath, it flocculated the sediments out, like in a sewage treatment plant, and the sediments settled to the bottom of the harbor.

Now, the result of this is that there is now an upstream drift on the bottom, in other words, like a cold draft heavy salt water moves upstream on the bottom. It traps the sediments that come down the river. So that we feel that redirecting the flows to the Santee River restores the natural condition in this river, and this is a sound engineering solution.

Once you redirect it back into the Santee River, you can no longer generate a large amount of power at this Pinopolis plant, so you might as well make the most of this water, and generate the power.

So I think the first thing is that we feel that in this plan we have a sound engineering solution for the dredging problem, and that is a Federal dredging cost. We would replace the power losses to the power authority, and the State power authority would pay the betterments that result from this new plant, so the power authority would be paying about one-third of the cost of the new plant.

Mr. HARSHA. Colonel, what would it cost the Federal Government to reduce the flow of water through Pinopolis, thereby reducing the silting at Charleston and buy power to replace the loss of power due to reduction of flow?

Colonel SEIDEL. Sir, in our plan we have set upon ourselves a limitation that the funds used to reimburse for the power loss should not exceed what we estimate would be our reduction in maintenance costs. This is the figure of \$2.5 million.

Mr. HARSHA. Just answer my question. What does it cost you to buy power to replace the power you lost by reducing the flow?

Colonel SEIDEL. Sir, we are not sure. We are not sure at this point that the power is available to be purchased. This is an item that would have to be negotiated.

Mr. HARSHA. Why are you not sure?

Colonel SEIDEL. At the time we made our studies it was indicated that the power would not be available. However, this was a number of years ago, and the situation may have changed.

This is a large block of power, sir. We are speaking in terms of—

Mr. HARSHA. Where did the Bureau of the Budget determine that it would be cheaper to buy power until 1976 than replace the power? Where did it get its figures?

Colonel SEIDEL. Sir, in our report, we explained, as I am doing now, that if the power were available and could be purchased, that the early

implementation would be an excellent idea, so that we would have early stabilization of the harbor.

Mr. HARSHA. The Bureau of the Budget said you could do it cheaper by reducing the flow and buying power and selling it to the Authority, did they not?

Colonel SEIDEL. They are offering an interim solution, sir.

Mr. HARSHA. That is right.

Colonel SEIDEL. They are not offering a permanent solution. They are offering a solution until such time as the relicensing occurs.

Mr. HARSHA. I know that; but where did they get the figure on the price of power to do that?

General NOBLE. May I speak to that?

Mr. HARSHA. Sure.

General NOBLE. The Corps of Engineers solution is quite independent from the early implementation concept. The early implementation concept was added to it. In other words, if the power is available, the Chief's report says, "Let's start it earlier, so we gain the benefits from the projects earlier." The BOB picked this up and said, "Rather than do the project at all, just do the early implementation concept." They did not investigate the availability of the power. So they do not know any more than we do right now whether that power will be available.

Mr. HARSHA. Well, the other body put that in their bill.

General NOBLE. Excuse me?

Mr. HARSHA. The Senate has it in their bill.

General NOBLE. The BOB concept?

Mr. HARSHA. Yes, sir.

General NOBLE. To answer your question, the BOB got it from our report, which set this up as a good idea if the power is available. They picked it up and said, "Let's do that."

Mr. HARSHA. You have no idea what it would cost?

General NOBLE. No, sir; we do not have.

We do not even know if the power is available. As Colonel Seidel said, we have set up as a limit that we will not execute this early implementation concept to any greater degree than the savings in dredging.

So whatever power we could get for that savings would be employed in the early implementation concept, until the project is complete.

Colonel SEIDEL. May I further address that?

Mr. HARSHA. Sure.

Colonel SEIDEL. Based on the reports that the authority made to the Federal Power Commission, in 1965 they were able to purchase a block of power in the quantity we are talking about, for about 5.3 mills per kilowatt-hour. This was 1965. The quantity of power that we are talking about at that rate would cost, if it were available today, \$2.8 million.

Mr. HARSHA. \$2.8?

Colonel SEIDEL. \$2.8.

Mr. HARSHA. I think you find since 1965 that the power costs have gone down, rather than increased. But then that would stop the silting of the harbor?

Colonel SEIDEL. Yes, sir. Once we limit the flow—

Mr. HARSHA. You would be spending \$2.8 million if the cost did not go down; I think they will be. Let us, for argument's sake, say they

did not, as opposed to, in the next 4 or 5 years, \$3.7 million to keep dredging it out; right?

Colonel SEIDEL. We would have a gradual decrease in the dredging costs as the channel stabilized. We would have to have additional maintenance money to purchase the power.

Mr. HARSHA. But the point is this, you are claiming now that you have \$2.5 million annual dredging cost. That is going to go up to \$3.8—\$3.7, whatever it is; and continue to get worse?

Colonel SEIDEL. Yes, sir.

Mr. HARSHA. Now, if you stopped the silting, by stopping the power, the flow through the power dam, then you eliminate that cost altogether of dredging?

Colonel SEIDEL. It would go down to \$1.2 million. We will always have that residual cost.

Mr. HARSHA. You will always have that?

Colonel SEIDEL. Yes, sir; even after the project we are recommending.

Mr. HARSHA. Well then, you are only talking about the difference, are you not?

Colonel SEIDEL. The \$2.5 million figure. This is the difference between the cost of dredging without the project and beyond the year 1976, and the cost of dredging with the project.

Mr. HARSHA. Well, at any rate, if you eliminate the silting down the Cooper River and have to buy power, then you are going to have about the same amount of money invested in power each year as you would have in dredging?

Colonel SEIDEL. Yes, sir. It is a trade from one pocket to the other.

Mr. HARSHA. In other words, you would not have to spend the \$35 million to build the new project if you did it this other way?

Colonel SEIDEL. This is a solution, yes, sir; up to 1976, because we are limited, as has been suggested.

Mr. HARSHA. If you limit it to that particular period, but if the permit is renewed after that, it will continue the same way, will it not?

Colonel SEIDEL. We cannot predict what the Federal Power Commission will do under new licensing.

Mr. HARSHA. What is this route B diversion that you have got up there?

Colonel SEIDEL. This was an alternative that was studied that would divert the flows from a point below the dam and would have no impact on the Pinopolis operation. It would reduce the siltation.

Mr. HARSHA. What would that cost?

Mr. McEWEN. Would the gentleman yield?

That would be a new dam on that route B, where it indicates lock and dam? That would be a new dam constructed in relation to this new route B diversion?

Colonel SEIDEL. Yes, sir.

Mr. HARSHA. And a new powerplant?

Colonel SEIDEL. No, sir. That would not have an impact on the powerplant.

Mr. DORN. What would that cost, Colonel?

Colonel SEIDEL. Sir, this cost was estimated to be \$40 million.

Mr. DORN. That is more than the plan for the—

Mr. HARSHA. That is more than the other one.

Colonel SEIDEL. The B-C ratio was unfavorable, 0.9.

Mr. HARSHA. Under your recommended plan, you divert it down the Santee River, and it comes out where?

Colonel SEIDEL. As shown on the map, sir, the original Santee Basin, as it existed prior to the time that the Santee was diverted to create the Lake Moultrie and Lake Marion.

Mr. HARSHA. Is there a harbor there now?

Colonel SEIDEL. No, sir.

Mr. HARSHA. What is there, anything at all?

Mr. McALEER. Very large marsh areas, wildlife, fishing and hunting areas; and things of that sort.

Very valuable from the natural resource angle.

Mr. HARSHA. What are you going to do to that?

Mr. McALEER. It will improve, tend to restore the conditions that prevailed when the river originally went this way; and the Fish and Wildlife Service is considering the formation of a new wildlife refuge in this area.

Mr. HARSHA. Do you have in your figures there how much power you would have to purchase to reduce the average flow to 3,000 cubic feet per second?

Colonel SEIDEL. 530 million kilowatt hours.

Mr. HARSHA. 530 million kilowatt hours?

Colonel SEIDEL. Yes, sir.

Mr. HARSHA. How do you arrive at that?

Colonel SEIDEL. Sir, at the present time we have an average annual energy production at the Pinopolis Dam of 657 million kilowatt hours.

Mr. McEWEN. What is the kilowatt capacity?

Colonel SEIDEL. 128,000 kilowatts. We will be producing, after the closedown, 129 million kilowatt hours. So the difference between the 657 and the 129 is the 530.

Mr. HARSHA. OK. That is all.

Mr. McEWEN. Mr. Chairman.

Mr. BLATNIK. Mr. McEwen.

Mr. McEWEN. Colonel, I would like to understand this, if I could. I am not familiar with this waterway.

Originally, Colonel, Lake Marion was part of the Santee River drainage basin; is that correct?

Colonel SEIDEL. Yes, sir; that is correct.

Mr. McEWEN. And the Santee River or tributaries of that extend further inland from Lake Marion; is that right?

Colonel SEIDEL. Yes, sir.

Mr. McEWEN. Was Lake Marion formed at the time the Santee spillway was constructed, or was that an existing wide body on the Santee River?

Colonel SEIDEL. It was created by the spillway.

Mr. McEWEN. That spillway created Lake Marion on the Santee River?

Colonel SEIDEL. Yes, sir.

Mr. McEWEN. At the time that spillway was constructed, there was a channel cut from Lake Marion to Lake Moultrie; is that correct?

Colonel SEIDEL. That is correct.

Mr. McEWEN. And the Pinopolis hydroplant was put in?

Colonel SEIDEL. The dam was constructed, and that created Lake Moultrie, sir.

Mr. McEWEN. Created Lake Moultrie, and the generating facilities are at Pinopolis?

Colonel SEIDEL. That is right.

Mr. McEWEN. So there was a controlled dam or spillway on the Santee and the power dam at the foot of Lake Moultrie. Now, what was the flow of water in the Cooper River prior to the diversion of waters from the Santee through this formed Lake Moultrie-Cooper system?

Mr. McALEER. Very small, sir; in the order of maybe 500 to 1,000 cubic feet per second.

Mr. McEWEN. 500 to 1,000 cubic feet per second?

Mr. McALEER. Very small.

Mr. DORN. I would say it was even less than that. This river was largely subject to tide and all of that, and of course there was some water coming down the river.

Mr. McEWEN. Where were the headwaters of the Cooper River, in the area of the present Lake Moultrie?

Mr. DORN. Lake Moultrie. That is the way it started.

Mr. McEWEN. Was there a Lake Moultrie there before the dam?

Mr. DORN. No lake before at all.

Mr. McEWEN. It was in that area?

Mr. DORN. In that area.

Mr. McEWEN. This was quite a short—

Mr. DORN. Very short—Santee is a huge river. It drains my district and all the entire western part of the State. This Cooper River was a very short river.

Mr. McEWEN. What is the total cubic feet per second of the Santee River?

Colonel SEIDEL. Sir, the Santee, we maintain 500 cubic feet per second at all times.

Mr. McEWEN. You maintain 500 cubic feet per second; and if you did not divert into Lake Moultrie it would be—

Colonel SEIDEL. When we divert, sir, if our project is approved, we will have an average flow of about 12,500, which is about what it was prior to the original diversion.

Mr. McEWEN. This is with this diversion plan of a canal around St. Stephen?

Colonel SEIDEL. Yes, sir.

Mr. McEWEN. That will reduce the Cooper to—

Colonel SEIDEL. 3,000 cubic feet per second.

Mr. McEWEN. 3,000 cubic feet per second. So if the Cooper was originally around 500 cubic feet per second, it will be 2,500 above what it originally was, and the Santee, which is now around 500, will go up to 13,000; is that correct?

Colonel SEIDEL. Yes, sir.

Mr. McEWEN. Now, coming to Charleston Harbor. What was your problem there at the time that the Cooper River was carrying a flow of about 500 cubic feet per second? Did you have any substantial dredging to do then?

How many years am I going back on this question?

Mr. DORN. 1942 is when the diversion took place, so it is about 25 or 26 years.

Colonel SEIDEL. Sir, our first records of maintenance dredging started in 1925. And we had figures of \$36,000, \$43,000, and so on. These are thousands of dollars for dredging by the corps.

Mr. McEWEN. What was the largest amount up until this change and diversion of water into the Cooper?

Colonel SEIDEL. In 1938, sir, we spent \$105,838.

Mr. McEWEN. That was the largest amount?

Colonel SEIDEL. Yes, sir.

Mr. McEWEN. And your average amount, if you can make a quick estimate, Colonel, would have been what, \$60,000 or \$70,000, possibly in that neighborhood?

Colonel SEIDEL. About \$70,000 or \$80,000, sir.

Mr. McEWEN. About \$70,000 or \$80,000. Do you have any cost index that would enable you to project what an annual cost of \$70,000 or \$80,000 in that period would be today?

Colonel SEIDEL. Three to four times would be the best guesstimate I could give, sir.

Mr. McEWEN. Three to four times. So if we take your higher figure of \$80,000, you would be talking \$240,000 to \$320,000, something in that neighborhood, a year; in other words, it is fair to assume, then, that the corps will still have dredging work to do in Charleston Harbor even with this diversion; is that not correct?

Colonel SEIDEL. That is correct.

This is the figure that I addressed myself to when I said that if our project was constructed, that we would still have a requirement for an estimated \$1.2 million maintenance cost in Charleston Harbor on an annual basis.

Mr. McEWEN. And that, I assume, is because the Cooper is not going back to its original 500 cubic feet per second, but is going to carry, as you say, around 3,000?

Colonel SEIDEL. Yes, sir.

That plus the fact that we have now a 35-foot project depth that we maintain, and we will have a requirement for a 40-foot national defense channel. We have deepened the river considerably from what it used to be.

Mr. DORN. Colonel, you do have increased defense activity, too?

Colonel SEIDEL. Yes, sir.

Mr. DORN. The Polaris submarine base.

Mr. McEWEN. There is defense activity in Charleston Harbor?

Mr. DORN. Very much.

Mr. McEWEN. Colonel, if you put the route B redirection in, would you have a silting problem at the mouth of that channel?

Mr. McALEER. Inlets to the ocean through the sand areas are always a problem. They meander or move, they clog up so that cutting a new channel through here would create a new inlet problem with many unknown elements in it.

Mr. DORN. But actually the area where the proposed alternate route is there for the channel, from there on up above, from right there on above the old original bed of the Santee River is just about as wild as the Congo, if you want to know the truth about it.

All through there is just absolutely nothing but marshes.

Mr. McEWEN. Where in this area is the inland waterway along the coast?

Colonel SEIDEL. As pointed out—parallel to the coast.

Mr. McEWEN. In other words, that route B diversion would cross the waterways—

Colonel SEIDEL. Yes, sir.

Mr. McEWEN. That certainly would have to be maintained, and there would be a possibility of silting in that area, would there not?

Colonel SEIDEL. There was a possibility the gates would have to be provided.

Mr. McEWEN. Now, Mr. Harsha raised a question. Also, the Santee flows across that waterway also. Do you have a silting problem there now?

Mr. McALEER. This is a large delta system that has established its natural regimen over a great many years. So that the channel and things learn to live with this system all right. The flood flows already come down this river.

Mr. McEWEN. But not as they did prior to the building of the Santee spillway and the Pinopolis hydroplant?

Mr. McALEER. Even with powerplants, when there is a major flood, a good portion of the flow has got to be diverted down the Santee.

Mr. McEWEN. Now, in a quarter of a century or more the present situation has existed, has the Santee River's estuary changed in character, or do you feel it can again accommodate this larger flow of water, as it used to?

Mr. McALEER. It can absorb this larger flow again, in part because it is already absorbing great flood flows and so on. There are some small levees owned by wildlife groups that may require some adjustment, but it is a relatively small element. The Fish and Wildlife people feel that they can improve the situation.

Mr. BLATNIK. No further questions?

Mr. McEWEN. What is the present capacity of this Pinopolis Dam, kilowatt?

Colonel SEIDEL. Kilowatt, sir, 128,000.

Mr. McEWEN. The next one is 84; is that correct, sir.

Colonel SEIDEL. That is correct, sir.

Mr. McEWEN. What will be the capacity of Pinopolis if that plan were adopted and you have a new 128,000-kilowatt plant?

Colonel SEIDEL. The capacity would remain unchanged, sir. It just would not be used as much.

Mr. McEWEN. It would not be used at all?

Mr. TAYLOR. It would be used for peaking purposes; about 3 or 4 hours a day. It would operate at full capacity around 3 to 4 hours a day.

Mr. HARSHA. What does it do to your silting problem when it is in operation, then?

Mr. McALEER. There are large marshy flat areas here, and the peak flow would be absorbed in this area and spread out, so that there would not be any harmful slugs of water coming into Charleston Harbor.

Mr. TAYLOR. It would average out to 3,000 cubic feet per second.

Mr. McEWEN. Now, the 128,000 kilowatts, that is the present—

Colonel SEIDEL. Rated capacity.

Mr. McEWEN. The new one would be 84,000?

Colonel SEIDEL. Yes, sir.

Mr. HARSHA. Would the gentleman yield?

Mr. McEWEN. Yes.

Mr. HARSHA. I thought I understood and maybe I misunderstood, I thought I understood one of the witnesses say that the authority or the power people would participate in part of the cost of the construction of the new plant, is that correct?

Mr. McALEER. Yes, sir.

Colonel SEIDEL. They are to pay for the betterment that is created here.

Mr. HARSHA. Your figures here show no non-Federal contribution or participation.

Colonel SEIDEL. Not in the construction cost, sir; it would be a reimbursable item on an annual basis.

Mr. HARSHA. You do not show anything there.

Colonel SEIDEL. It is shown on the handout, sir, at the top of the second page, in the far right-hand column, we show it as a negative cost since it is a reimbursement against the annual charges, the \$417,000.

Mr. HARSHA. You show it as a negative cost?

Colonel SEIDEL. Yes, sir.

Mr. HARSHA. What kind of bookwork is that?

Colonel SEIDEL. We have an annual cost for the operation and the amortization of the project, and we apply what is reimbursed as a credit toward that annual charge.

General NOBLE. You will note that note 2 refers to reimbursable for the Federal Government.

Mr. HARSHA. When did you start using this type of formula, book-keeping system?

General NOBLE. This is no bookkeeping system, sir. This is purely an itemization to show you what the net annual charges would be, after subtracting from the gross the credit due to reimbursement. As indicated, the net is 1.27. The itemization is purely for the purpose of presenting to you the amount of the net annual charges, after adjustment for the betterment.

Mr. HARSHA. Do you actually receive \$417,000 a year?

Colonel SEIDEL. Yes, sir; that is correct. We would get it as a reimbursement.

Mr. HARSHA. Do you get it in the form of a check or money, or do you credit it off to some other operation that you have got?

Colonel SEIDEL. It would be a cash payment, sir.

Mr. HARSHA. Reimbursable cash to the Federal Government?

Colonel SEIDEL. Yes, sir.

Mr. McEWEN. Would the gentleman yield?

Mr. BLATNIK. Could we conclude? I do not want to cut you short, but we have got two or three more projects, and we will have more questions.

Mr. McEWEN. Mr. Chairman, I do not understand this \$417,000, where this net power betterment comes from.

Mr. BLATNIK. Answer that again, General.

General NOBLE. It is a net power betterment, sir. When you build the new plant, the party being compensated by this new plant has a limited advantage over the old one; they have to pay for that advantage, in the amount of the betterment. The Federal Government is obligated to restore dollar for dollar only what it is taking away, and

not for any betterments which result. I don't recall the exact nature of the betterment, but some of my people here might.

Colonel SEIDEL. Increased capacity.

General NOBLE. They have to pay for that; and this has been costed at \$417,000 a year, which they then have to reimburse the Federal Government.

Mr. McEWEN. I thought we were reducing from 128 kilowatt capacity to 84,000 kilowatt capacity, so it is not on the basis of giving them a larger capacity, is it?

Colonel SEIDEL. Yes; it is.

Mr. McEWEN. With the peaking power they get at Pinopolis, is that it?

Mr. TAYLOR. They would retain their peaking capability.

Mr. McEWEN. Peaking capability plus 84,000—

Mr. TAYLOR. St. Stephen's hydroplant.

Mr. HARSHA. Can we go into this question on this peaking business more in the executive session with them?

Mr. BLATNIK. We certainly can.

Mr. McEWEN. Have they got the cost, Mr. Chairman, that is all, what the annual kilowatt-hour cost would be on the new plant, and what it is on the existing?

Colonel SEIDEL. Sir, we will have to furnish that for the record.

Mr. McEWEN. And the number of kilowatt-hours on the proposed new peaking and the new plant north of St. Stephen, and then what it is now.

Mr. TAYLOR. Yes, sir.

Mr. BLATNIK. Furnish that for the executive session.

Colonel SEIDEL. Yes, sir.

PORT JEFFERSON HARBOR, N.Y.

Mr. BLATNIK. Colonel Seidel, we have one more in your group, Port Jefferson Harbor, N.Y.

It has a high benefit-cost ratio of 6 to 1.

Can you make a quick summary on this? Any aspects that may have been overlooked?

Colonel SEIDEL. The authorized Federal project is 16-foot depth. The local interests have deepened it to 26; our proposed project would deepen it to 40 feet.

We have assurances of local cooperation. The Federal and State agencies favor the project. The Bureau of the Budget has no objection to the submission of the project. The Secretary of the Army requests that the corps review the development of alternative transportation facilities by non-Federal entities to avoid possible duplication of transportation investments during the preconstruction planning stage.

Mr. BLATNIK. Any further questions?

Mr. McEWEN. Where is this, Nassau County?

Colonel SEIDEL. Suffolk County.

Mr. McEWEN. On the north shore?

Colonel SEIDEL. Yes, sir; the north shore of Long Island.

Mr. McEWEN. Is it for small boats?

Colonel SEIDEL. No, sir; 40 feet for tankers.

Mr. McEWEN. I am sorry, I did not see the controlling depth of 40 feet.

Colonel SEIDEL. It is presently 26 feet deep.

Mr. McEWEN. Bulk plants in here at Port Jefferson?

Colonel SEIDEL. Yes, sir.

Mr. McEWEN. What is the controlling depth, then?

Colonel SEIDEL. Twenty-six feet.

Mr. McEWEN. It has an excellent benefit-cost ratio.

Mr. HARSHA. This is, or has, a one-user phase at this time, does it not; but we have authorized this one-user business before, have we not?

Colonel SEIDEL. Sir, there are presently two users, Long Island Lighting Co. and Consolidated Petroleum Terminal, Inc.

Mr. HARSHA. I have no further questions.

Mr. BLATNIK. No further questions of Colonel Seidel.

That will be all.

Colonel Anderson, could we finish your two projects? I believe they are not too controversial. One is H.R. 510 (H.R. 7634), Buffalo, N.Y.

We had Mr. Dulski and Mr. McCarthy. We have had a brief description. Is there anything more to add?

BUFFALO CITY, N.Y., LAND CONVEYANCE (H.R. 510)

Colonel ANDERSON. Sir, I have a statement for the record that goes into the technical details on the description of the land and gives the background.

Mr. BLATNIK. We have it here. It will appear in its entirety.

(Statement referred to follows:)

STATEMENT BY COL. FRED E. ANDERSON, JR., OFFICE CHIEF OF ENGINEERS, DEPARTMENT OF THE ARMY

Mr. Chairman and members of the committee, I am Lt. Col. Fred E. Anderson, Jr., Assistant Director of Civil Works for Central Divisions, Office, Chief of Engineers, Department of the Army. I have been designated to present the views of the Department of the Army on H.R. 510. I have a brief prepared statement which I would like to present to the Committee.

The purpose of this bill is to direct the Secretary of the Army to convey, without monetary consideration, to the City of Buffalo, New York, all right, title and interest of the United States in approximately 51 acres of land underlying Lake Erie, to be used for recreational development purposes; further, that should such use cease, title shall revert to the United States.

The views of this Department were recently furnished the Chairman of this Committee by letter from the Secretary of the Army. As stated therein, this Department is not opposed to the enactment of this bill if it is amended to (1) provide for certain navigational requirements, and (2) the legal description of the lands be revised to more accurately reflect existing conditions.

The real property referred to in this bill consists of approximately 51 acres of underwater land of Lake Erie in the outer harbor of the City of Buffalo, New York. These lands were originally acquired by the United States, without cost, by a deed of patent dated 5 May 1904 from the State of New York for use in conjunction with other lands purchased by the Government for the improvement of the Buffalo Outer Harbor project. This deed was accepted by the Government, recorded on 11 January 1906, and the United States is vested with fee title to these lands.

On 9 May 1950 the Army declared excess 11.0 acres of upland immediately adjacent to these 51 acres of underwater land, and reported the same to General Services Administration for disposal. Thereafter, by deed dated 23 May 1952, the General Services Administration conveyed the 11.0 acres of land to the City of Buffalo in consideration of \$11,250, being 50 percent of the market value at that time. The deed contained a number of conditions, among which were

that (1) the property be used for 20 years solely for public park and recreational purposes; (2) the city file biennial reports with the Secretary of the Interior as to the use of the property; (3) the city not lease or dispose of the property for 20 years without the written consent of the Secretary of the Interior; and (4) upon breach of any conditions, title to the property would revert to the United States.

At the time of the conveyance in 1952, all parties were of the mistaken belief that title to the underwater lands was in the State of New York. The City of Buffalo made application to the State for a grant of subject underwater lands, following which the existing ownership of the United States became known. Investigation also disclosed that the previous conveyance of 11.0 acres of land actually encompassed five acres of the 51 acres described in this bill, leaving a remainder in the United States of only 46 acres of underwater land. The Department of the Army has been requested to release these lands to the City of Buffalo, and H.R. 510 would provide the requisite authority for such conveyance.

The Department of the Army is not opposed to the ultimate development of this area for park and recreational purposes. However, studies relating to the pollution problem of Lake Erie, disclose a potential need for disposal areas for dredged material. Subject 46 acres of underwater lands would serve a portion of such requirement, for which reason this Department would prefer to retain the privilege of using these lands for spoil disposal purposes. Consequently, should the Committee desire to favorably consider this bill, the Department of the Army would not object to a conveyance of these lands to the city provided, it is amended to reserve to the United States the right to use such lands as long as may be required for a spoil disposal area. This may be accomplished by adding a section 3 to the bill as follows:

"SEC. 3. Any deed of conveyance made pursuant to this Act shall reserve to the United States, so long as may be required, the right to use such lands for a spoil disposal area for materials dredged from the Buffalo Harbor Project, including the right to place structures thereon and to perform all other actions incident to such use, together with the rights of ingress and egress thereto. Further, said deed shall contain such additional terms and conditions as may be determined by the Secretary of the Army to be necessary to protect the interest of the United States."

It is also recommended that the following technical changes be made:

(a) On page 1, line 7, delete "51" and substitute "46.01".
 (b) On page 1, line 8, after the word "for" insert "public park and". This will assure consistency with the conveyance of the upland.

(c) Commencing on page 2, line 3, delete the entire section 2 and substitute a new section 2 revising the legal description. A copy is attached to this statement.

This concludes my statement, Mr. Chairman, and I shall be happy to answer any questions you may have on this matter.

PROPOSED REVISED SEC. 2, H.R. 510, 90TH CONGRESS

SEC. 2. The real property referred to in the first section of this Act is more particularly described as follows:

(1) PARCEL E.—Beginning at the point of intersection of the south line of outer lot 39 prolonged and the shoreline of Lake Erie as established in 1846, which point bears S. 68° 28' W., a distance of 140 feet, more or less, from U.S. Monument (No. 7) which monument is the southeasterly corner of the said outer lot 39;

thence southwesterly at right angles with the established harbor line, 1,140 feet, more or less, to the said harbor line;

thence northwesterly along said harbor line 1,310 feet, more or less, to the point of intersection of said harbor line and a line at right angles thereto passing through the point of intersection of the shoreline of Lake Erie in 1846 and a line 330 feet northerly at right angles from and parallel with the south line of outer lot 36;

thence northeasterly at right angles with said harbor line 1,115 feet, more or less, to the shoreline of Lake Erie in 1846.

thence southeasterly along said shoreline of Lake Erie 1,320 feet, more or less, to the point of beginning containing 34.04 acres, more or less.

(2) PARCEL C—Beginning at the point of intersection of the shoreline of Lake Erie with the northerly line of land deeded to the United States Government, October 21, 1846, said line also extending in a due east and west direc-

tion and passing through the northwest corner of outer lot 36 (U.S. Monument No. 2), said point of beginning being also 480 feet, more or less, west of the said northwest corner of outer lot 36;

thence southeasterly along said shoreline of Lake Erie in 1846 a distance of 470 feet, more or less, to the intersection with a line 330 feet northerly at right angles from and parallel with the south line of lot 36, said line being also the north line of lands deeded to the United States Government, September 25, 1847;

thence southwesterly at right angles to established harbor line 1,115 feet, more or less, to the established harbor line.

thence northwesterly along said harbor line 465 feet, more or less, to the point of intersection of said harbor and a line at right angles thereto passing through the point of intersection of the shoreline of Lake Erie in 1846 and the line extending in a due east and west direction and passing through the northwest corner of outer lot 36;

thence easterly at right angles to established harbor line 1,115 feet, more or less, to the shoreline of Lake Erie in 1846, which is the above referenced point of beginning, containing 11.97 acres, more or less.

DEPARTMENT OF THE ARMY,
Washington, D.C., April 26, 1968.

Hon. GEORGE H. FALLON,
Chairman, Committee on Public Works,
House of Representatives.

DEAR MR. CHAIRMAN: Reference is made to your request for the views of the Department of the Army with respect to H.R. 510, 90th Congress, a bill "To provide for the conveyance of certain real property of the United States underlying Lake Erie to the city of Buffalo, New York."

The purpose of this bill is generally as stated in its title. More specifically, it would direct the Secretary of the Army to convey, without monetary consideration, to the City of Buffalo, New York, all right, title and interest of the United States in approximately 51 acres of land underlying Lake Erie, to be used for recreational development purposes; further, that should such use cease, title shall revert to the United States.

The Department of the Army is not opposed to the enactment of this bill provided it is amended, as hereinafter stated, to provide for the requirements of this Department. With respect to the merits of the bill, this Department defers to the views of the Department of Interior and the General Services Administration.

The real property referred to in this bill consists of approximately 51 acres of underwater land of Lake Erie in the outer harbor of the City of Buffalo, New York. These lands were originally acquired by the United States, without cost, by a deed of patent dated May 5, 1904 from the State of New York for use in conjunction with other lands purchased by the Government for the improvement of the Buffalo Outer Harbor project. This deed was accepted by the Government, and recorded on January 11, 1906 in the Erie County Clerk's Office in Liber 1018 of Deeds on pages 316, 317 and 318. However, for reasons unknown, the conveyance was not reflected on the project real property maps and the ownership of the United States only recently came to light in the title examination of adjacent lands. Notwithstanding the lack of knowledge, the United States is vested with fee title to these lands by operation of law, the deed having been a matter of uncontested official record for 60 years.

It is also relevant to note that in 1949 the City of Buffalo expressed a desire to obtain for park purposes title from the United States to the uplands, immediately adjacent and littoral to subject 51 acres of underwater land, which had previously been declared excess. As a consequence, on May 9, 1950 this Department reported 11.0 acres of such adjacent property to the General Services Administration for disposal pursuant to the Federal Property and Administrative Services Act of 1949 (63 Stat. 377) as amended. Thereafter, by deed dated May 23, 1952, the General Services Administration conveyed the 11.0 acres of land to the City of Buffalo in consideration of \$11,250, being 50 per cent of the market value at that time. The deed contained a number of conditions, among which were that (1) the property be used for 20 years solely for public park and recreational purposes; (2) the city file biennial reports with the Secretary of the Interior as to the use of the property; (3) the city not lease or dispose

of the property for 20 years without the written consent of the Secretary of the Interior; and (4) upon breach of any conditions, title to the property would revert to the United States.

At the time of the above-mentioned conveyance in 1952, all parties were of the mistaken belief that title to the underwater lands was in the State of New York. The laws of the State restrict the grant of underwater lands to the adjacent riparian owner (Sec. 75, Art 6, Public Lands Law of New York). Pursuant to this statute, the City of Buffalo, as riparian owner, made application to the State for a grant of subject underwater lands, following which the existing ownership of the United States became known. Investigation also disclosed that the previous conveyance of 11.0 acres of land actually encompassed five acres of the 51 acres described in this bill, leaving a remainder in the United States of only 46 acres of underwater land. Thereafter, the Department of the Army was requested to release these lands to the City of Buffalo. H.R. 510 would provide the requisite authority for such conveyance.

The Department of the Army is not opposed to the ultimate development of this area for park and recreational purposes. However, studies relating to the pollution problem of Lake Erie, disclose a potential need for disposal areas for dredged material. Subject 46 acres of underwater lands would serve a portion of such requirement, for which reason this Department would prefer to retain the privilege of using these lands for spoil disposal purposes. Consequently, should the Committee desire to favorably consider this bill, the Department of the Army would not object to a conveyance of these lands to the City provided, it is amended to reserve to the United States the right to use such lands as long as may be required for a spoil disposal area. This may be accomplished by adding a section 3 to the bill as follows:

"SEC. 3. Any deed of conveyance made pursuant to this Act shall reserve to the United States, so long as may be required, the right to use such lands for a spoil disposal area for materials dredged from the Buffalo Harbor Project, including the right to place structures thereon and to perform all other actions incident to such use, together with the right of ingress and egress thereto. Further, said deed shall contain such additional terms and conditions as may be determined by the Secretary of the Army to be necessary to protect the interest of the United States."

In view of the factual background relating to the aforementioned prior conveyance of the uplands to the City of Buffalo, it is recommended that, prior to any action on this bill, the Committee obtain the views of the Department of Interior and General Services Administration as to the merits of the proposal.

Should the Committee favorably consider this bill, it is further recommended that the following technical changes be made:

- (a) On page 1, line 7, delete "51" and substitute "46.01".
- (b) On page 1, line 8, after the word "for" insert "public park and". This will assure consistency with the conveyance of the upland.
- (c) Commencing on page 2, line 3, delete the entire section 2 and substitute a new section 2, as attached hereto.

The fiscal effect of enactment of this bill cannot be readily ascertained.

The Bureau of the Budget advises that, from the standpoint of the Administration's program, there is no objection to the presentation of this report to the Committee.

Sincerely yours,

STANLEY R. RESOR,
Secretary of the Army.

PROPOSED REVISED SEC. 2, H.R. 510, 90TH CONGRESS

SEC. 2. The real property referred to in the first section of this Act is more particularly described as follows:

(1) PARCEL E.—Beginning at the point of intersection of the south line of outer lot 39 prolonged and the shoreline of Lake Erie as established in 1846, which point bears S. 68° 28' W., a distance of 140 feet, more or less, from U.S. Monument (No. 7), which monument is the southeasterly corner of the said outer lot 39; thence southwesterly at right angles with the established harbor line 1,140 feet, more or less, to the said harbor line;

thence northwesterly along said harbor line 1,310 feet, more or less, to the point of intersection of said harbor line and a line at right angles thereto passing through the point of intersection of the shoreline of Lake Erie in 1846 and a line

330 feet northerly at right angles from and parallel with the south line of outer lot 36;

thence northeasterly at right angles with said harbor line 1,115 feet, more or less, to the shoreline of Lake Erie in 1846.

thence southeasterly along said shoreline of Lake Erie 1,320 feet, more or less to the point of beginning containing 34.04 acres, more or less.

(2) PARCEL C-B.—Beginning at the point of intersection of the shoreline of Lake Erie with the northerly line of land deeded to the United States Government, October 21, 1846, said line also extending in a due east and west direction and passing through the northwest corner of outer lot 36 (U.S. Monument No. 2), said point of beginning being also 480 feet, more or less, west of the said northwest corner of outer lot 36;

thence southeasterly along said shoreline of Lake Erie in 1846 a distance of 470 feet, more or less, to the intersection with a line 330 feet northerly at right angles from and parallel with the south line of lot 36, said line being also the north line of lands deeded to the United States Government, September 25, 1847;

thence southwesterly at right angles to established harbor line 1,115 feet, more or less, to the established harbor line;

thence northwesterly along said harbor line 465 feet, more or less, to the point of intersection of said harbor and a line at right angles thereto passing through the point of intersection of the shoreline of Lake Erie in 1846 and the line extending in a due east and west direction and passing through the northwest corner of outer lot 36;

thence easterly at right angles to established harbor line 1,115, feet more or less, to the shoreline of Lake Erie in 1846; which is the above referenced point of beginning, containing 11.97 acres, more or less.

Colonel ANDERSON. The Department of the Army is not opposed to the enactment of the bill, provided that the property will continue to be available as a site for the disposal of materials dredged from the authorized project at this locality.

That completes my statement.

Mr. BLATNIK. How much acreage is involved?

Colonel ANDERSON. The bill mentions 51 acres. But since there has been some confusion in the title of the land, the actual acreage is 46. My statement includes a correction.

Mr. BLATNIK. Is there any cost to the Federal Government?

Colonel ANDERSON. No cost to the Federal Government.

Mr. HARSHA. This is the one we had with Mr. Dulski?

Colonel ANDERSON. Right.

Mr. HARSHA. I believe they agreed to accept your suggested amendment?

Colonel ANDERSON. That is right, sir.

The city of Buffalo in fact passed a resolution stating that they would accept the stipulation that the Department of the Army has placed on this conveyance.

Mr. HARSHA. Would we not need a new description?

Colonel ANDERSON. Yes, sir; that is included with the statement.

Mr. BLATNIK. This can be accomplished by adding a section 3 to the bill, "as follows" in the language.

Mr. McEWEN. Mr. Chairman.

Mr. BLATNIK. Mr. McEwen.

Mr. McEWEN. Colonel, what is this land to be used for by the city of Buffalo?

Colonel ANDERSON. For recreation purposes. Although the plans are not precise, it will be a general recreation area with a marina.

Mr. McEWEN. You do not have a map here of it, by chance?

Colonel ANDERSON. I have a picture that will give you an idea of what it is like.

(Discussion off the record.)

Mr. McEWEN. That will be filled in?

Colonel ANDERSON. Yes. The city would then take over and convert this into recreation.

Mr. McEWEN. What is it used for now?

Colonel ANDERSON. Nothing.

Mr. McEWEN. I take it from this aerial view that it is from the very heart of the downtown area?

Colonel ANDERSON. Yes.

Mr. HARSHA. Colonel, I think in your suggested amendment you ask for a perpetual right to dispose in this area; is that correct?

Colonel ANDERSON. We did not put a time limit on it, sir. The idea was as soon as we had filled it, to its capacity, with dredge spoil, then the city takes over. We would anticipate, depending on just how the dredging program continues at Buffalo Harbor or Buffalo River particularly, that this would take 3 to 4 years.

Mr. HARSHA. Otherwise, we might hold up the development of this until such time as—indeinitely, as a matter of fact? Would you object, or the corps object to a time limit on this, of 5 years, say?

Colonel ANDERSON. Sir, I would like to study that a little more, but offhand, 5 years sound a little low; depending on how much spoil we dredge from the Buffalo River, which is the primary spoil that we are considering disposing here; it could take longer than 5 years to fill up the area.

Mr. HARSHA. Could you give us an estimate?

Colonel ANDERSON. I think it would be as high as 7 years.

Mr. HARSHA. You do not have to do it now. Could you provide a figure for us so when we get to executive session, by that time, it might be acceptable?

Colonel ANDERSON. We own the land, sir. That you understand.

Mr. HARSHA. Yes. I am in agreement with you, except I would not want delay of 20 or 30 years, because that will defeat the purpose of the legislation.

So if you could get together with your colleagues and determine a time that you think you can live with, that might be acceptable, we will consider that in executive session.

(The following was received for the record:)

After further consideration, the Corps recommends that the use of land under consideration for conveyance to the City of Buffalo, be reserved for a dredged spoil disposal site for seven years or such lesser time period as may be determined satisfactory by the Secretary of the Army. Should the Committee favor this proposal, then the Army's proposed amendment for a new section 3 should be modified by deleting the phrase "so long as may be required" and substituting appropriate language. For this purpose a revised new section 3 follows:

"Sec. 3. Any deed of conveyance made pursuant to this Act shall reserve to the United States, for a period of seven years from the enactment of this Act or such lesser period as may be determined satisfactory to the Secretary of the Army, the right to use such lands for a spoil disposal area for material dredged from the Buffalo Harbor Project, including the right to place structures thereon and to perform all other actions incident to such use, together with the rights of ingress and egress thereto. Further, said deed shall contain such additional terms and conditions as may be determined by the Secretary of the Army to be necessary to protect the interest of the United States."

JUNE 27, 1968.

Hon. JOHN A. BLATNIK,
*Chairman, Subcommittee on Rivers and Harbors, Committee on Public Works,
 House of Representatives, Washington, D.C.*

DEAR MR. CHAIRMAN: During Wednesday's hearing on my bill, H.R. 510, a question was raised about the report from the General Services Administration which contends that the City of Buffalo should follow normal procedure for land to be acquired from the Federal Government for park and recreational use.

I am aware of the provisions in law to which the General Services Administration is referring, but I feel that there already are extenuating circumstances with respect to the property involved in my bill.

Both the Departments of the Army and the Interior referred to this matter in their reports to your Committee.

It is pointed out that title to the property involved was conveyed by the State of New York to the United States in 1906, without monetary consideration, for use in conjunction with other lands for the improvement of the Buffalo Outer Harbor Project.

For some reason, the conveyance was not reflected on real property maps, and the ownership by the United States came to light only recently in the title examination of adjacent property. This discovery came after the United States was vested with fee title to the lands by operation of law, the deed having been a matter of uncontested official record for 60 years.

In view of the background of acquisition and ownership of this property and the excellent purpose to which it will be put, I believe that the conveyance to the City of Buffalo, as provided in my bill, is entirely proper and in order.

I appreciate very much your consideration of this proposal and the opportunity to testify before your Subcommittee.

With kind regards.

Sincerely yours,

T. J. DULSKI.

Mr. BLATNIK. Colonel, let's take next H.R. 15433, Calumet Sag Modification. Congressman Madden appeared on behalf of this project.

CALUMET-SAG PROJECT MODIFICATION (H.R. 15433)

Colonel ANDERSON. This bill would modify the Calumet-Sag navigation project authorized by the River and Harbor Act in 1946, in accordance with House Document 45, 85th Congress, insofar as it applies to existing highway bridges in part II of the project.

The Department of the Army considers that Federal participation in the alteration of obstructive highway bridges for part II, as recommended in House Document 45, 85th Congress, should be consistent with that in part I.

Accordingly, the Department of the Army has no objection to enactment of H.R. 15433.

Sir, that completes my statement.

Mr. BLATNIK. The Bureau of the Budget had no objection, and all other required reports are in, too; are they?

Colonel ANDERSON. Yes, sir.

The only report, as far as we are concerned, is the Department of the Army's report, which is not objected to by the Bureau of the Budget.

Mr. BLATNIK. Any questions?

No questions. Thank you, Colonel Anderson.

RED RIVER WATERWAY, LA., ARK., TEX., AND OKLA.

General NOBLE. Can we clarify one point on the Red River? I am not sure it needs clarification. I want to make sure it goes in the record properly.

The chairman asked the question whether the project could be broken up, and I answered yes, if the Congress chose to break it up; it could be. I was referring, of course, to the two reaches of the river, and not to the two purposes, navigation and bank stabilization. Both of these purposes are essential to the lower reach; so I want to clarify that you were talking about the two reaches, and not these two project purposes.

Mr. BLATNIK. I was talking about the reaches.

General NOBLE. Yes, sir; then it is clear.

Now we go back to the Missouri River Navigation, South Dakota, North Dakota, and Nebraska.

Mr. BLATNIK. Lt. Col. Daniel D. Hall, assistant director of civil works—we did not start on this one, did we, Colonel Hall?

Colonel HALL. No, sir.

Mr. BLATNIK. Please proceed with the explanation of the project.

MISSOURI RIVER NAVIGATION, SOUTH DAKOTA, NORTH DAKOTA,
AND NEBRASKA

Colonel DANIEL HALL. I have a very brief statement, sir.

This report is concerned with the flood control and bank erosion problems and the potential for extending shallow-draft navigation into the three-State area in response to several resolutions and River and Harbor Act items.

The Chief of Engineers proposes the construction of improvements between Sioux City and Gavins Point Dam for stabilization of the riverbanks and provision of a navigable channel 9 feet deep and 300 feet wide.

The total estimated Federal cost is \$56,958,000. The benefit-cost ratio is 1.3.

The comments of the States of Nebraska, South Dakota, and North Dakota are favorable; however, the Governors of Nebraska and South Dakota expressed the view that the cost for lands, easements, and rights-of-way should be a Federal cost. Congressional authorizations on similar types of projects with few exceptions over a period of years have required non-Federal interests to furnish necessary lands, easements, and rights-of-way; and to hold and save from damages. The recommendations of the Chief of Engineers are in accordance with these precedents. The comments of the Federal agencies are generally favorable.

The benefits attributed to bank stabilization are under review by the Office, Chief of Engineers, in coordination with the Department of Agriculture.

Mr. Chairman, this completes my statement.

Mr. BLATNIK. There is no comment, no report as yet has been received from the Bureau of the Budget?

Colonel HALL. No, sir. The report has not yet reached the Bureau of the Budget, sir.

Mr. BLATNIK. Any questions?

Mr. HARSHA. Yes, I have some.

Colonel, I notice that the project is around \$57 million Federal, in round numbers, and that local participation is only \$824,000. Now, this is essentially a bank stabilization project; is it not?

Colonel HALL. Bank stabilization and channel improvement for navigation.

Mr. HARSHA. Why is there such a small local participation in the bank stabilization feature of it?

Colonel HALL. Why is there such a small contribution?

Mr. HARSHA. Such a small local participation.

Colonel HALL. The local cooperation requirements are to provide the land, easements, and rights-of-way, and this is our estimate of the cost of these requirements. There is no land enhancement involved in this project, in our view.

Mr. HARSHA. No land enhancement involved?

Colonel HALL. That is right.

Mr. HARSHA. Are you replacing jetties in some cases there?

Colonel HALL. There are not any replacements of jetties or training dikes.

STATEMENT OF ROBERT C. THOMPSON, OFFICE, CHIEF OF ENGINEERS

Mr. THOMPSON. The proposed plan does not include replacing any existing features of that nature, no existing training dikes or any works of that nature are being replaced.

Mr. HARSHA. There are none being replaced. Do you include in your maintenance fund any work of that kind?

Colonel HALL. Yes, sir.

Mr. HARSHA. Is this normally done as new work, rather than maintenance work?

Colonel HALL. Not necessarily, sir. If the training dike can reduce the dredging cost of maintaining a channel, it would be more economical to do so, to maintain the channel, it is done under maintenance; this is done on the Mississippi.

Mr. HARSHA. You do not charge it up to construction costs then?

Colonel HALL. No, sir; it is maintenance with cost of maintaining dependable navigation channel to the depth that is authorized for the prospective project. This is not to say that training dikes or things of this nature would not be envisioned in the initial project in some reaches to help achieve this channel. This is the case in some projects for initial construction costs.

Mr. HARSHA. That is what had me confused. In some projects we have had the initial construction costs to take care of this particular item; but in this one we do not.

General NOBLE. It depends on the situation, sir. If the training dike is an instrument to achieve a new project depth authorized by Congress, then it would be in the initial construction cost. If it is constructed in the course of trying to maintain an authorized project depth—such as where a new training dike may be useful to maintain an already authorized project depth, then it would come under maintenance, in lieu of continued dredging.

In that case, it would be maintenance since it would be needed to maintain something already authorized.

Mr. HARSHA. Have you done this in other projects?

General NOBLE. Yes.

Mr. HARSHA. This is the normal method of handling this?

General NOBLE. Yes, sir.

Colonel HALL. On occasion, sir, there could be a channel straightening to take out a bend in a river, to maintain a navigable channel. In this project, in the channel stabilization, there are items such as dikes and revetment, cutoffs, to achieve this navigable channel, so this is included in this initial construction concept to achieve this navigation channel.

Mr. HARSHA. All right.

Now, am I correct in my information that this particular stretch of the river cost a little over \$7,000 per mile for maintenance in this report?

Colonel HALL. Annual O. & M. is about \$400,000, sir—\$7,000 a mile. This is correct; it is paragraph 25 of the district's report; yes, sir.

Mr. HARSHA. The costs now on the same river are an average for maintenance of 10,875, are they not?

Colonel HALL. Were you speaking in the same reach of the river in which the project is proposed or that below Sioux City?

Mr. HARSHA. In the same region.

Colonel HALL. I do not know, sir.

Mr. HARSHA. How about below Sioux City?

Colonel HALL. Below Sioux City is shown with \$11,500 per mile.

Mr. HARSHA. Why would your cost here be about only 75 percent of that?

Colonel HALL. The flows are less in its upper reaches. It has apparently a tributary coming into it that increases the flows down below Sioux City.

Mr. HARSHA. What tributary is there?

Colonel HALL. That is the Big Sioux.

Mr. HARSHA. That increases the flow?

Colonel HALL. Yes, sir.

Mr. HARSHA. By about how much, do you know?

Colonel HALL. Let Mr. Feil answer that, sir.

STATEMENT OF GEORGE FEIL, OFFICE, CHIEF OF ENGINEERS— Resumed

Mr. FEIL. The navigation in this part of the river is around 20,000 to 35,000 cubic feet per second. The flow at Kansas City, for instance, which is in the other part of the reach, is around 38,000 to 40,000 c.f.s., maintaining the foot navigation channel, and that flow will increase further than that. I cannot quote you a figure, but I do have those figures in mind.

It is not twice as fast, but, say, almost twice as much flow required at Kansas City to maintain the 9-foot channel as there is in this reach up here [indicating], and the increased flows would give us the maintenance cost in tearing up the dikes, the training dikes that are put in; knock the end off one, and have to go back in and replace it, and that kind of thing.

Mr. HARSHA. You are figuring the interest rate on this project at 3½ percent again.

Colonel HALL. Yes, sir.

Mr. HARSHA. If the interest rates were more realistic, that is more along the line the Government has to actually pay to borrow money, would this project be below unity?

Colonel HALL. We figured it on three and a quarter, sir.

Mr. HARSHA. Three and a quarter?

Colonel HALL. And it has no appreciable change at three and a quarter. At some other interest rate, we have not figured that.

Mr. HARSHA. It has no appreciable change?

Colonel HALL. At three and a quarter. From three and an eighth to three and a quarter.

Mr. HARSHA. There is no appreciable change?

Colonel HALL. That is correct.

Mr. HARSHA. What is there at four and a half?

General NOBLE. It probably would still be good, sir. Revised interest rates of a level of $4\frac{1}{2}$ percent or so would make a project with a benefit-cost ratio of 1.2 borderline. This project is 1.3, so it should still be above unity.

Mr. HARSHA. Now, am I correct again—my information is that 92 percent of the base year traffic and 90 percent of the transportation savings are attributed to barge movements of grain, mainly wheat: is that correct?

Colonel HALL. Sir, about \$398,000 of a total of \$436,000 of the base year traffic is agricultural products. That is, whether or not the wheat makes up a large portion of that or not, I would have to check further.

Mr. HARSHA. Do your figures or reports indicate how many tons of wheat were shipped out or that you used as a base?

General NOBLE. Can we provide that for the record, sir? We have got some figures here, but we are not sure whether they respond to your question.

Mr. HARSHA. The point I was trying to get at is, I think you used considerable more tonnage than has been shipped out of Sioux City, say, for example, over the last 10 years—10-year average shipment out of Sioux City was 86,000 tons for a year by all means of transportation, rail, truck and barge. And I think you considerably increased that shipment for just the river, for barge shipment—have you not—or maybe I am mistaken. That is what I am trying to find out.

Will you submit that for the record?

Colonel HALL. Yes, sir.

Mr. HARSHA. Will you also submit this for the record: Did you consider the markets for wheat to the south on the Missouri River as being competitive or not very competitive; or just how did you consider them on the market? Would you get that for the record?

Colonel HALL. Yes, sir; I will.

Mr. HARSHA. Let us do it this way, Colonel. I have a series of questions I was prepared to ask you and they are written. I will just submit them to you, and if you would provide answers for them for the record, that will expedite this.

Colonel HALL. Yes, sir. We will be very happy to do that, Mr. Harsha.

(Information requested follows:)

MISSOURI RIVER BANK STABILIZATION AND NAVIGATION DEVELOPMENT, SIOUX CITY
TO YANKTON

Statement.—The project is set up as a bank stabilization project.

Question.—Why is there no substantial local participation included for bank stabilization?

Answer.—The proposed project is an extension of the existing project for navigation and bank stabilization on the Missouri River downstream from Sioux City, Iowa. The cost sharing is in accordance with the policy for navigation oriented projects; that is, furnish lands, easements, and rights-of-way, and hold and save.

Question.—Other than the Missouri River Basin, where else is local participation eliminated for bank stabilization projects?

Answer.—Projects primarily for bank stabilization that have been recommended by the Chief of Engineers have generally required non-Federal local participation similar to that for projects for flood control. There have been projects for navigation with bank stabilization features in which there has been minimal local participation. In addition to the Missouri River downstream from Sioux City, Iowa, these have included the Arkansas River multiple-purpose project and the Mississippi River below Cairo, Illinois.

Statement.—Replacement of jetties on the Missouri are done as new work rather than out of maintenance funds.

Question.—Why is there no funds provided for the replacement of these structures on this project?

Answer.—The cost estimate for the proposed plan includes replacement or repair of jetties, as well as other necessary maintenance work, under the heading operation and maintenance for the channel.

Question.—Why should this stretch of the river cost \$7055/miles for maintenance when the same river now cost an average for maintenance of \$10875 per mile? The average maintenance cost of completed projects of 7 to 9 feet are from 2.22 to 5.62 percent of the actual cost of new work. Why is this project figured at only .75 percent of estimated first cost?

Answer.—The operation and maintenance estimate for the reach from Sioux City to Yankton is based upon the experience gained from the existing bank stabilization project for Kensler and Miners Bends located immediately upstream from Sioux City. This has averaged about \$7,000 per mile. The design of specific project improvements for the Sioux City-Yankton reach is based upon the experience gained from similar types of improvements that have been constructed in the reaches downstream from Sioux City. This experience has provided improved designs that will have lower maintenance cost per mile than has occurred on some of the older existing works on the lower reach. In addition, the flow in the Missouri River at and below Sioux City fluctuates over a wider range, which contributes to the higher maintenance costs experienced on the existing project. The more controlled flows upstream from Sioux City are expected to contribute to lower maintenance costs in that reach.

Statement.—Interest rate on this project is 3½ percent.

Question.—If interest rates of these projects are raised materially, will this project be below unity?

Answer.—The project economic analysis is based upon an interest rate of 3½ percent and the B/C ratio is 1.3. Use of the present prescribed rate of 3¼ percent would have little effect upon the benefit-cost ratio. Use of an interest rate as much as one to 1¼ percent higher could possibly lower the benefit-cost ratio to about unity.

Question.—Why were interest and maintenance cost not charged during construction period?

Answer.—Interest during construction has not been included in the economic analysis since benefits from controlling bank erosion will accrue throughout the overall construction period with the completion of each usable segment of the overall work. Maintenance costs are normally not incurred until a project or usable segment of work has been completed. The estimate of average annual maintenance cost includes funds to provide for maintenance of completed units of work to preserve the integrity of each completed unit.

Statement.—Ninety-two percent of the base year traffic and 90 percent of the transportation savings are attributed to barge movements of grain, mainly wheat.

Question.—What is the breakdown of grain tonnages?

Answer.—

Wheat -----	437, 000
Corn -----	132, 000
Other grains-----	125, 000
Total -----	694, 000

Question.—Did the Corps of Engineers consider the markets for wheat, to the South on the Missouri River, is now very competitive?

Answer.—The Corps study did not find any significant transportation savings on local movement of grain destined to points on the Missouri River namely Omaha and Kansas City. All transportation savings are associated with movements of export grain and domestic grain movement to the southwest.

Question.—Is it not likely that export market will draw on Texas, Oklahoma and Nebraska wheat crops before South Dakota?

Answer.—South Dakota grain now competes in world markets with the southern produced grains with movements through west coast and Great Lakes ports. The Corps studies, confirmed by independent studies made by the Department of Agriculture, indicated that under competitive conditions grain movements from points of supply to points of demand would be such as to minimize total transportation charges. This would amount to a change in the flow of traffic from east-west to north-south movements.

Question.—Why would you presume that all available wheat tonnages would be shipped by barge South where there is a limited market and lots of competitive grain?

Answer.—The Corps study did not assume that all grain expected to be produced in the South Dakota tributary area in the future would be moved by barge. Our analysis indicate that a substantial portion of that grain now moving to upper Mississippi River ports for trans-shipment by barge for export to southern destinations could move via the Missouri River through Yankton at a substantial savings.

Question.—South Dakota is now a deficit feed grain area due to ever increasing feed stock industry is it not?

Answer.—Only 15 counties in the western part of the state out of the 41 county tributary area were identified as deficit feed grain producing areas.

Question.—Would an error of 30 percent in the estimate of 694,000 tons of grain in the base year destroy your justification, especially if approximately 200,000 tons of feed grain is produced and used in the area for feed stock?

Answer.—A reduction of this magnitude would have no substantial effect on the presently estimated benefit-cost ratio of 1.3 for the overall bank stabilization-navigation project. The incremental justification for the navigation purpose only would be reduced from 1.5 to about 1.2.

Question.—How many tons of grain were moved on the Missouri River in 1966, the base year of the report?

Answer.—Total grain traffic on the Missouri River in 1966 was 1,670,932 tons.

Question.—Do you propose then that the base year of operation of the Port of Yankton, if the project is approved, Yankton will ship 42% of the total grain moved on the Missouri River in competition with the established grain centers of Kansas City, Omaha, Sioux City?

Answer.—With completion of the 9-foot channel throughout the entire reach from Sioux City to the mouth, reduced rates from all ports are expected which would thus increase the total grain shipment on the Missouri River. The share moved through Yankton would be a smaller percentage of the future total grain movement on the Missouri River.

Question.—What average grain haul rate did you use from the tributary areas into Yankton?

Answer.—We did not use an average grain haul rate from the tributary area. Rates used in the Corps' analysis were applied from shipping points throughout the tributary area based on rate-mileage scales applicable to unregulated truck load movements of grain. The barge rate used in the analysis from Yankton to New Orleans was \$5.58 per ton. This was a constructed barge rate based on existing rates modified to reflect expected improvements in operating conditions with completion of authorized 9-foot channel project to Sioux City. As indicated in the report average savings per ton approximate \$0.43 or the equivalent

lent of 2.15 cents per hundred weight. This savings represents only the differences in transportation charges between Sioux City and Yankton.

Mr. HARSHA. I have no further questions.

Mr. BLATNIK. This concludes the public hearings part of the rivers and harbors beach erosion section.

(Discussion off the record.)

Mr. McEWEN. Mr. Chairman, our colleague from New York, Mr. Conable, informed me today that since the subcommittee heard the report on the Cameron Beach, New York, New York State, that he has been advised by the Bureau of the Budget that they had cleared this project and that the Secretary of the Army has been so advised of that.

General Noble, you will check on that, sir?

General NOBLE. Yes, sir.

Mr. McEWEN. At the time it was here in the subcommittee it was my understanding that the Bureau of the Budget had not reported it out.

I just want to be sure that we have that.

Mr. BLATNIK. The public hearings are concluded, and the session is adjourned.

Thank you very much.

(Whereupon, at 5:04 p.m., the subcommittee concluded its public hearings.)

BASIN MONETARY AUTHORIZATION

The total amount is \$466 million for the requirements for 12 basins through calendar year 1969 and \$3 million for completion of the West Branch Susquehanna River Basin making a grand total of \$469 million.

The committee wishes to point out again that this is additional monetary authorization for projects already authorized.

Basin	Act of Congress	Monetary authorization required through CY 1969
Alabama-Coosa River.....	Mar. 2, 1945	\$29,000,000
Arkansas River.....	June 28, 1938	108,000,000
Brazos River.....	Sept. 3, 1954	2,000,000
Central and Southern Florida.....	June 30, 1948	15,000,000
Columbia River.....	June 28, 1938	193,000,000
Missouri River.....	do.....	38,000,000
Ohio River.....	June 22, 1936	35,000,000
Ouachita River.....	May 17, 1950	10,000,000
San Joaquin River.....	Dec. 22, 1944	17,000,000
South Platte River.....	May 17, 1950	12,000,000
Upper Mississippi River.....	June 28, 1938	5,000,000
White River.....	do.....	2,000,000
Total.....		466,000,000

DESCRIPTION OF BASINS

A description of the basins and the status of the monetary authorizations involved in S. 3710 are given in the following paragraphs. Amounts are rounded to millions of dollars. The specific projects on which these increased authorizations are intended to be used are shown for each basin.

ALABAMA-COOSA RIVER BASIN

The Alabama-Coosa River system drains an area of 22,800 square miles, of which about 130 square miles are in Tennessee, 5,350 square miles are in Georgia, and 17,320 square miles are in Alabama. The basin has a maximum width of 110 miles and extends about 320 miles from southeast Tennessee and northwest Georgia diagonally across Alabama to the southwest corner of the State.

The River and Harbor Act of March 2, 1945, provides for the initial and ultimate development of the Alabama-Coosa Rivers and tributaries for navigation, flood control, power development, and other purposes. The act includes authorization for modification of the original plan as may be advisable from time to time in the discretion of the Secretary of the Army and the Chief of Engineers for the purpose of increasing the development of hydroelectric power. This act also authorized the appropriation of \$60 million. Additional monetary authorization totaling 72 million has been provided by subsequent acts, bringing the total monetary authorization to \$132 million.

Total estimated cost of projects in plan.....	\$578, 000, 000
Present monetary authorization.....	132, 000, 000
Appropriations through June 30, 1968.....	103, 000, 000
Remaining monetary authorization.....	29, 000, 000
Additional scheduled obligations through calendar year 1969..	58, 000, 000
Deficit monetary authorization through calendar year 1969..	29, 000, 000

Projects and amounts on which requested authorization is planned to be used

Project :	Amount
Alabama River Channel improvement, Alabama.....	\$50, 000
Carters Dam, Ga.....	12, 070, 000
Claiborne lock and dam, Alabama.....	3, 000, 000
Jones Bluff lock and dam, Alabama.....	12, 480, 000
Millers Ferry lock and dam, Alabama.....	1, 500, 000
Total requested authorization.....	29, 100, 000

ARKANSAS RIVER BASIN

The Arkansas River Basin contains an area of about 160,500 square miles. The basin is about 870 miles in length in a east-west direction and approximately 185 miles in average width. It extends from the Rocky Mountains on the west to the Mississippi River on the east. The drainage basin occupies parts of the States of Colorado, New Mexico, Kansas, Oklahoma, Texas, Missouri, and Arkansas.

The general comprehensive plan for flood control and other purposes in the Arkansas River Basin was adopted by the Flood Control Act approved June 28, 1938, which authorized an appropriation of \$21 million for partial accomplishment of the plan. The plan has been further amended and modified and additional monetary authorization provided by subsequent acts.

The River and Harbor Act of July 24, 1946, authorized construction of a multiple-purpose plan for improvement of the Arkansas River Basin, Ark. and Okla., for navigation, flood control, and other purposes, and authorized the appropriation of \$55 million for partial accomplishment of the plan. This plan has likewise been modified by subsequent acts, and additional monetary authorization provided.

The Flood Control Act of July 14, 1960, incorporated the authorized flood control plan and the multiple-purpose plan into a single plan of development and provided that all authorizations made available for the Arkansas River Basin would be applicable to the combined plan of development. The monetary authorization provided for the combined plan totals \$1,143 million.

Total estimated cost of projects in plan.....	\$1, 367, 000, 000
Present monetary authorization.....	1, 143, 000, 000
Appropriations through June 30, 1968.....	1, 055, 000, 000
Remaining monetary authorization.....	88, 000, 000
Additional scheduled obligations through calendar year 1969..	196, 000, 000
Deficit monetary authorization through calendar year 1969	108, 000, 000

*Projects and amounts on which requested authorization is planned to be used***Project:**

Arkansas River bank stabilization, Oklahoma and Arkansas	\$3, 550, 000
Dardanelle lock and dam, Arkansas	6, 218, 000
Navigation locks and dams, Arkansas and Oklahoma	57, 600, 000
Oologah Reservoir, Okla.	3, 729, 000
Ozark lock and dam, Arkansas	10, 035, 000
Robert S. Kerr lock and dam, Oklahoma	10, 600, 000
Webbers Falls lock and dam, Oklahoma	15, 900, 000
6 projects for recreational development	766, 000

Total requested authorization	108, 398, 000
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BRAZOS RIVER BASIN

The Brazos River rises in eastern New Mexico and flows southeasterly 1,210 miles to the Gulf of Mexico near Freeport, Tex. The watershed has an overall length of 640 miles and a maximum width of about 120 miles. Its total area is about 44,670 square miles.

The Flood Control Act approved September 3, 1954, adopted the basinwide plan of improvement in the Brazos River Basin and authorized the appropriation of \$40 million for partial accomplishment of that plan. The plan includes reservoirs for flood control and allied purposes and projects for local flood protection. Additional authorization in the amount of \$74 million has been provided by subsequent acts bringing the total to \$114 million.

Total estimated cost of projects in plan	\$208, 000, 000
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Present monetary authorization	114, 000, 000
Appropriations through June 30, 1968	109, 000, 000

Remaining monetary authorization	5, 000, 000
Additional scheduled obligations through calendar year 1969	7, 000, 000

Deficit monetary authorization through calendar year 1969	2, 000, 000
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*Projects and amounts on which requested authorization is planned to be used***Project:**

	<i>Amount</i>
San Gabriel River, Tex.	\$1, 810, 000
3 projects for recreational development	190, 000

Total requested authorization	2, 000, 000
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CENTRAL AND SOUTHERN FLORIDA

The project lies generally within 18 counties of Florida covering an area of about 16,341 square miles. It is comprised of the upper St. Johns River Basin in the northeastern section of the project; the Kissimmee River Basin in the central section above Lake Okeechobee; the Lake Okeechobee-Everglades area in the central and southwestern section; and the east coast-Everglades area in the southeastern section.

This project provides for modification and expansion of works in an area embracing Lake Okeechobee, a large portion of the Everglades, the upper St. Johns and Kissimmee River Basins, and the lower east coast of Florida. The project was authorized in the Flood Control Act of June 30, 1948, which also authorized the appropriation of \$16,300,000 for partial accomplishment of the first phase of the plan. Subsequent legislation has increased the monetary authorization and expanded the project to include additional improvements. The monetary authorization provided to date totals \$171 million.

Total estimated cost of projects in plan	\$269, 000, 000
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Present monetary authorization	171, 000, 000
Appropriations through June 30, 1968	160, 000, 000

Remaining monetary authorization	11, 000, 000
Additional scheduled obligations through calendar year 1969	26, 000, 000

Deficit monetary authorization through calendar year 1969	15, 000, 000
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Project and amounts on which requested authorization is planned to be used

	<i>Amount</i>
Project: Central and southern Florida.....	15,000,000
Total requested authorization.....	15,000,000

COLUMBIA RIVER BASIN

The Columbia River Basin drains an area of 259,000 square miles, of which 219,500 square miles are in the United States and 39,500 square miles are in Canada. The basin includes most of the States of Oregon, Washington, and Idaho; western Montana; small areas in Nevada, Utah, and Wyoming; and the southeastern drainage of the Province of British Columbia, Canada. The river flows a distance of 462 miles in Canada and 745 miles in the United States, for a total distance of 1,207 miles.

The Flood Control Act of June 28, 1938, approved the general comprehensive plan for flood control and other purposes in the Willamette River Basin and authorized \$11,300,000 for the initiation and partial accomplishment of the recommended plan. Individual projects were authorized in the Columbia and Willamette River Basins by the Flood Control Act of June 22, 1936, and subsequent acts. The Flood Control Act of May 17, 1950, approved a general comprehensive plan for both the Columbia and Willamette River Basins for flood control and other purposes and authorized the appropriation of \$115 million for the partial accomplishment of the plan. This monetary authorization has been increased by later acts. Monetary authorization provided to date totals \$1,294 million.

Total estimated cost of projects in plan.....	\$2,070,000,000
Present monetary authorization.....	1,294,000,000
Appropriations through June 30, 1968.....	1,234,000,000
Remaining monetary authorization.....	60,000,000
Additional scheduled obligations through calendar year 1969.....	253,000,000
Deficit monetary authorization through calendar year 1969	193,000,000

Projects and amounts on which requested authorization is planned to be used

<i>Project:</i>	<i>Amount</i>
Cascadia Reservoir, Oreg.....	\$200,000
Dworshak Reservoir, Idaho.....	57,872,000
Green Peter and Foster Reservoir, Oreg.....	1,075,000
John Day Lock and Dam, Oregon and Washington.....	23,430,000
Libby Reservoir, Mont.....	82,045,000
Strube Dam, Oreg.....	30,000
The Dalles Dam, units 15 through 22.....	27,654,000
Willamette bank protection, Oregon.....	508,000
John Day River, Oreg.....	31,000
3 projects for recreational development.....	385,000
Total requested authorization.....	193,230,000

MISSOURI RIVER BASIN

The Missouri River Basin drains an area of 519,000 square miles, of which 509,375 square miles are in the United States and 9,715 square miles are in Canada. The basin includes all of Nebraska, most of South Dakota, large portions of North Dakota, Montana, and Wyoming, about half of Kansas and Missouri; and smaller parts of Colorado, Iowa, and Minnesota. From its source in southwestern Montana, it flows for a distance of 2,460 miles to enter the Mississippi River above St. Louis, Mo.

A general comprehensive plan for flood control and other purposes in the Missouri River Basin was approved by the Flood Control Act of June 28, 1938.

which also authorized \$9 million for initiation and partial accomplishment of the plan. The Flood Control Act approved December 22, 1944, expanded the general comprehensive plan for the Missouri River Basin to include the coordinated plan of the Corps of Engineers and the Bureau of Reclamation, and authorized the appropriation of \$200 million for each agency. Additional projects and monetary authorizations have been included in subsequent acts, bringing the total monetary authorization to date to \$1,462 million.

Total estimated cost of projects in plan-----	\$2, 160, 000, 000
Present monetary authorization-----	1, 462, 000, 000
Appropriation through June 30, 1968-----	1, 418, 000, 000
Remaining monetary authorization-----	44, 000, 000
Additional scheduled obligations through calendar year 1969--	82, 000, 000
Deficit monetary authorization through calendar year 1969 -----	38, 000, 000

Projects and amounts on which requested authorization is planned to be used

Project:	Amount
Big Bend Reservoir, S. Dak-----	\$940, 000
Hillsdale Reservoir, Kans-----	165, 000
Kaysinger Bluff Reservoir, Mo-----	12, 700, 000
Lawrence, Kans-----	1, 498, 000
Melvorn Reservoir, Kans-----	6, 885, 000
Missouri River Levee System-----	3, 604, 000
Oahe Reservoir, S. Dak-----	1, 300, 000
Osawatomie, Kans-----	412, 000
Perry Reservoir, Kans-----	3, 731, 000
Stockton Reservoir, Mo-----	5, 500, 000
Topeka, Kans-----	669, 000
8 projects for recreational development-----	862, 000
Total requested authorization-----	38, 266, 000

OHIO RIVER BASIN

The Ohio River is formed by the junction of the Allegheny and Monongahela Rivers at Pittsburgh, and flows in a general southwesterly direction to join the Mississippi River at Cairo, Ill. Its length is 981 miles, and its basin comprising 204,000 square miles, lies between the Allegheny Mountains on the east and the Mississippi River Basin on the west. The basin is about 800 miles long along the northeast-southwest axis, and about 500 miles wide along its northwest-southwest axis. Lying in the basin are major portions of Ohio, Indiana, West Virginia, Kentucky, and Tennessee; large areas of Pennsylvania, Virginia, North Carolina, Alabama, and Illinois; and parts of New York, Maryland, Georgia, and Mississippi.

The Flood Control Acts of June 22, 1936, August 28, 1937, and June 28, 1938, approved a general comprehensive plan for flood control and other purposes in the Ohio River Basin, consisting of reservoirs, levees, floodwalls, and drainage structures for protection of cities and towns. Those acts were amended and supplemented by subsequent acts, which also included monetary authorizations for further prosecution of the comprehensive plan. The monetary authorization provided to date totals \$1,053 million.

Total estimated cost of projects in plan-----	\$1, 349, 000, 000
Present monetary authorization-----	1, 053, 000, 000
Appropriations through June 30, 1968-----	1, 023, 000, 000
Remaining monetary authorization-----	30, 000, 000
Additional scheduled obligations through calendar year 1969--	65, 000, 000
Deficit monetary authorization through calendar year 1969--	35, 000, 000

Projects and amounts on which requested authorization is planned to be used

Project :	Amount
Big Darby Reservoir, Ohio-----	\$750,000
Brookville Reservoir, Ind-----	4,300,000
Burnsville Lake, W. Va-----	2,480,000
Caesar Creek Reservoir, Ohio-----	1,900,000
Cave Run Reservoir, Ky-----	5,500,000
East Fork Reservoir, Ohio-----	2,700,000
East Lynn Lake, W. Va-----	7,235,000
England Pond Levee, Ill-----	38,000
Frankfort, Ky-----	700,000
Island Levee, Ill-----	520,000
J. Percy Priest Reservoir, Tenn-----	679,000
Paint Creek Reservoir, Ohio-----	4,330,000
Rochester and McClearys Bluff Levee, Ind-----	334,000
Summersville Lake, W. Va-----	310,000
West Fork Lake, W. Va-----	50,000
West Terre Haute, Ind-----	900,000
17 projects for recreational development-----	2,281,000
Total requested authorization-----	35,007,000

OUACHITA RIVER BASIN

The Ouachita River Basin, comprising about 25,000 square miles within the Red River Basin, is located in the southern half of Arkansas and the northwestern part of Louisiana.

The River and Harbor Act of May 17, 1950, approved the general plan for flood control and other purposes in the Ouachita River Basin and authorized the appropriation of \$21,300,000 for initiation and partial accomplishment of the plan. The authorized plan consists of channel improvements for flood control for Bayou Bartholomew, Ark. and La., Pine Bluff, Ark., DeGray Reservoir, Ark., Murfreesboro Reservoir, Ark., and a floodwall at Monroe, La. The monetary authorization has been increased by subsequent acts bringing the total monetary authorization to \$40 million.

Total estimated cost of projects in plan-----	\$80,000,000
Present monetary authorization-----	40,000,000
Appropriations through June 30, 1968-----	35,000,000
Remaining monetary authorization-----	5,000,000
Additional scheduled obligations through calendar year 1969---	15,000,000
Deficit monetary authorization through calendar year 1969--	10,000,000

Projects and amounts on which requested authorization is planned to be used

Project :	Amount
Bayou Bartholomew, Ark. and La-----	\$655,000
DeGray Reservoir, Ark-----	9,105,000
Monroe, La-----	270,000
Total requested authorization-----	10,010,000

SAN JOAQUIN RIVER BASIN

The San Joaquin River, the only exterior drainage channel for an area of about 32,000 square miles, has its source in the Sierra Nevada Range about 25 miles southeast of the Yosemite Valley, Calif.

The Flood Control Act approved December 22, 1944, adopted the plan of improvement for flood control and other purposes on the lower San Joaquin River and tributaries, including the Tuolumne and Stanislaus Rivers, and authorized the appropriation of \$8 million for partial accomplishment of the plan. This monetary authorization has been increased by later acts, bringing the total monetary authorization to date to \$31 million.

Total estimated cost of projects in plan-----	\$164, 000, 000
Present monetary authorization-----	31, 000, 000
Appropriations through June 30, 1968-----	30, 000, 000
Remaining monetary authorization-----	1, 000, 000
Additional scheduled obligations through calendar year 1969--	18, 000, 000
Deficit monetary authorization through calendar year 1969--	17, 000, 00

Projects and amounts on which requested authorization is planned to be used

Project:	Amount
New Don Pedro Reservoir, Calif-----	\$2, 170, 000
New Melones Reservoir, Calif-----	14, 860, 000
Total requested authorization-----	17, 030, 000

SOUTH PLATTE RIVER, COLO.

The South Platte River rises on the Continental Divide in central Colorado, and flows northeasterly to its confluence with the North Platte River at North Platte, Nebr. The drainage area of 24,030 square miles includes a section of the rugged eastern slope of the Rocky Mountains, with elevation exceeding 14,000 feet and extensive areas of the Great Plains.

The Flood Control Act of May 17, 1950, authorized a plan for flood control and related purposes in the South Platte River Basin in Colorado. The plan consists of Chatfield Reservoir and levee and channel improvements at three locations, including the city of Boulder. The act also authorized the appropriation of \$26,300,000 for partial accomplishment of the plan. Public Law 90-17, approved May 12, 1967, increased the monetary authorization by \$2 million bringing the total to \$28,300,000.

Total estimated cost of projects in plan-----	\$115, 000, 000
Present monetary authorization-----	28, 000, 000
Appropriations through June 30, 1968-----	12, 000, 000
Remaining monetary authorization-----	16, 000, 000
Additional scheduled obligations through calendar year 1969--	28, 000, 000
Deficit monetary authorization through calendar year 1969--	12, 000, 000

Projects and amounts on which requested authorization is planned to be used

Project: Chatfield Reservoir, Colo-----	Amount \$12, 000, 000
Total requested authorization-----	12, 000, 000

UPPER MISSISSIPPI RIVER BASIN

The Upper Mississippi River Basin is that portion of the north-central United States containing the Mississippi River and all tributary streams above the Ohio River, but excluding the Missouri River. The Mississippi River originates at Lake Itasca in central Minnesota, and flows approximately 1,366 miles to a point above the mouth of the Ohio River. This basin area covers 188,000 square miles and includes the larger parts of Minnesota, Wisconsin, Illinois, and Iowa, and small portions of Indiana, South Dakota, and Missouri.

The Flood Control Act of June 28, 1938, approved the general comprehensive plan for flood control and other purposes in the Upper Mississippi River Basin, consisting of reservoirs and local flood protection works on the upper Mississippi and Illinois Rivers, and authorized the appropriation of \$9.3 million for their construction. Subsequent acts have increased the authorization and modified the plan to include additional projects. The monetary authorization provided to date totals \$119 million.

Total estimated cost of projects in plan.....	\$175,000,000
Present monetary authorization.....	119,000,000
Appropriations through June 30, 1968.....	117,000,000
Remaining monetary authorization.....	2,000,000
Additional scheduled obligations through calendar year 1969..	7,000,000
Deficit monetary authorization through calendar year 1969..	5,000,000

Projects and amounts on which requested authorization is planned to be used

Project:	Amount
Red Rock Reservoir and Lake, Red Rock, Iowa.....	\$4,670,000
Wood River Drainage and Levee District, Ill. (pumping plant) ..	30,000
1 project for recreational development.....	25,000
Total requested authorization.....	4,725,000

WHITE RIVER BASIN

The White River rises in northwestern Arkansas, flows northeasterly into southern Missouri, and thence southeasterly back into Arkansas to join the Mississippi River at about mile 580 above the Head of Passes, La. It is about 700 miles long and drains about 27,765 square miles, of which 10,622 are in Missouri and 17,143 are in Arkansas. About 7,000 square miles are within the limits of the Mississippi River backwaters. The latter area is included in the plan for the Lower Mississippi River Basin project.

The general comprehensive plan for flood control and other purposes in the White River Basin was approved by the Flood Control Act of June 28, 1938, which authorized the appropriation of \$25 million for initiation and partial accomplishment of the plan. Subsequent legislation has authorized additional amounts for continuation of the plan, and modified it to include additional projects. The monetary authorization provided to date totals \$286 million.

Total estimated cost of projects in plan.....	\$347,000,000
Present monetary authorization.....	286,000,000
Appropriations through June 30, 1968.....	285,000,000
Remaining monetary authorization.....	1,000,000
Additional scheduled obligations through calendar year 1969..	3,000,000
Deficit monetary authorization through calendar year 1969..	2,000,000

Amounts on which requested authorization is planned to be used

Project: 6 projects for recreational development (total requested authorization)	Amount \$1,820,000
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WEST BRANCH SUSQUEHANNA RIVER BASIN

The project for flood control on the West Branch Susquehanna River Basin, Pa., was authorized by the Flood Control Act of September 3, 1954. The authorization was in accordance with the recommendations contained in House Document 29, 84th Congress. This document recommended a project consisting of a system of three flood control reservoirs—Blanchard (now Foster Joseph Sayers Dam), Curwensville, and Kettle Creek (now Alvin R. Bush Reservoir) located in the headwaters of the west branch at a total estimated cost of \$62,520,000. Congress authorized the appropriation of \$25 million for partial accomplishment of the project. Subsequent legislation has authorized a total additional appropriation of \$28 million to continue construction of the project.

The Alvin R. Bush (Kettle Creek) Reservoir has been completed. Curwensville Reservoir is essentially complete, with only minor items of work remaining to be closed out. The Foster Joseph Sayers Dam (Blanchard Reservoir) is well underway and construction is about 75 percent complete.

The total cost of the West Branch Susquehanna River Basin project subject to monetary limitation is presently estimated to cost \$55,700,000. Total monetary authorization to date is \$53 million. An additional \$3 million in monetary authorization is estimated to be required for continuation of scheduled construction on this project through calendar year 1969. Since this amount is also considered adequate to complete construction of the three reservoir projects included in the basin plan, the committee has included language in the bill which will authorize completion of the West Branch Susquehanna River Basin project.

