TOCKS ISLAND DEAUTHORIZATION

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HEARINGS

BEFORE THE

OMMITTEE ON WATER RESOURCES

OF THE

IMITTEE ON PUBLIC WORKS

UNITED STATES SENATE

NINETY-FOURTH CONGRESS

SECOND SESSION

ON

S. 3106

A BILL TO TERMINATE THE AUTHORIZATION FOR THE TOCKS ISLAND RESERVOIR PROJECT AS PART OF THE DELAWARE RIVER BASIN PROJECT, AND FOR OTHER PURPOSES

JULY 23 AND 26, 1976

SERIAL NO. 94–H52

Printed for the use of the Committee on Public Works

AUTHENTICATED
U.S. GOVERNMENT
INFORMATION
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U.S. GOVERNMENT PRINTING OFFICE

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TOCKS ISLAND DEAUTHORIZATION

FRIDAY, JULY 23, 1976

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

The subcommittee met at 9:35 a.m., in room 4200, Dirksen Senate Office Building, Hon. Pete V. Domenici presiding.

Present: Senators Randolph and Domenici.

OPENING STATEMENT OF HON. PETE V. DOMENICI, U.S. SENATOR FROM THE STATE OF NEW MEXICO

Senator DOMENICI. The subcommittee will please come to order.

This morning the Subcommittee on Water Resources begins the first of two hearings on Senate bill 3106, a bill to deauthorize the Tocks Island project.

Senator Gravel, chairman of the subcommittee, has asked me to express his regret that he is unable to be here this morning.

This project has been the subject of controversy since its authorization in 1962. A $1.5 million reevaluation of the project was authorized by the Appropriations Committee in fiscal year 1975 and was completed about a year ago. While the study indicates that the project as authorized was the most cost effective way of meeting flood control and water supply problems in the affected States of Pennsylvania, New York, and New Jersey, a majority of the members of the Delaware River Commission voted to withhold construction funds. The Corps of Engineers subsequently announced its intention to ask Congress to deauthorize the project.

The bill before us today, S. 3106, would do this. It would also authorize the transfer of lands already acquired to the Secretary of Interior, and enable him to continue land acquisition for the national recreation area surrounding the project site. The relocation of U.S. Highway 209 by the Secretary of Interior would also be authorized.

I come to this hearing today with an open mind. I was not a member of the Public Works Committee when Tocks Island was originally authorized. Nor did I play any part in subsequent congressional actions related to the project. I do not represent any of the affected States.

Today the subcommittee will hear from Members of Congress, the Corps of Engineers, the Department of the Interior, and from representatives of the affected States. On Monday testimony will be received from local government witnesses and from the public.

I understand that Congressman Robert Edgar is here and that he would like to go first.

We are ready for you, Congressman, but before you begin, for the record I will indicate that statements of Senator Javits, Congressman Edward Patten, Congressman Pierre du Pont, and Congresswoman Helen Meyner will be made a part of the record at this point.

[The statements referred to and the bill, S. 3106, follow:]

STATEMENT OF SENATOR JACOB K. JAVITS BEFORE THE SUBCOMMITTEE ON WATER RESOURCES, COMMITTEE ON PUBLIC WORKS, FRIDAY, JULY 23, 1976

Mr. Chairman, members of the subcommittee: I am pleased to have this opportunity to express my support of S. 3106 to deauthorize the Tocks Island Lake project.

In considering this bill, the Congress gives itself a second chance to save the beautiful Delaware Water Gap, an historic preserve of wilderness and a free flowing river. When it was authorized by Congress 16 years ago, the purpose of the Tocks Island dam was to provide flood control, water supply, power and recreation in the area. Arguments for the project then seemed valid but the passing years have raised questions regarding the fiscal wisdom, environmental benefits and need for this type of project. Alternatives have been presented for flood control, water supply, power and recreation in the Delaware Basin at far less financial and environmental cost.

This, I believe, reflects a fresh and thoughtful environmental conscience among citizens and government--a conscience that must be heeded.

The bill before us, of which I am a cosponsor, would terminate all authorization for the Tocks Island Reservoir project and transfer all land purchased by the Army Corps of Engineers for the dam area. All remaining authority and unexpended appropriations would be transferred to the Department of the Interior.

At the same time, it establishes a priority scheme for orderly transfer and continued development of the national recreation area. Primary consideration is given to landowners whose property has previously been condemned for purchase and to those who would suffer if purchase of their land was delayed. Landowners willing to sell their propery while maintaining a non-commercial life estate in it are also given consideration.

The bill also allows the Department of Interior to purchase scenic easements rather than an entire tract if it will satisfy the park needs. This will help hold down total acquisition costs and avoid needless relocation.

The project area is a peerless recreation site, one rich in history and close to a heavily urbanized section of the country. The Nation will benefit for years to come from S. 3106, which will preserve this wilderness treasure for the recreation and education of all our citizens.

Statement of

CONGRESSMAN EDWARD J. PATTEN

Before The

WATER RESOURCES SUBCOMMITTEE
SENATE COMMITTEE ON PUBLIC WORKS

In Support Of

TOCKS ISLAND CONSERVATION PROJECT

July 23, 1976

Chairman Gravel and Members of the Subcommittee:

This Project that S 3106 would destroy is essential to the present and future water resource needs of the people, economy, and employment of my District.

The waters of the Delaware River are diverted to us through the Delaware-Raritan canal. We badly need them now, and will need more of them in the future. This congressionally authorized Project makes that possible. It also helps meet our other human needs, such as public lake and land recreation, and electric energy supply.

We strongly oppose deauthorization of Tocks Island.

We most respectfully ask that you do the same.

We have brought this needed conservation project a long way now. It is authorized. We have spent over 60 million of the taypayers' dollars on it, and another $60 million on its surrounding land recreation area. And it is now ready for construction.

It will create "a beautiful lake", in a beautiful area, just as the U.S. National Park Service assured us it would before we authorized it. It will give our State a great multipurpose water resource asset, which it has long needed, the same as we have created in many other States across this great country.

I have a long association with Tocks Island Project, and with the many Governors of the State of New Jersey who urged and supported it as a needed improvement for our people.

As Secretary of State I affixed my signature to our State's participation in the Delaware River Compact. I personally examined the destruction of the disastrous Delaware River floods, which this Project will protect against in the future. I personally examined and endured the problems of the disastrous Delaware River droughts which this Project will protect against in the future.

There is no question of the water resource need for this authorized undertaking. And in my mind there is no likelihood that this growing need can ever be met as effectively, environmentally and economically, by any of its unlikely, theoretical alternatives.

Tocks Island Lake Project will indeed have environmental effects. That is why we support it -- for they are needed, beneficial environmental effects, which will improve the quality of our human environment in New Jersey, for that is an improvement we badly need.

And it will indeed have some adverse effects, all of which we who have lived with this Project know can be cured, corrected, and compensated.

I most earnestly ask that this Committee not destroy this needed, congressionally authorized, conservation undertaking for the working and unemployed people of my District and my State.

I most earnestly urge that this Committee now let us go forward, and bring this needed conservation asset for our area into being.

Thank you very much.

PIERRE S. (PETE) DU PONT
DELAWARE
AT LARGE

COMMITTEES:
INTERNATIONAL RELATIONS
MERCHANT MARINE AND
FISHERIES

Congress of the United States
House of Representatives
Washington, D.C. 20515

July 20, 1976

Senator Michael Gravel
Subcommittee on Water Resources
4204 Dirkson S.O.B.
Washington, D.C. 20515

Attention: ANN GARRABRANT

Dear Ms. Garrabrant:

Enclosed is my testimony to be given July 23, 1976 before the Senate Subcommittee on Water Resources regarding the de-authorization of the Tocks Island Reservoir Project.

Sincerely,

Pierre S. du Pont
Member of Congress

PSduP:mvp

BEFORE THE

UNITED STATES SENATE, COMMITTEE ON PUBLIC WORKS, SUBCOMMITTEE ON WATER RESOURCES

ON

S. 3106 - TO TERMINATE AUTHORIZATION FOR THE TOCKS ISLAND RESERVOIR PROJECT

Mr. Chairman, distinguished colleagues, ladies and gentlemen, as some of you may know, I have for many years had serious reservations respecting the Tocks Island Reservoir Project. I have, at the same time, been acutely aware of the need for effective flood plain management, management of the Basin's limited water resources, provision for the Basin's energy requirements and the availability of recreational resources.

Over years of controversy, particularly since 1970, it has become increasingly clear, however, that the Tocks Project would create serious and adverse social, economic and environmental dislocations which are avoidable. The studies conducted since 1970, particularly the comprehensive analysis completed in July, 1975 as directed by the Congress confirm the disadvantages of the Tocks Project and the existence of feasible alternatives without incurring the adverse impacts of the Tocks Project.

In August, 1974 under the authorization for the comprehensive study, the Congress further directed that a definitive recommendation be submitted to the Congress within twelve months.

Accordingly, the Delaware River Basin Commission met on July 31, 1975 and recommended against further construction funding with Governors Sherman Tribbitt of Delaware, Brendan Byrne of New Jersey and Hugh Carey of New York voting with the majority. Governor Milton Shapp of Pennsylvania dissented.

Subsequently, the Corps of Engineers recommended deauthorization of the project. The Council on Environmental Quality and the Environmental Protection Agency have also recommended deauthorization.

In this posture, it now appears clear to me that we must proceed with meaningful planning of alternatives to meet the needs of the entire Basin which, however, is deterred so long as authorization for the Tocks Project is not terminated. Therefore, I have introduced legislation in the House to deauthorize the project and transfer already acquired lands to the Department of Interior and have joined Mrs. Fenwick of New Jersey in sponsoring H.R. 12462, the companion bill to S. 3106.

Accordingly, I hope that this Committee will also recommend deauthorization of the Tocks Island Reservoir Project.

I appreciate your courtesy and attention to these remarks.

TESTIMONY OF HONORABLE HELEN MEYNER (D-NJ)
TO THE SUBCOMMITTEE ON WATER RESOURCES
COMMITTEE ON PUBLIC WORKS
UNITED STATES SENATE
WASHINGTON, D. C. JULY 23, 1976

Mr. Chairman, members of the Subcommittee--

I appreciate your affording me the opportunity to testify today on S. 3106, a bill to deauthorize the Tocks Island Lake project. As you know, I am a cosponsor of the similar House of Representatives bill, H.R. 12462, and believe strongly that both Houses of Congress should act promptly.

Authorized by Section 203 of the Flood Control Act of 1962 (P.L. 87-874), the Tocks Island project has been the object of 14 years of extensive debate centering on environmental concerns. The legislation provided $90 million for a multipurpose dam across the Delaware River seven miles northeast of Stroudsburg, Pennsylvania, and five miles upstream from the Delaware Water Gap. The dam was to have been 160 feet high, 3,000 feet wide, and would have created a 12,000 acre reservoir extending 37 miles upstream.

This ambitious plan--the eighth largest of any of the Army Corps of Engineers' massive undertakings--met with almost immediate opposition. As the cost estimate spiralled well beyond the $400 million mark, so did public criticism spiral. Opponents of the dam challenged its feasibility and questioned whether its purposes, flood control, hydro-electric power, recreation, and increased water supply, could be served better by alternate means. Permit me to outline some of the reasons against construction of the dam.

Much of the controversy centers on environmental concerns. Construction of the dam would necessitate inundation of 12,000 acres of valley rich in wildlife and little explored archaeological and historical sites. Approximately 40 miles of the Delaware River and 16 miles of its tributaries would be flooded, thus changing the entire ecological balance of the river from a free flowing habitat to an impounded lake capable of supporting only several different species of fish. One fishing area that would be lost is the Flatbrook--one of the best trout fishing streams in New Jersey.

In addition to the valley, 20,000 acres of forests and farmland would be inundated leaving a great number of white-tailed deer homeless.

Other environmental questions include salinity, eutrophication, and salmonella poisoning.

In the study of the project authorized by Congress in 1974, and prepared by Madigan-Praeger, Inc., an independent consulting firm, little mention is made of the fact that saline intrusion from the ocean could damage the reservoir. However, the 1975 Annual Report of the Delaware River Basin Commission, a compact established in 1961 to monitor all activities in the Delaware River Valley, concludes that "...the Tocks Study [done by Madigan-Praeger] did not adequately assess the salinity threat."

Another danger of impoundment of large quantities of water is that of eutrophication. This state of nutrient over-enrichment creates a high-standing mass of algae resulting in soupy green water that is virtually unusable for recreational and drinking purposes. The Madigan-Praeger study states that the dam would be eutrophic but that natural processes and treatment facilities could serve to remove much of the algae for municipal use downstream. However, eutrophication certainly would shorten the life span of the vegetation and would render unuseful the recreation aspect of the project.

Finally, runoff from northern New Jersey poultry farms and some 5,000,000 chickens could introduce a sizeable population of salmonella organisms, a

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proven health hazard and dangerous contaminant.

A resolution adopted by the American Board of Psychiatry and Neurology in July, 1975, opposed the Tocks Island Dam. It said in part:

"...excess eutrophication will result in widespread algal blooms and scum known to be the cause of death in mammals and fish and severe gastrointestinal distress in humans; and

...the upstream runoff of chicken effluent may also lead to contamination with salmonella baccilli and result in the spread of communicable disease; and

...downstream water quality may also be adversely affected."

The proposed dam would have obliterated a section of New Jersey rich in archaeological and historic sites, some dating back to 8000 B.C. The Old Mine Road, a 100-mile roadway built in the 17th century, is one of the longest colonial highways that was used by the Dutch in the copper industry. The Madigan-Praeger study says that earth moving equipment would displace soil to a depth of six feet throughout the dam area which would effectively displace and destroy valuable artifacts and historical items.

The original purpose of the Tocks Island Lake Project (TILP) was to provide flood control. Supporters sought to avert a recurrence of the damage done by the 1955 New Jersey flood which followed two hurricanes in three days.

The Madigan-Praeger study points out that the TILP would not provide adequate protection against floods like the 1955 disaster. All 99 deaths in the 1955 flood occurred on the tributaries of the Delaware River, not the river itself. The dam would have protected neither the tributaries nor the reaches south of the proposed dam site. Since 1955, 19 different flood control structures have been built on the tributaries and large dams in general are believed to be ineffective. In 1966, the Task Force on Federal Flood Control Policy challenged the concept of large dams and recommended instead more effective flood plain regulations.

Perhaps the most appealing aspect of the TILP was its promise of increased water supply. None can deny that such needs exist in New Jersey and, Mr. Chairman, let me state that I am fully aware of and sensitive to the arguments put forth by my friend and distinguished colleague, Honorable Frank Thompson, Jr., and others who favor the TILP for its water supply benefits. Estimates of public water supply needs in northern New Jersey by the year 2025 range from 282 million gallons per day to 810 million. Currently, the state of New Jersey consumes about 300 million gallons per day.

Water needs are real and the TILP dam eventually could generate the 300 M.G.D. at a reasonable cost. Let me point out, however, that there are what the Madigan-Praeger study calls "viable alternatives." The dozen or so suggestions include:

--high flow skimming of the Delaware River into the Delaware River Basin and Round Valley Reservoirs;

--full utilization of the Round River Valley Reservoir; and,

--ground water development in the Raritan and Passaic River Basins and the South Jersey Coastal Plain.

These alternatives could generate more than 700 M.G.D., ample water for now and the foreseeable future.

In a letter to Pennsylvania Governor Milton Shapp, a member of the Delaware River Basin Commission, in July of 1975, U. S. Environmental Protection Agency Director Russell Train wrote:

"...the environmental problems...support a decision to deauthorize the Tocks Island Lake Project and to develop alternative programs to meet the needs of the residents of the Delaware River Basin and surrounding areas....

--the flood control benefits are overstated since another flood of the magnitude of the 1955 flood would cause significantly less damage because of improvements already made.

--the recreation benefits are overstated because they fail to reflect reservoir drawdown and the projected eutrophication of the impoundment.

--the water supply benefits, while real, can be satisfied by a number of alternatives with less severe impacts than the Tocks Island Project;

--the electric power function can be replaced by 1300 MW of combined cycle capacity...."

These and many other reasons have cast serious doubt on the necessity of constructing the Tocks Island dam. Last year, the Delaware River Basin Commission, comprised of the governors of New Jersey, New York, Pennsylvania, and Delaware, and the U. S. Secretary of the Interior, voted not to construct the dam. The Army Corps of Engineers decided subsequently to withdraw its support for the project and called for deauthorization.

The question remains, Mr. Chairman, should the project be deauthorized? Many have suggested that the authorization remain in order to avoid the legislative nightmare of reauthorization "should the dam become necessary." This approach of keeping all options open does not deliver the final blow to the project that its opponents desire. But beyond that, the main reason that this approach is inadequate--and the main reason I am testifying today--is that it overlooks the many residents of the 13th Congressional District of New Jersey who are personally affected by the indecision over Tocks Island and who will continue to suffer until deauthorization is finalized.

In a letter I received this week from the Army Corps of Engineers, Colonel Harry V. Dutchyshyn, Chief Engineer for the Philadelphia district, notes that 71 percent of the land for the Tocks Island Lake Project has already been acquired by the Corps, leaving 19,700 acres of property in a state of limbo. Many of the property owners are in dire need of immediate relief. Some have formally requested hardship-related early acquisition settlements from the Army Corps of Engineers.

By the Corps' own figures, 38 "immediate attention" cases are pending affecting 830 acres and requiring a settlement allocation of $2.9 million. This amount breaks down to:

Estimated Appraised Value	$2,581,000
Relocation benefits	191,000
Real Estate Administrative Costs	209,000

Mr. Chairman, I request permission to insert into the official record at this point Colonel Dutchyshyn's letter outlining the situation of each of these cases.

It is very important to note that the Army Corps of Engineers' figures are based solely on information documented in their files. Realizing that other property owners in similar situations simply may not have contacted the Corps and, that in addition to hardship cases, some 19,000 additional acres of land have yet to be acquired from their private owners, the figures represent only a fraction of the actual problem caused by the stalled acquisition process.

Fiscal impact in the area is further exacerbated by the loss of tax ratables.

The once private land acquired by the federal government will return taxes to the affected municipalities again if effective payment-in-lieu-of-taxes legislation passes this Congress. There have never been any doubts that these privately owned lands would be acquired eventually, but the lack of adequate appropriation for such acquisitions merely adds to the confusion, frustration, and exasperation that the residents have experienced for far too long.

Money for the private owners awaiting settlement and for municipalities will become available only when this on-again, off-again authorization is resolved and clear federal jurisdiction of the acquired lands is established. The Madigan-Praeger study points out that if Congress should decide to deauthorize the Tocks Island Lake Project, it should also (1) reestablish the authorization for the recreation area, and (2) make provision for the completion of the land acquisition process.

S. 3106 does both those things. In addition to deauthorizing the TILP, S. 3106 provides that all real property acquired to date by the Army Corps of Engineers be transferred to the aegis of the Department of the Interior for use as a national park. Also, it mandates continuing acquisition to relieve the strain on property owners. After 14 years of uncertainty and confusion regarding the status of their property, the residents of the area deserve at least the long overdue justice of settlement. Before this can occur, the TILP must be deauthorized.

I strongly urge your prompt attention to and affirmative decision on this legislation for deauthorization of the Tocks Island Lake Project.

DEPARTMENT OF THE ARMY
PHILADELPHIA DISTRICT. CORPS OF ENGINEERS
CUSTOM HOUSE—2 D & CHESTNUT STREETS
PHILADELPHIA. PENNSYLVANIA 19106

IN REPLY REFER TO
NAPRE-P

Honorable Helen Meyner
House of Representatives
Washington, DC 20515

Dear Mrs. Meyner:

This is in response to your 21 June 1976 letter to the Office of the Chief of Engineers which was forwarded to me for reply. Your letter requested the following information:

a. Written estimates of the total value of those lands remaining to be purchased in order to complete the acquisition of all lands originally intended for inclusion in the Tocks Island Lake Project and/or Delaware Water Gap National Recreation Area.

b. A list of parcels which would be categorized as "early acquisition hardship cases", including the criteria applied to determine which lands meet this classification.

We have acquired 71% of the ~~land at a cost of 103 million dollars.~~ The total estimated cost of lands remaining to be acquired includes lands and relocation payments, court awards and settlements, and administrative costs. The estimate includes a 25% escalation factor based upon the assumption that the tracts will be acquired over the next two to three years.

	ACRES	ESTIMATED COST
Tocks Island Lake	7,200	$41,000,000
Delaware Water Gap National Recreation Area	12,500	24,800,000
TOTAL	19,700	$65,800,000

VANGUARD OF FREEDOM BICENTENNIAL 1775-1975 UNITED STATES ARMY

AMERICAN REVOLUTION BICENTENNIAL 1776-1976

The Corps has no official criteria for determining whether or not a request for acquisition should be classified as "hardship". In 1969, the term "early acquisition/hardship" was used when funds were made available with the proviso that they be used for the purpose of acquiring "hardship" cases. At that time, a landowner was listed in the "early acquisition/hardship" category because he expressed a desire to be considered as such. We do not investigate the personal affairs of each landowner to independently establish that a financial hardship exists based upon specific criteria.

Inclosed listings of "early acquisition/hardship" cases have been prepared from information documented in our files. The bases for such information are requests from landowners for early acquisition made by mail (including Congressional inquiries), telephone, and personal visits to the office. In many of these cases, the District initiated negotiations to purchase the property based on the request of the owner. However, negotiations were halted when acquisition funds were curtailed by Congress. The listings are not intended to represent the results of a survey of all landowners in the area and do not necessarily reflect the current desires since the personal circumstances of the landowners may change. Also, there may be many who could claim financial hardship but who have not contacted the Corps. Others may be awaiting the decision regarding project deauthorization and the attendant land acquisition policy.

Inclosure 1 is a listing of "hardship" cases on residential dwelling tracts involving landowners with whom the Corps made contact for the purpose of acquiring their property. Negotiations for the purchase of the property were suspended when federal funds were not made available. In anticipation of completion of the acquisition of their properties, the landowners purchased replacement housing and are now paying mortgages and taxes on two properties.

Inclosures 2, 3, and 4 are listings of tracts involving other residential dwellings, commercial properties, seasonal properties, and unimproved land. The landowners requested early acquisition due to alleged financial hardship. Other information concerning reasons for their requests are noted on the inclosures.

Each listing includes the estimated land and relocation costs, which are summarized as follows:

Estimated Appraised Value (Including Contingency Factor)	$2,581,000
Relocation Benefits Under Public Law 91-646	191,000
Real Estate Administrative Costs	209,000
TOTAL	$2,981,000

I trust this information will be satisfactory for your purposes.

Sincerely yours,

Harry V. Dutchyshyn

HARRY V. DUTCHYSHYN
Colonel, Corps of Engineers
District Engineer

4 Incl
As stated

Copy Furnished:
Honorable Helen Meyner
Representative in Congress
32 Bridge Street
Lambertville, NJ 08530

TOCKS ISLAND LAKE PROJECT - EARLY ACQUISITION REQUESTS

RESIDENTIAL DWELLINGS

PURCHASED REPLACEMENT HOUSING - FINANCIAL HARDSHIP

TRACT NO.	NAME	ACRES	COMMENTS
7600	A. Fish	14.46	Elderly widow; ltr 2/19/73 requested action: contacted Congresswoman Meyner.
7604-1, 2	Waldman	1.30	Elderly: ltrs dtd 11/6/73 & 2/4/76 requested action.
7609-1, 2	Drelich	44.91	Elderly; made numerous personal calls, visited PDO 1/16/76; negotiated agreement - no funds.
8856	Welsh	1.21	Last ltr dtd 4/15/75 requested action; elderly: latest congressional 2/21/75.
10542	Eschner	14.20	Elderly: congressional inquiries 11/10/75 & 1/6/76.
11300	Hyatt	2.17	Congressional inquiries dtd 8/22/75 & 7/22/75: elderly.
11900	Pitman	70.21	Farm: condemnation recommended - no funds: last telecon contact dtd 11/4/75 requested action.

Total Estimated Appraised Value	$430,500
Total Estimated Benefits Under Public Law 91-646	54,700
Contingency	64,700
Total	$549,900

Total Acreage - 148.46

TOCKS ISLAND LAKE PROJECT - EARLY ACQUISITION REQUESTS

RESIDENTIAL DWELLINGS

TRACT NO.	NAME	ACRES	COMMENTS
7502	G. B. Thomas	1.25	Elderly widow; telecon 1/6/76 and ltr 1/9/76 requested action; purchased replacement; fears vandalism; Congressional 5/10/76
7625	Mildred Peters, Trustee	135.86	Property in trust for present owner/ occupants; mutually agreed to condemnation; not filed due to lack of funds; last ltr dtd 7/3/74 requested action.
8012	Walpack Inn/ Heigis	36.14	Last contact by telephone dtd 1/7/76: wants to buy business in new location but cannot: owner lives on tract.
8804	Mark Auto/ Richard G. Huber	4.67	Last congressional 6/17/75; auto parts by mail order; surrounded by Fed. land; owner resides on tract; also owns Tract No. 8805.
10426-3	Janus	26.78	Elderly widow, alone: ltr dtd 9/9/75 requested action; negotiated agreement - no funds.
11155	Goldhardt	4.55	Ltr dtd 5/5/75 requested action; vandalism in area.
12129	Nucci	0.86	Ltr dtd 10/5/74 requested action.
12144	Snowden	7.62	Residential commercial; telecon 2/5/73 &
12151	Snowden	16.95	ltr 6/30/72 requested action; owner in poor health.
12175	Steflick	0.90	Taxes too high; neighbors all purchased by Gov't; surrounded by Fed. land; last ltr 9/10/73 requested action; fearful because of vandalism.

Total Estimated Appraised Value	$790,800
Total Estimated Benefits Under Public Law 91-646	70,300
Contingency	118,800
Total	$979,900

Total Acreage - 235.58

TOCKS ISLAND LAKE PROJECT - EARLY ACQUISITION REQUESTS

COMMERCIAL PROPERTIES

TRACT NO.	NAME	ACRES	COMMENTS
7801-1, 2, 3	Bunnell	206.67	Ltr dtd 12/16/74 requested action; fears vandalism.
11905	Hampton Co. (Raymondskill Falls)	32.67	Ltr dtd 9/23/75 requested action; owners in poor health and elderly; made personal visit

Total Estimated Appraised Value	$353,750
Total Estimated Benefits Under Public Law 91-646	12,000
Contingency	53,000
Total	$418,750

Total Acreage - 239.34

TOCKS ISLAND LAKE PROJECT - EARLY ACQUISITION REQUESTS

SEASONAL PROPERTIES AND UNIMPROVED LAND

TRACT NO.	NAME	ACRES	COMMENTS
6529-1, 2	Congregation Brith Sholom	16.07	Congressional inquiry 1/6/76; seasonal; negotiated agreement - no funds.
7647	Peter, Darrell	8.62	Ltr dtd 6/23/73 requested action; divorce proceedings initiated; needs money for replacement, seasonal.
8805	Richard G. Huber	3.32	Also owns adjacent Tract 8804 on residential list; unimproved land.
9003	Rodda, Truxon C.	0.25	Elderly; no details given; Ltr 7/14/72 requested action; seasonal.
9014	Cirello	0.34	Telecon 1/28/74 requested action; needs money; medical student; seasonal resident.
9033-1, 2	W. C. Rodda	1.45	Ltr 5/7/72 requested action; seasonal residence; related to owners of Tr. 9008.
9055	H. Derringer	0.85	Ltr 4/24/75 requested action; seasonal resident; negotiations 6/73; fears vandalism.
9056	W. Derringer	1.42	Elderly widow; Ltr 4/24/75 requested action; seasonal resident; was permanent resident until husband died 3/74; owner ill health; parent of H. Derringer, above, Tract 9055.
10210-1	Dan Mar Co.	47.32	No details; Land with cabins owned by lessees; telecon 5/1/73 requested action; seasonal residence.
10220-2	Hull	21.68	Age 88: Ltr dtd 7/30/74 requested action residence destroyed by fire 6/19/74; appraised 5/22/74.
10326	Riemenschneider	0.99	Vacant land; Ltrs 8/12/72 & 12/5/72 requested action; negotiated agreement resulted - no funds.
11000-1	Montague Dev Corp	80.49	Unimproved development; owner elderly; taxes too high; congressional 12/9/71.

SEASONAL PROPERTIES AND UNIMPROVED LAND

TRACT NO.	NAME	ACRES	COMMENTS
11064 11065	Henry Henry	2.22 3.11	Seasonal residence; mailgram 8/2/74 requested action.
11474	Mills	2.48	Initial request 4/23/74; Congressional 10/3/75; was tenant occupied; claimed lost tenants because of pending acquisition.
12110	Poltl	12.99	Seasonal residence; negotiated agreement no funds; moving from area per telephone contact 10/75.
12173	Sparacio	0.41	Elderly; needs money for retirement; request 7/19/74; seasonal; last ltr 10/7/74 requested action; taxes too high.
12526	Walton	0.17	Unimproved; wants to dispose of it; ltr 12/2/74 requested action.
12780	Babcock	1.72	Seasonal cabin; Congressional 7/31/75; isolated; fears vandalism.

Total Estimated Appraised Value	$668,950
Total Estimated Benefits Under Public Law 91-646	54,000
Contingency	100,500
Total	$823,450

Total Acreage - 205.90

94TH CONGRESS
2D SESSION

S. 3106

IN THE SENATE OF THE UNITED STATES

MARCH 9, 1976

Mr. CASE (for himself, Mr. BIDEN, Mr. BUCKLEY, Mr. JAVITS, Mr. ROTH, and Mr. SCHWEIKER) introduced the following bill; which was read twice and referred to the Committees on Public Works and Interior and Insular Affairs jointly by unanimous consent

A BILL

To terminate the authorization for the Tocks Island Reservoir project as part of the Delaware River Basin project, and for other purposes.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That the authorization for the Tocks Island Reservoir project, Pennsylvania, New Jersey, and New York, as part of Delaware River Basin project pursuant to section 203 of the Flood Control Act of 1962, is hereby terminated.

SEC. 2. (a) All real property acquired by the Secretary of the Army pursuant to the authorization of the Tocks Island Reservoir project shall be transferred to the Secretary

of the Interior to be administered as part of the Delaware Water Gap National Recreation Area, pursuant to the Act entitled "An Act to authorize establishment of the Delaware Water Gap National Recreational Area, and for other purposes", approved September 1, 1965 (79 Stat. 612).

(b) All authority of the Secretary of the Army pursuant to such Act of September 1, 1965, and the authorization of the Tocks Island Reservoir project and any unexpended appropriations made for the purpose of such Acts are transferred to the Secretary of the Interior.

SEC. 3. In administering the authority transferred to him pursuant to section 2 the Secretary of the Interior shall give priority to—

(1) completion of acquisition of lands for which condemnation proceedings have been started pursuant to the authorization of the Tocks Island project;

(2) acquisition of lands of beneficial owners, not being a corporation, who in the judgment of the Secretary would suffer hardship if acquisition of their lands were delayed,

(3) acquisition of lands on which, in the judgment of the Secretary, there is an imminent danger of development that would be incompatible with the purposes of the Delaware Water Gap National Recreation Area;

(4) acquisition of lands of beneficial owners, not

being a corporation, who are willing to sell their lands provided they are able to continue to use it for non-commercial residential purposes for a limited period of time which will not, in the judgment of the Secretary, unduly interfere with the development of public use facilities for such national recreation area, pursuant to the authorization for such area;

(5) acquisition of scenic easements when, in the judgment of the Secretary, such easements are sufficient to carry out the purposes for which such national recreation area was authorized; and

(6) acquisition of lands necessary to preserve the integrity of such national recreation area.

SEC. 4. (a) The Secretary of the Interior shall, as part of the authorization for the Delaware Water Gap National Recreation Area, relocate United States highway numbered 209 to the western side of such area in the manner in which such highway was to be relocated by the Secretary of the Army as part of the Tocks Island Reservoir project. Such relocation shall be carried out for the purposes of reducing the environmental impact on such area and improving the safety of such highway. In carrying out the provisions of this section the Secretary of the Interior shall consult with the appropriate public officials of the State or States involved. The Secretary of the Army shall furnish to the Sec-

retary of the Interior such plans, design memorandums, and other materials as have been prepared for the purpose of such relocation by the Secretary of the Army.

(b) There is authorized to be appropriated such amount as is necessary for the purpose of this section.

Senator DOMENICI. Congressman Edgar, you may proceed.

STATEMENT OF HON. ROBERT W. EDGAR, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF PENNSYLVANIA

Mr. EDGAR. Thank you very much. It is a pleasure to be here this morning, and I would like to commend this subcommittee for scheduling hearings on S. 3106. I am sure that others will have lengthy and detailed testimony to present this morning. Therefore, I will limit myself to a brief statement regarding just a few aspects of the Tocks Island Dam.

There have been years and years of study and discussion of all aspects of the Tocks Island Dam, and in these years, the lives of the people in the area of the proposed damsite have been held in limbo. I believe that the time is long overdue for Congress to make a final decision on the fate of the dam.

My interest in the Tocks Island Dam project was aroused last year when I began to review the benefit-cost ratios of the project as calculated at various times in the project's history. I was amazed to see that the benefit-cost ratio went from a low of 0.43 to a high of 1.76 in a period of less than 3 weeks. The draft study dated May 1, 1975, calculated the benefit-cost ratio as 0.43, using a 5⅞ discount rate.[1] Three weeks later, the URS draft revision showed that the benefit-cost ratio had jumped to 1.76.[2] The URS draft revision, dated June 30, 1975, showed a benefit-cost ratio of 1.18.[3]

I could find little explanation for these wildly shifting benefit-cost ratios. Since the benefit-cost calculations would be one of the most important factors that Congress would consider when deciding the fate of the Tocks Island Dam project, I wanted to be sure that the final figures we were considering were accurate. Therefore, in July of 1975, I requessed that the General Accounting Office investigate the data used to make these calculations. Shortly after I made my request, the decision of the Governors was announced, recommending to Congress that the funds for Tocks Island not be appropriated. As a result of their decision, I felt that my request was no longer timely, and I withdrew my request to GAO. However, in the event that deauthorizing legislation fails in Congress and there is a push for construction of the dam, I will renew my request.

I believe that the numerous studies of the Tocks Island Dam project point to the fact that there are cost-effective alternatives to the dam which will meet the project's original aims of enhancing water and power supplies, providing for flood control, and increasing recreational opportunities. On the whole, these alternatives provide for these needs in an environmentally sound manner. Therefore, I support deauthorization of the Tocks Island Dam project.

However, I do have one question about the bill before us today. I question the wisdom of including in S. 3106, a deauthorization bill, language to relocate a highway, Route 209. The original justification for relocating Route 209 was the fact that the road would be flooded if the dam were constructed. If this bill passes and the dam is not

[1] URS draft (pt. C), table 16–15, p. XVI–85. See also p. XVI–78.
[2] URS draft revision, ch. XVI, p. XVI–76.
[3] URS final report, p. XVI–69.

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built, the original justification for relocating the highway will have been removed.

I believe that it would be more logical and appropriate to follow the normal legislative procedure for authorizing highway construction, rather than hastily approving this road relocation in the midst of a deauthorization bill. I believe that a study should be made to insure that relocation of Route 209 is the best solution to the traffic and safety problem in the area. The study should include a projection of traffic patterns that will follow the completion of the interstate highway system, as well as an estimate of the cost and length of time it will take to relocate the road. The study should include an examination of the possibility of closing off the existing Route 209 to commercial traffic and making the road into a scenic route.

Once, again, I want to thank you for scheduling these hearings and for giving me an opportunity to speak.

Senator DOMENICI. Congressman, do you have any idea how much money we have spent to this point?

Mr. EDGAR. I am not sure of the total figures to date. I do know that the Army Corps of Engineers estimates that it will cost about $51 million to relocate just the two-lane highway. And if in fact we move to relocate the highway and make it a four-lane on a higher plane, it will probably cost around $100 million.

Senator DOMENICI. My question had to do with the overall project, not just the road. You don't have any estimates on what we spent in land acquisition, planning, and replanning, and all the other things we have done since 1962?

Mr. EDGAR. I don't have those ffgures.

Senator DOMENICI. We will get them. Perhaps the general can give them to me.

General GRAVES. $60 million.

Senator DOMENICI. Congressman as I indicated in my opening statement, I am not from the area. I have done some reading preparing for the hearing. Is that road used a lot now?

Mr. EDGAR. It is used a great deal now for both commercial and passenger travel. And one of the justifications that is going to be made for relocating the highway is the fact that there is a large number of traffic deaths that occur on the corridor. However, if you will look at an overall map of the area you will notice the interstate that is being connected from New York west and in the north-south corridor, and you can easily see that there are alternative routes. Perhaps this road could be made into a scenic highway and the speed limit could be reduced and the traffic congestion would be eased. I'm not certain that the justification for relocating the highway should be included in this bill at a time when we are talking about deauthorizing the project. I am not sure, either, by what authority the Corps of Engineers would relocate the road. It perhaps would be a good idea to include in the language of the deauthorization bill either a comprehensive study or some way of taking a look at the total traffic pattern in the area and having an updated traffic pattern analysis made to see whether in fact there is justification for moving the highway.

Senator DOMENICI. Let me give you kind of a hindsight reaction on this project, and see if you could share your thoughts with me. It appears to me that projects of this type get too far down the line

before local jurisdictions or the local community finally makes the decision yes or no.

It seems like we should be able to get a project into a planning posture and submit it to the local jurisdictions so that some early-on decisions could be made and we would not be put in this position after so many years have passed or this much money spent and pieces or projects completed. Do you have any thoughts on that?

Mr. EDGAR. I am a member of the Public Works Committee in the House, and I see the review of many projects in various stages of completion, I would agree completely that we need to look at our process so that decisions can be made early. There is a highway that goes through the center of my district that has been on the drawing boards since 1928. There was quite a bit of design study made in 1952. We came up and we built about 7 miles of highway and decided that we didn't have the exact route that we wanted. And now it is 1976 and we are questioning whether we should authorize or deauthorize that construction through the center of a suburban area that we have allowed to develop.

I think there are similarities to this project that has been in the works for a long time, and a lot of steps have taken place, and the decision probably should have been made a lot earlier. I think it is the responsibility of both the Public Works Committee in the Senate and the Public Works Committee in the House to really take a serious look at how in fact projects are authorized, how in fact they are implemented, and perhaps in a step-by-step procedure give some more thought prior to allowing a project to go as far as it has gone. And I think that we should have a more indepth oversight responsibility.

I know in the Public Works Committee in the House on certain projects like soil conservation projects, some Army Corps of Engineers projects, very little input is made by the time they reach the House committee for discussion. It becomes very pro forma at times simply to approve the project if the Congressmen or the Senators from that area approve of the project. I think that we really do need a way in which we can have an initial study, evaluate the project, make the decision yes or no, and then proceed. And unless there are outside circumstances that come to our attention, I think we ought to move on projects a lot more quickly.

Senator DOMENICI. I am reminded—and perhaps this preceded you—that when this project was first started, plans discussed and disclosed, that local government was in support of it and that that attitude has been changing and reached the point now, which you have adequately described, where most of the Governors and Senators involved oppose it. Do you recall anything about the early attitude versus the one now and what happened?

Mr. EDGAR. I think there has been a change in attitude that has been brought about by a number of factors. I think as the project came closer to actual construction state, much of the rhetoric disappeared and people began to look at the environmental impact of the construction.

I believe there were some other ingredients that also prompted the change in attitude. I think some of the early studies took a very wide, broad view of those people who were interested in seeing

something happen. And when they drew the circle to get approval, they went down as far as Philadelphia, as far over as New York City, and it generally looked like a good idea to bring many people to a center location damsite for recreation.

But as they took a little closer look at local interests and local support, they begain to realize that there wasn't unanimous approval that this wilderness area in the midst of a large urban area should be impacted with the large construction of the dam.

The early stages looked good. It looked good for employment. It looked good for water supply. It looked good for electricity needs. As the years went by, it looked less like the miracle that it was to be in its early stages.

Senator DOMENICI. Congressman, we appreciate your testimony. We won't be deciding this for a while, so if there is anything else you would like to contribute or send to us, we will be delighted to make it a part of the record. We appreciate your testimony. Thank you very much.

Mr. EDGAR. Thank you very much.

Senator DOMENICI. We are going to proceed down the list of witnesses. If a witness is not here, we will try to pick them up as soon as we can. Is Congresswoman Fenwick here?

We would delighted to hear your views and your opinion on the project.

STATEMENT OF HON. MILLICENT FENWICK, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF NEW JERSEY

Mrs. FENWICK. Thank you very much. I do believe the time has come to deauthorize the Tocks Island Dam and Reservoir project. It was addressed originally to problems of water supply, flood control, power generation, and public recreation, and Congress sought to achieve these through the dam. But I think these goals can be reached with fewer adverse environmental effects through alternative means.

The creation of a 160-foot dam would create a 37-mile, 12,000-acre lake, and I honestly believe this is not in the best interests of our region.

Questions have arisen ever since the dam was proposed as to the environmental and health impact of damming the beautiful free-flowing Delaware River. As a result, in 1974, Congress authorized an impartial, comprehensive analysis of the Tocks Island proposal. This study included analysis of alternative means of meeting the four primary project goals of water supply, flood control, power generation, and public recreation.

That study was completed and included several viable alternatives to the proposed dam. On July 31, 1975, the Governors of three of the four States bordering the Delaware River voted not to expend any more of the congressionally appropriated funds for the completion of the project. These Governors did, as constitutent members of the Delaware River Basin Commission, recommend that Congress continue land acquisition in the project area, as more than 75 percent has already been acquired.

Today the question is: Should we leave the project in limbo, as some suggest, or deauthorize it?

The Army Corps of Engineers, who developed the original Tocks Island project, admitted that deauthorization would be far more beneficial than indefinite deferral, which the Governors preferred, because, as the chief of Army Engineers has written, "continued indecision will adversely affect needed present and future programs in such areas as nonstructural flood protection, water supply, pollution control, regional and local planning, and land use controls."

I have worked closely with the Army Corps of Engineers in many projects and have always found them most cooperative in understanding of local needs. They understand what this continued indecision means in the way of damage to the area and the people.

It is because I do not feel that the dam serves the best interests of the northeast region, and because we need to offer alternative solutions to the people, that I introduced legislation to deauthorize the project. The bill I introduced on the House side is identical to Senator Case's legislation. This bill recognizes the need for positive action to preserve one of the last natural areas in New Jersey—incidentally, we have 7,500 square miles in our little State and over 7 million people; that is the most densely populated State in the Nation and one of the most densely crowded areas in the world. We do need to preserve this natural area—by proposing a plan to meet the region's needs while maintaining the Delaware as a free-flowing river.

First, I would like to see the Tocks Island Dam project deauthorized. In keeping with the State Governors' suggestions and to insure an adequate recreation area for the crowded Northeast, the bill proposes that all land already acquired by the Secretary of the Army be immediately transferred to the Secretary of the Interior for administration by the National Park Service.

All land acquisition has currently ceased, pending legislation on deauthorization or continuation of the dam and reservoir. The current bill establishes a set of priorities to control future governmental acquisition so that landowners who had long ago agreed to sell their land could complete those transactions and be justly compensated.

This is one of the elements that, I think, is the most frustrating and difficult for the people.

The first priority would be those situations where proceedings have begun but have not been brought to completion because of the halt of Federal funds. Further, priorities would go to landowners who would suffer a great hardship if acquisition of their land is further delayed. Next would be land on which the imminent threat of development would be inconsistent with this establishment of a national recreation area. That is very important, because once it is bought and developed we are lost.

The succeeding priorities would be for owners willing to sell their land if they can retain the so-called life rights to the property and then the acquisition of such scenic easements that would be sufficient to carry out the bill's stated purpose of a national recreation area. Finally, the bill would authorize the Secretary of the Interior to acquire such lands as would be necessary to preserve the integrity of the national recreation area.

I think it is important to emphasize that as we consider the effect the dam would have on the region we must remember that there are alternative solutions. These alternatives, several of which were ex-

plained in the consultants report and the Army Engineers report mandated by Congress in 1974, exist for reaching the project's stated goals. I am sure the committee is aware of these plans. We must examine these alternative methods which would accomplish much the same goals while not having such adverse effects on the environment, human health, and recreation. It seems to me that when examining the total cost, both financial and environmental, the dam and reservoir should not be built.

It the dam is built, the area would suffer environmental, social, and economic disadvantages. The free-flowing river would be halted, removing a natural pollution cleanser.

The lake created by the dam would change the fish and wildlife population of the area, as well as destroy historic and cultural sites. In testimony before the Delaware River Basin Commission, for instance, Mrs. Kathryn Tolbert Smith and Mrs. Elizabeth Hunn Naisby, representing petitioners from New Jersey, reported the possible loss of over 100 archeological sites and many points of interest in the immediate area. They note that preserves from the Archaic, 8000 B.C., and late Paleo, 1000 B.C., periods would be covered by water. So, too, would many Indian camps and burial grounds, as well as 37 miles of the historic Old Mine Road.

In addition to all of this, a lake such as the dam would create does not in my opinion serve the best interests of public recreation. It takes away much of the beauty of natural hiking trails, of canoeing on the Delaware River, which is something that many people do enjoy, and of camping throughout the entire area.

It must be emphasized that we acknowledge the need for which the Tocks Island project was developed. Those needs still exist .We simply want to accomplish those ends with less harm to the environment—to recognize the unique qualities of this part of the Northeast—and it is a goal that can be accomplished.

The area under consideration is one of the most beautiful in the Eastern United States. The Save-The-Delaware-Coalition describes the "national recreation area as now authorized (as) compris(ing) 70,000 acres of forest and field, including 12,000 in the reservoir project itself." The group goes on to say that the area "embraces 40 miles of free-flowing river, averaging 250 feet wide and having a total surface of 1,200 acres. It includes a dozen islands, 10 miles of notable trout stream, two spectacular waterfalls, 50 ponds, a 21-mile mountain ridge, and, of course, the renowned water gap itself, which is one of the East's few great scenic spectacles."

Under our bill, instead of the current project's huge lake filled with manmade structures such as beach centers and trucked-in sand beaches, the area would be used for what it is best suited. It would be administered by the executive department best equipped to handle public recreation, the National Park Service. With a dam, the area would be mostly used only during a 3-month summer period. It would be similar to many other available facilities in the metropolitan area.

But the Delaware Water Gap National Park, serving a national recreation area of nearly 30 million people, by Interior Department estimates, should be structured to promote its unique qualities. Without the dam, the river could be used year round for canoeing and

so on. Administered by the National Park Service of the Department of the Interior, the area could best serve public recreation. Visitor information centers could teach the public about the natural and historic beauty in the immediate area. Farming, and demonstration farms of early farming methods, should be encouraged. These are very popular and would be particularly well suited to this area.

The emphasis should be on a multifaceted recreational and learning experience, designed to promote the area's uniqueness. It would be the kind of recreation area that should be promoted in this country. And I think it would contribute to something that is becoming increasingly important in the public's eyes—and I think rightly—called the quality of life. Every place has its unique quality. We could develop this area with the kind of old-fashioned farming and other techniques native to the place. This is what people are really looking for, not just another marina.

The Governors of three of the four States directly affected by the legislation have recommended no continuation of the Tocks Island Dam. The President's Council on Environmental Quality, the Environmental Protection Agency and the Army Corps of Engineers, who designed the original dam, all now call for deauthorization so alternative plans can be developed and implemented.

Local involved governments call for Tocks Island deauthorization. The Association of New Jersey Environmental Commissions, the spokesman for 240 municipal environmental commissions in New Jersey, also want an end to the proposed dam.

In overwhelming numbers the relevant public is opposed to Tocks Island. The League of Women Voters opposed the project. The Save-The-Delaware-Coalition, a group of environmental organizations, a list of whose members is included in an appendix, includes the Sierra Club, the Appalachian and Adirondack Mountain Clubs and Friends of the Earth, and others, has been formed to oppose the project and propose alternatives. By the way, so, too, does the New Jersey Council of the United Automobile Workers oppose the dam.

Finally, there are those who are saying wait before deauthorizing. But I believe we must vote for deauthorization of the project now. This land should be assigned to one accountable public land management agency. If we wait the area and the people will continue to have no solution. Local governments will be unable to plan for the future. The people who live in the area will not know if eventually the dam will be built, drastically changing their lives.

Action can only come from Congress. I do believe it should come now—to save the Delaware River and the accompanying area, but also to give rightful compensation to those whose private land is now involved in pending legal actions and insure that the States move forward in their plans.

I strongly urge this committee's support of the bill.

Thank you very much.

[An attachment to Mrs. Fenwick's statement follows:]

SAVE THE DELAWARE COALITION

H. A. Lockwood, Jr., Chairman
G. E. Schindler, Jr., Vice Chairman
Henry W. Smith, Vice Chairman
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Senator DOMENICI. Thank you very much. I just have one question. In your statement you indicate that deauthorization would be far more beneficial than indefinite deferral, and then parenthetically you state, "which the Governors preferred." Is there any real difference in their objective; that is, the Governors who are talking about indefinite deferral and your position of deauthorization?

Mrs. FENWICK. I am surprised the Governors even consider delaying deauthorization. I don't understand it, and I have never seen any rationalization, any reasoning behind it. Because as the Army Corps of Engineers and everybody else has pointed out, the delay and indecision itself is one of the most difficult things that we have to deal with. We cannot move to consider, as I think we must, the water supply and flood control problems which should be considered. None of this is being considered because the project is not deauthorized.

Whether you are talking about League of Women Voters, or the Army Corps of Engineers, or the Automobile Workers Union, these people all realize that deauthorization is essential so that we can begin to do what we know we have to do.

And I hope, Senator, it is not necessary for me to tell you I own nothing in this area, and the the compensation which I think these people are entitled to—and speedily—has nothing——

Senator DOMENICI. I understand that. But let me ask, is there any essential role postdeauthorization, if we follow your scheme, for the Corps.?

Mrs. FENWICK. Oh, indeed. I think the Corps should advise us. We may find, for example, that upstream on some of the small rivers we might need some of those detention basins that would be able to hold back some of the flooding that comes. Because not all of the flooding comes on the Delaware, you know. It comes on the tributary streams. And the corps is concerned, rightly and intelligently, in my view. And there is indeed a role for the Corps. There is always a role.

Senator DOMENICI. Let me be more specific. In my State we have a project pending—I don't know if the general is specifically aware of it—a flood control project. There is a dam planned on one of the tributaries. The people think that dam isn't necessary and that it will do substantial environmental harm. Now, what is going to be done is that we are not going to deauthorize the project because that would mean starting all over again. We will introduce a bill that they proceed now with the second phase of planning but they won't build that one structure. We are saying come up with the best you can without it.

Mrs. FENWICK. I understand what you are getting at. You have primarily, as I understand it, the flood problem, haven't you?

Senator DOMENICI. That is correct.

Mrs. FENWICK. We haven't only flood control. We have some flood questions but we also have water supply and recreation. So it is a different concern here. The recreation component of the original project was a rather heavy part of it. I think that we have changed our views a little bit about recreation in my area. We already have several lakes in New Jersey, and a magnificent seashore. This would be a different recreation area. We need something new. People are

very anxious just to go to quiet places. They want to find a place where they can participate in some kind of activity like churning butter, or watch somebody shoe a horse. It is a different view.

If you are going to enjoy a lake, you have to have a boat or be able to swim, and it means a development that people can find in other places. But what they seem to crave is the natural and, if possible, some injection of the antique, the old; they want to discover the way our people used to live. Those are the most popular things and, I think, the most developing. There is more of a learning experience. There is more of a sense of the quality of life.

So our problem, I think, is a little different from yours.

Senator DOMENICI. I don't believe you commented in your prepared remarks on the relocation of the road. Do you have an opinion on that part of the overall problem?

Mrs. FENWICK. That is the road in Pennsylvania, isn't it?

Senator DOMENICI. Yes.

Mrs. FENWICK. I really haven't studied it and wouldn't want to give an opinion.

Senator DOMENICI. We thank you for your testimony.

Is Congressman Thompson here? We understand that you might prefer to wait for Senator Williams.

Mr. THOMPSON. I would be delighted to proceed.

Senator DOMENICI. We thought he might want to introduce you or be with you. What we will do is to have Senator Williams' statement placed in the record at this point and you may then proceed with your statement.

Mr. THOMPSON. I think it might help expedite the matter.

Senator DOMENICI. Thank you very much.

[Senator Williams' statement follows:]

from

Senator Harrison A. Williams, Jr.

NEW JERSEY

352 Russell Senate Office Building • Washington, D.C. 20510 • 202-224-4744

FOR RELEASE: FRIDAY, JULY 23, 10:00 A.M. 76-153

STATEMENT BY THE HONORABLE HARRISON A. WILLIAMS, JR.
BEFORE THE SENATE PUBLIC WORKS SUBCOMMITTEE ON WATER RESOURCES
FRIDAY, JULY 23, 1976

Mr. Chairman, and members of the Subcommittee, I am pleased to be here today and to present Congressman Frank Thompson, the distinguished Chairman of the House Administration Committee and ranking member of the House Education and Labor Committee. Congressman Thompson represents the 4th District in New Jersey which borders a large portion of the Delaware River below Tock's Island. Therefore, he has a deep concern about any measures that would affect water control and supply in New Jersey.

In his testimony, Congressman Thompson will provide valuable insight into the Tock's Island Project, which I believe the Subcommittee will find most helpful. I am sure that you have many witnesses to hear, so with your permission, I would like to make a brief statement.

The Tock's Island Project is a water system plan of considerable consequence. It was originally designed to control and conserve the Delaware River's limited waters for growing public needs. While many questions remain regarding the feasibility of this particular project, the problem of water control and supply remains constant and critical. As Congress did not rush headlong into the authorization of this project, neither should we hastily approve its deauthorization without careful and thorough analysis. Of considerable importance is the question of future water supply in New Jersey.

In the 1975 Praeger-Madigan study on water supply in New Jersey, it was projected that the demand for water would exceed its supply by the year 2010. A similar study done by the New Jersey County and Municipal Government Commission and the Department of Environmental Protection paints an equally bleak picture of New Jersey's water supply. This report reveals that, prior to the severe drought in New Jersey in 1965, there was a greater supply of water than exists today. If another drought were to occur today, it would surely result in greater personal hardships and more severe economic dislocations than those experienced in 1965. These water supply problems must be addressed.

The State of New Jersey has most recently taken a positive step in this direction. It has authorized a 3 year, $1.05 million statewide master water supply study to analyze New Jersey's needs, to investigate alternatives for meeting our water supply problems, and to develop a framework for management and use of future water resources. This study will be the most comprehensive water supply study ever undertaken in the country. Until we can properly assess the study's recommendations, it may not be advisable to rule out any feasible solution in advance. The study could conceivably reveal that the Tock's Island Project is the only means of assuring an adequate water supply. A premature termination of this project may then place us in the position of subjecting it to the long, uncertain legislative process for a second time.

Mr. Chairman, I applaud the Subcommittee's efforts to provide solutions to New Jersey's water supply problems. I believe that the testimony of Congressman Thompson will greatly assist you in these efforts.

STATEMENT OF HON. FRANK THOMPSON, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF NEW JERSEY

Mr. THOMPSON. Thank you very much for this opportunity, Senator. It is nice to be here this morning. I would ask that, if it is appropriate, I may submit some supportive materials if it is indicated that they are necessary.

Senator DOMENICI. Without objection.

Mr. THOMPSON. I am grateful for this opportunity to testify on legislation that would deauthorize the Tocks Island Lake project, and I consider myself somewhat fortunate to follow my distinguished colleague, Mrs. Fenwick, with whom I disagree very strongly on this.

I am opposed to this bill because I believe the record shows the project is as pertinent to the needs of the Fourth Congressional District, which I represent, the State of New Jersey, and the Delaware Valley as it was when it was authorized in 1962.

Parenthetically, I was one of the coauthors of that legislation with the late Francis Walter.

The Tocks Island Dam that would impound the lake is the major and only mainstream impoundment of a series of flood retaining structures recommended by the Corps of Engineers to prevent a reoccurrence of the disastrous flood of August 1955. Time has apparently dimmed the recollection of that flood in some minds, but I can assure you it remains a very vivid memory for the people of Trenton, N.J. The dam was conceived as a multipurpose project, one that will provide a major source of water supply, electric generating capacity, stream augmentation and recreation. These are benefits badly needed by the area to be served by the project.

Mr. Chairman, for confirmation of that assessment, we need look no further than Mr. Russell Peterson, chairman of the President's Council on Environmental Quality. Five years ago, while serving as Governor of Delaware, Mr. Peterson urged the Subcommittee on Public Works of the House Appropriations Committee to approve full funding for the Tocks Island Lake project and said at the time that the project is—and I quote him—"vitally necessary for the full and logical development of the water needs of the Delaware River Valley." Mr. Chairman, that statement is as true today as the day it was made.

I respectfully submit that those who would kill this project bear the burden of proving that these benefits can be attained by other more feasible and less costly methods. However, the public record is barren of any such proof. In fact, last year the Corps of Engineers reported to the House and Senate that on the basis of a thorough independent study the Tocks Island Lake project is technically and financially sound and that it will provide the benefits for which it was authorized at minimal environmental risk.

I would be less than candid, Mr. Chairman, if I did not express my sense of dismay at those who denigrate the need for flood control on the Delaware. We hear a good deal of talk about a nonstructural solution to avoid future floods. Those advancing such a solution are in effect telling the thousands of people who live and work on the floodplain, "Get out or get wet."

In passing, I fail to understand how or why it is in the public interest to advocate flood control measures for the Passaic River, the Rahway River and the Raritan, but for those who live on the Delaware similar efforts become a boondoggle.

In addition to its obvious recreation potential, the Tocks Island Lake would serve a threefold purpose for the basin area. It would go further than any other means yet identified to meet the water supply needs of the north Jersey metropolitan area for the foreseeable future. It would also assure guaranteed flows in the lower river so that the cities of Philadelphia and Camden and the many industrial users then would never again have to face the threat of saline contamination that confronted the area in the drought years of the 1960's.

Finally, the Tocks Lake could serve as a water storage pool for a 1.3 million kW pump storage generating project for the northeast power grid if the requisite approvals were granted by the appropriate regulatory agencies. The need in the Northeast for clean, safe electric power is so apparent, Mr. Chairman, as to be almost beyond discussion.

On July 1 the Department of Environmental Protection announced its intention to let a $1,050,000 contract to prepare a statewide water supply plan. It would defy common sense, Mr. Chairman, for Congress to give serious thought to deauthorizing a project that will supply New Jersey with 300 million gallons of water a day at a time when the State is letting a contract for a long-range water supply plan.

Mr. Chairman, as the subcommittee knows, metropolitan north Jersey is a "water deficit" area; that is to say, its population consumes much more water than the area yields. Thus, the area must draw on the Delaware River to meet its daily requirements. There has been bitter dispute over the years between New York, New Jersey, and Pennsylvania as to how the Delaware's water is to be allocated as between the States. The dispute was resolved in 1954 and the agreement was incorporated in a decree issued by the Supreme Court of the United States. The decree grants New York a diversion right of 800 million gallons a day, half the current supply for the city of New York, and New Jersey a diversion of 100 million gallons a day, of which we are now utilizing 69.2 millions gallons a day.

I make mention of New Jersey's diversion right because it has quite recently been brought into question by the water commissioner of the city of Philadelphia and by certain community leaders there. They assert that in failing to support the Tocks Island Lake project, New Jersey and New York are forfeiting their diversion rights.

Indeed, there is even talk of Pennsylvania moving to reopen that decree to challenge the out-of-basin diversions if the Tocks Lake is deauthorized.

Mr. Chairman, this is a very disturbing development. I don't think either of the three States can afford to risk a return to the decades of bickering which preceded the court settlement. The city of Philadelphia, the largest community of the river, has an obvious and legitimate interest in preserving guaranteed flows in the Delaware.

New Jersey could, by developing the Confluence Reservoir on the Raritan River in Somerset County, add as much as 50 million gallons a day to the yield from the Round Valley/Spruce Run Reservoir system. The State might also get that much or more potential by

developing Passaic's proposed Ramapo Reservoir. Nevertheless, the hard fact is that the State has not carried out the detailed planning, much less made provision for the requisite financing to assure the Congress that there is a feasible alternative to the Tocks Lake for future water supply. I have yet to meet a person knowledgeable on the subject who doesn't believe that we will have to go to the Delaware to meet north Jersey's long-range water needs.

Each day's delay in implementing the Tocks Island Lake project makes a future water crisis more certain. All one need do is to review the New York Times editions of June and July 1965 to recapture the crisis atmosphere which existed in the tristate area. In certain respects we are in worse shape today to meet a prolonged drought than we were then.

We will hear today, I suppose, a lot of talk as to alternatives to the Tocks Island Lake project. Obviously, there are alternatives. That has never been the issue. The Madigan-Praeger study discussed alternatives at length. However, the authors concluded that the Tocks Lake project would be the most economical and that it would produce the most net benefits. The supporters of S. 3106 would have us believe that the recreation potential of the Delaware Water Gap National Recreation Area would somehow be enhanced if there is no Tocks Lake.

Mrs. Fenwick said people can sit around and churn butter or have someone else churn butter. I submit that people can fish and canoe and swim and so on.

That conclusion flies in the face of the view expressed to this committee by Mr. Russell Train on March 19, 1969. In a statement delivered on his behalf before the Subcommittee on Rivers and Harbors, Mr. Train, in his capacity as Under Secretary of the Interior, said of the Delaware Water Gap National Recreation Area—and I quote him—"No comparable, publicly owned, water-based recreation area exists anywhere in Northeastern United States. We know of no section of the country where the need for such a resource is greater."

Mr. Chairman, I think that statement makes the case very well for the Tocks Island Lake project. Now, I yield to no one in this Congress in my concern for the environment and my record proves it. My primary purpose in supporting and endorsing the Tocks project is the best interests of the residents of the Fourth Congressional District, those who dwell in the Delaware Valley, and, ultimately, all the people of New Jersey. I hope and trust, Mr. Chairman, that my concern is the concern of this subcommittee as well.

Mr. Chairman, I think that no one in this Congress representing an area on the Delaware is as familiar with that body of water as I. I was born in Trenton, N.J., on Riverside Ave., 100 yards from that river. I learned to swim there, to kayak there, to fish there, and I even confess that a time or two I helped to pollute it a little bit. I have taken a kayak from the Delaware water gate to Trenton. I have had command of a ship which I brought from the sea to Trenton. I have been up and down and around on that river. I have skated on it. I have walked across it when it was frozen. And I have seen it flood terribly.

Now, I will concede that in Delaware, for instance, the river is wide enough so that it doesn't present the flood problem that it does

in my area. But the salinity problem exists there. Philadelphia is in less danger of flood because of the channel and the width of the river there, but they need the water supply and they are going to need it desperately.

Northern New Jersey, the counties bordering this river, I represented three of the northernmost ones for three of my terms in Congress. They are essentially dairy farming areas. Dairy farms are disappearing and subdivisions are appearing, not only on the flood plain but all in that area, where the population growth is tremendous. This recreation area, this lake, would serve at least 20 million people within a 40-mile radius of it.

I feel very deeply that it should not be deauthorized, and I hope that the Senate bill 3106 will not be reported favorably. Thank you, sir.

Senator DOMENICI. Thank you very much, Congressman. Let me ask you, you have obviously been a legislator a lot longer than I and you have frequently had to pass judgment on projects not in your district or not in your State. Would you share your thoughts with me on how one who is a U.S. Senator looking into this area ought to evaluate the fact that the Governors of these respective States, at least three out of four, don't want the project to proceed? In light of your parochial interest—and it is that, and you expressed it in an excellent manner—and a parochial interest is germane, how do you look at the fact that the Governors of the States that are to be either benefited or impacted upon don't seem to agree that we should proceed?

Mr. THOMPSON. Well, Senator, Governors come and Governors go and the river stays.

There is a degree of ambivalence among some of those distinguished gentlemen. I happen to know all of them. I can't answer for them, nor can I understand. I can certainly understand Governor Shapp's position. I can't understand my friend Governor Carey's position, and I am not certain as to the position of my own Governor, but I believe that it is shifting around. So it would be two to two with some degree of ambivalence in the incumbent Governor of Delaware, who is being challenged by a distinguished colleague of mine who wants this deauthorized.

Senator DOMENICI. So you think there is more than semantics to the difference between an outright desire to deauthorize and the present language that says indefinitely postponed?

Mr. THOMPSON. Yes; I do indeed. I heard in the colloquy with Mrs. Fenwick that you referred to a project, presumably in your State. Greater harm can be done, Senator, by deauthorizing this than by delaying, although I am not an advocate of delay. And my interests aren't so narrow as to say, well, let's do this because we need jobs. The fact is that we do need jobs, but not for any frivolous purpose. This is not a frivolous purpose. For the life of me, I can't understand the continued and sometimes growing opposition to this project.

Now, in the years since 1962 there have been a number of Members of Congress from the Delaware Valley area come and go. The number who support the Tocks project have diminished over the years. The fact is, however, that the very same questions exist now that existed

at the time of the authorization. In a sense I am trying to save the souls of them.

Senator DOMENICI. Let me ask you this: You indicate that the alternatives that are regularly suggested, that the one objection you have to them, as far as I understand your testimony, is that the present project has a better cost-benefit ratio or is more economical. Now, that may not be the sole issue. Do you have any question that the flooding as it pertains to your district can be solved by an alternative route, even if it is more expensive?

Mr. THOMPSON. I am certain, Senator, that to a large degree alternatives could be developed. But they would be not as foolproof, and they would be infinitely more expensive.

Senator DOMENICI. I just want to indicate that the one statement you did make about the Madigan-Praeger report, where you said the multi-purpose nature and large scale of the Tocks project makes it more cost-effective than alternatives. I think you quoted that. However, they did in that same evaluation proceed to be critical of it, and I don't think you intended to leave that out. But let me read it, because the statement goes on to say:

> But the combination and concentration of purposes produced some highly adverse impacts on transportation, other public facilities and services, land uses and the environment in portions of the region.

Mr. THOMPSON. I did not omit that on purpose. Virtually any study, no matter which side it comes down on, is critical of one or another of the aspects. And even the strongest statements against it virtually all concede considerable merit, even though on balance they don't agree with it.

Senator DOMENICI. I thank you very much for your testimony and, of course, we will accept further evidence if you want to submit it, if you could do that within 2 weeks; we would like to close the record.

Mr. THOMPSON. Thank you very much.

Senator DOMENICI. Senator Case, we are delighted to have you with us today. We are sorry to have kept you waiting, but we didn't see you here sooner. We are delighted to have you at this point.

STATEMENT OF HON. CLIFFORD CASE, U.S. SENATOR FROM THE STATE OF NEW JERSEY

Senator CASE. I am delighted to be here, and you didn't keep me waiting. I was delayed beyond the appointed time for my appearance. I am sure if I had been here, I would have been in ahead of Mr. Thompson. But I am glad I wasn't, because I always enjoy listening to him. As I said to him just now, no one could have done a better job of advocating a bad cause than he has.

Our personal affection, mutually felt, is equal to the respect that each of us has for the other's ability and tremendous value as a public servant. That is mine for him. He will have to speak for himself with respect to me.

Mr. Chairman, I have a prepared statement. I would like to file it for the record, if I may. I don't want to take time of the committee unnecessarily in going over matters dealt with in the statement.

Senator DOMENICI. The entire statement will be made part of the record, Senator.

Senator CASE. Thank you very much. I think the question as to whether we are going to have this thing done is decided. The question now is just what we are going to do. As you pointed out in your discussion with Mr. Thompson, we are going to put it on the shelf without any change at all or we are going to make a definitive disposition of the area. I hope very much we do the latter.

This is a lovely part of the world. We don't have too many such things in the Northeast. It is unique. It would serve an enormous number of people as recreation area.

I think we ought to get about the business of developing its potential and protecting it at the same time as quickly as possible. I think our bill, which is very simple, does that job. As you know, of course, it deauthorizes the project as far as the dam and reservoir goes. It authorizes the transfer to the Department of the Interior of the lands held for that project for use in the recreation area, gives the powers in connection with that to the Secretary of the Interior for management and control. And it sets up a very good array of priorities in respect to the acquisition of land in connection with the further development and bringing into existence in its full fruition the recreation area.

As I say, I don't want to go into the matter, which Mr. Thompson had to deal with. He was carrying an awful load. He had to justify a position in opposition to seven of the eight Senators affected here, I think all of our colleagues in the House who have expressed themselves with any real interest, the Governors of three of the four States, and the decision of the Commission, which is in effect the Governors of the States in another form. The Commission is composed of one representative of the United States and the four Governors involved.

Senator DOMENICI. Senator, would you just share a few thoughts with me? Let me tell you what concerns me. And perhaps it shouldn't, because it is more your problem and the Senators and Governors involved.

I don't think the deauthorization will implement a plan to cover the flood problems. I don't know whether there is any concern about the water supply problem. Now, as I say, as a Senator from New Mexico, that is not my problem. We are running out of water, too, and we don't have any streams to dam. We might have to bring it all the way down from the Arkansas River. But in your case what would you say to us about the flood problem as it pertains to this?

Senator CASE. It is a most pertinent question and that kind of question reassures me about the effectiveness that Members of Congress show in dealing with the problems of the country.

Now, I have to answer, this doesn't set up the alternatives. It doesn't put them into action. That remains to be done. It will be the function of the four States, expressed through the Delaware River Basin Commission, which is their creature. I would say this, I am satisfied that deauthorization will in no way impede the carrying out of the alternatives, and it is entirely compatible with all reasonable alternatives that may be developed and will not in any way interfere with them being carried out.

I would like to make only this broad observation about the question of the need. We can always use the water. We would like to have flood

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control. Naturally, we want to have recreation facilities developed. There isn't any question that power doesn't exist here, as you know.

There is a possibility of using the water of the reservoir to be pumped up for a pump storage operation. That doesn't create power, it stores it. And it stores it right at the top of the Appalachian Trail where it comes into New Jersey.

But the more we look at this thing—and most of us favored it in the beginning, Senator—it became very clear that we could do a better job in flood control by flood plain management, that this particular dam wasn't going to take care of these specific kinds of damage and loss of life that occurred in the great flood some time back. Because this was up in Pennsylvania in the creeks, not in the reservoir area.

The use of the water for one of the purposes, cooling of powerplants, for instance, seems to be the main thing that is behind this. We take water away from the other purposes, and water so used would be gone, evaporated. That can't be used for water supply. It can't be used to control the flow of water downstream. These are great objectives, and any one of them perhaps could be satisfied, but not all.

I don't mean to get into arguing a decision which I think has been made. The decision has been made by the people most concerned, by the Commission, by the Governors, and by the great majority of us in Congress. It has been made on the merits of the project.

In answer to your question, this will not in any way impede, though it will not in itself move very far on the question of alternatives, except the alternative of recreation area. And it is a direct step in carrying out that particular objective, which I think is terribly important.

Senator DOMENICI. As I see it, Senator, there is recreation provided for under the project plan. And there is another kind of recreation that you are promoting. Certainly I don't want to be put in the position of deciding which type of recreation should be put in the area. There will be a substantial recreation area in those four States. You and others envision a kind of recreation area that is compatible with the preservation of what is already there, in opposition to a manmade lake. One must obviously opt in favor of those who represent the people there.

But I am wondering if we cannot be of some assistance in terms of positive rather than the negative. You say it will not impede the flood control problem. But I wonder if, considering the bureaucracy in the corps—and I do not use the word in its bad connotation—there is something we can do to let them proceed quickly with the flood control program and still get what you desire here.

As I say, that is not necessarily my concern at this point, but I know if we got off of this, as far as an alternate flood control, it would take the corps, if they were given the project, a lot of time to get back on the track. I am told as long as 2 or 3 years in some instances to get started with an alternate.

Senator CASE. The flooding that is the concern of all of us, and especially in respect to the area of Trenton, which Mr. Thompson represents, is below the dam. The dam is way up above.

Senator DOMENICI. I am saying take the dam out.

Senator CASE. I think the dam is out. I think you are quite right about that. The matter of developing a flood plain and whatnot is a long-term proposition. It has got to be a cooperative one between the

States and the Federal Government. I would hope the Corps of Engineers could be of assistance in this.

During this period in which this project has been under discussion, much has been learned about controlling floods and much is still to be learned. We are moving in a much sounder way than in the old days when the general remedy was to build a dam and levies and things of that kind to protect against a force of nature which cannot, really, be controlled. It has to be lived with in an intelligent way.

I am interested in helping to develop the alternatives, in putting them in effect. And I promise you we from that area will do our best and do our best to get our governments and our legislatures into action with respect to this matter so we can come before you as quickly as possible.

But I think it would be better not to wait for the development of those alternatives and mechanisms for putting them into place before taking this step that will permit us to go ahead and develop the recreation and acquisition the land.

Senator DOMENICI. I thank you very much.

Senator CASE. You have been most generous.

[Senator Case's statement follows:]

STATEMENT OF HON. CLIFFORD P. CASE, U.S. SENATOR FROM THE STATE OF NEW JERSEY

When Congress first authorized the Tocks Island Dam and Reservoir Project in October, 1962, it was seeking to meet flood control and water supply problems of the Delaware River Basin. Today, the Tocks Island Dam and Reservoir Project is a barrier to solution of those and other problems of the area.

The Tocks Island Project contemplates a 160-foot high dam that would create a 37-mile, 12,000-acre lake. In 1965, Congress authorized creation of a 60,000-acre recreation area, known as the Delaware Water Gap National Recreation Area, surrounding the reservoir.

Over the years, questions arose about the environmental impact of impounding the free flowing waters of the Delaware River and about the ability of the proposed dam and reservoir to meet their stated objectives.

As a result, Congress in 1974 authorized an impartial, comprehensive analysis of the dam and reservoir project, including a study of alternative means of meeting the objectives of the project.

The study was authorized because Congress recognized that a decision had to be made. There was an understanding that Congress would act—and act decisively—once the study had been completed and the governors of the four states bordering the Delaware River had make their recommendations based on the study.

That understanding was based on recognition that controversy over the project was preventing progress toward meeting the needs of the area, was tying up the Corps of Engineers to the detriment of other projects, and was consuming an undue amount of time and attention of members of Congress in light of the progress that was being made.

The study, which was completed a year ago, recognizes the pressing needs to be met in the Delaware River Basin, such as flood control, water supply, recreation, and power development. These needs are serious and increasing. The study left no doubt that early decisions are needed to meet these needs and it pointed out in specific terms technically viable alternatives that would avoid many of the problems associated with the proposed dam and reservoir.

While the study did not make any specific recommendations in regard to the project, it noted that the multi-purpose nature of the project resulted in "some highly adverse impacts on transportation, other facilities and services, land uses, and the environment of the region."

Based on these findings, the Delaware River Basin Commission, made up of a Federal representative and the governors of the four states bordering the Delaware River, recommended on July 31, 1975, that no further funds be appro-

priated by Congress for construction of the dam and reservoir. The Governors, however, also recommended that Congress continue to appropriate funds for land acquisition in the project area.

This is the situation that led me to introduce the bill (S. 3106) now before the subcommittee. Co-sponsored by seven of the eight Senators from the four states bordering the Delaware River, it will deauthorize the Tocks Island Dam and Reservoir Project and transfer all lands acquired for the project to the Department of Interior for administration as part of the Delaware Water Gap National Recreation Area.

It has been suggested that the dam and reservoir project should not be deauthorized, but merely held in abeyance until alternative water supply and flood control projects are planned in detail and ready to be implemented.

This suggestion reflects a lack of confidence in the alternatives suggested in the impartial study commissioned by the Congress to provide a factual basis for a final resolution of the Tocks Island question.

In discussing the alternatives to the dam reservoir, those who conducted the study acknowledged that institutional and political questions would have to be overcome in order to implement the alternatives.

In the case of flood control in particular, the study said a plan under which neither dams nor levees are built is desirable "but dependent upon local cooperation and the effective implementation of flood plain management techniques."

If this alternative is approached in a half-hearted manner, with the dam and reservoir held in reserve as a fall back position, failure to obtain the needed local cooperation will be a self-fulfilling prophecy.

Similarly, the needed investment in alternative water supply projects will be a poor risk if there remains a possibility that the Tocks Island Project still may be built in the future.

Moreover, holding the project in abeyance keeps land owners and local units of government in the area in an untenable position, prevents creation of jobs that are needed now, and denies to the public use of the area for recreational opportunities that are urgently needed.

There are many specific examples of how indecision about the Tocks Island Project will create additional problems for the area, rather than solve existing ones. I will cite only two.

While the study of the project was underway, Congress halted land acquisition in the dam and reservoir area. Understandably, Congress wanted to know the likely fate of the project before proceeding to buy more land in the area. But that decision resulted in hardship for many land owners.

There are some who had agreed to sell their land to the federal government for the project. They were unable to complete the transactions and are left under a cloud of uncertainty and, in some cases, with financial commitments to buy other land outside of the area.

Others are left with property they cannot sell because it is surrounded by federally owned land. This situation deprives them of many essential services, including adequate police protection against vandalism.

Still others, anticipating construction of the dam and reservoir, sold their property reluctantly and left the area. The recommendation against construction of the dam and reservoir leaves them wondering if they have been premature. Can they now regain the land on which they had hoped to spend their lives?

Indecision has created another set of problems for local units of government.

Mixed federal-private ownership of land in the area poses real law enforcement problems for local units of government. At the same time, extensive federal holdings has reduced ratables of local units of government.

If the Federal government increases its holdings, the National Park Service, given appropriate authorization, can expand recreational opportunities and derive increased revenues from user charges. At this point, neither New Jersey nor Pennsylvania has a state law providing for taxation of National Park Service special use permits. But the states can pass such laws and the revenues can be used to offset the loss of ratables to local units of government.

These are some of the problems that can best be met, I believe, by the provisions of S. 3106 or similar legislation. It is essential, I believe, that the legislation provide for deauthorization of the Tocks Island Project and transfer all lands acquired for that project to the Department of Interior for administration as part of the Delaware Water Gap National Recreation Area.

Land acquisition for the recreation area is more than 75 percent completed.

It is my hope that through this, or similar, legislation we can complete the land

acquisition and preserve for the nation an opportunity for recreation in an area of unusual beauty where the Delaware River has cut a notch through the 1,200-foot high Kittatinny Range.

At the same time, I hope we can bring about a realization that available alternatives must be developed and implemented by appropriate authorities to meet other needs of the area.

The time has come to recognize that the Tocks Island Project has been found unacceptable after careful and impartial sudy. The time has come to look ahead to acceptable alternatives that can meet the needs of the area.

The Army Corps of Engineers summed up my position very well when, in announcing its recommendation for deauthorization of the Tocks Island Project, it said:

"The recommendation for deauthorization will remove the controversy associated with the Tocks Island Project and permit the development of alternative plans by appropriate authorities to address the needs of the region."

Senator DOMENICI. Is Congressman Gilman still here?

We welcome you again before the subcommittee. We are delighted to have you here. I just would ask, in the interest of time, I have your statement here, and if you could summarize it, we will make it part of the record. We are going to have to be running in and out to vote and we have got a number of witnesses in addition. Whatever you could do to help us expedite it, I would appreciate it.

STATEMENT OF HON. BENJAMIN A. GILMAN, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF NEW YORK

Mr. GILMAN. I appreciate the time and I will try to be brief. I request that a copy of my statement be filed with the committee.

Senator DOMENICI. It will be.

Mr. GILMAN. I welcome this opportunity to appear before you in testifying with regard to the proposed Tocks Island project. The background of the project has certainly been adequately reviewed, and I will spare you that further repetition.

As a cosponsor of H.R. 12462 and having reviewed the study that was filed by the Madigan-Praeger Co., I would like to comment briefly on my reasons for supporting the legislation to deauthorize this project. During this hearing we should also be cognizant of some of the more important aspects of that study.

With regard to the Tocks Island Lake project, the study noted that:

While the Tocks Project, or alternatives to it will affect regional developments, more basic concerns such as the degree to which land use are actually implemented, and the prevalence of sound coordinated planning at Municipal as well as at higher levels, will have a much greater influence on the nature of the regional development and on the preservation of desirable conditions and lifestyles.

The multi-purpose and large-scale effect of the Tocks project are clearly cost-effective. But the combination and concentration of uses produces highly adverse impacts on transportation, land use and other facilities and services in portions of the region.

The Tocks Island project reaches into the New York area and touches the western portion of my district. It has an impact with regard to water supply and flood control and the power availability that would emanate from this project. For a while the people in my area were interested in this project. However, as they thoroughly explored the alternatives and recognized that construction of a 37-mile lake could produce some very severe effects on the environment,

there was a review and a reconsideration, the result of which local interest waned and then opposed the project. As you know, the vote of the Delaware River Basin Commission expressed the concern of the Governors of the States, and as you stated, they have a parochial interest. However, they are on the scene, and I think we should give a great deal of attention to their thoughts and their thinking since they express the needs of their region and how this best benefits their region.

In prior statements I have commented that the Tocks Island Lake project should not be permitted to proceed unless it is substantially proved to be the best possible alternative for meeting the needs of our region. The final report of this comprehensive study revealed the lack of such convincing proof and underscores the need for further exploring preferable alternatives to the construction of the Tocks Dam project.

There is no question that there is a need for water supply, for flood control, and for more adequate power for the region. The alternatives offer to meet that need, and they offer it in a manner that is practical and not beyond the cost-effectiveness of the proposed project. I leave the method of triggering those alternatives to the discretion of the committees that are reviewing the project. I think appropriate legislation can be developed for moving forward with the alternatives.

We are not saying that the planning for alternative uses should be stopped. I certainly advocate utilizing the land acquired for recreational purposes, as do most of us. However, I think we should examine the alternatives. There are some reasonable alternatives that have been suggested in this study.

The study acknowledges that the proposed Tocks Lake would be unsound environmentally, and I quote from the study:

> Eutrophication, to the extent predicted will have a detrimental effect upon the use of the lake for recreational purposes. Some swimmers and boaters will find it uninviting, though conditions will not be appreciably different from those at some other lakes in the area.
>
> Drawdown conditions due to the project will have a detrimental effect on recreational use of the lake in late summer—August and September—and will also decrease the attractiveness of the lake at some other times.

The limited electric power resources emanating from the Tocks project is also pointed out by the study summary.

> It is estimated that additional electric peaking power substantially in excess of the proposed Tocks project will be required under all the conditions examined in the electric power service area within the forecast period.

If we are planning to meet all the needs of the area, we will not be able to meet them from this proposal.

In addition, anticipated economic benefits are offset by the burdens of the project's impact on local government as stressed in the following portion of the summary:

> * * * The additional impacts caused by the Tocks project or alternatives to it will place additional burdens upon the public services, resources, and general fabric of nearby municipalities which will be beyond their capabilities to accommodate or manage.

Again stressing the need that some Federal action and funding would be necessary to help alleviate these burdens.

Following the publication of this study, the opinion in many quarters was to intensify congressional efforts to deauthorize the Tocks Island Lake project. In my opinion it would be irresponsible for Congress to authorize such a costly project as Tocks unless it is convincingly clear that the project would be the most advantageous of all possible considerations. I am appearing before you today to reaffirm my earlier convictions that the Tocks project would result in deleterious consequences. Accordingly, I support the measure terminating authorization for the Tocks Island Lake project and respectfully request that the committee act accordingly.

Senator DOMENICI. Congressman, I assume in supporting the deauthorization that you also support the acquisition of land as indicated in the bill that we are talking about and the turning the project over to the National Parks Serivce?

Mr. GILMAN. I think the Senate proposal is certainly a worthwhile investment in the recreational area for a fast-growing portion of the country. I think that the entire area welcomes that kind of an investment, and I think the National Parks Service is the proper Agency to administer it.

Senator DOMENICI. We will make your entire statement a part of the record, and if you likewise have anything in addition you would like to submit, we will keep the record open 2 weeks. We appreciate your patience. Thank you again for appearing before the committee.

Mr. GILMAN. Thank you. Senator.

[Congressman Gilman's statement follows:]

STATEMENT OF

BENJAMIN A. GILMAN

26th CONGRESSIONAL DISTRICT, NEW YORK

BEFORE

SENATE SUBCOMMITTEE ON WATER RESOURCES

ON

S. 3106

July 24, 1970

Mr. Chairman and distinguished Members, I welcome this opportunity to appear before the Senate Subcommittee on Water Resources to comment on the proposed Tocks Island Reservoir project. I wholeheartedly agree with the vote by the Delaware River Basin Commission Governors against the Tocks project and with the decision by the Army Corps of Engineers to ask Congress to deauthorize the project. I strongly urge passage of S.3106, which would terminate the authorization for the Tocks Island Reservoir project.

The proposed Tocks Island project adjoins and affects a portion of my Congressional District after reviewing the Urs/Madigan Praeger study, I co-sponsored H.R. 12462 which is a companion bill to S. 3106 calling for the termination of the authorization for the Tocks Island Reservoir project.

I. BACKGROUND

In the wake of severe flooding in the Delaware River Basin following two tropical storms in the mid 1950's, Congress authorized the Army Corps of Engineers to undertake a comprehensive study of the Basin's water resources. This study, completed in 1960, recommended construction of six new dams. The Tocks Island Project, the largest of these, was authorized by Congress in the Flood Control Act of 1962, and consisted of constructing both an earth-fill dam on the main stem of the Delaware River and an impounded reservoir reaching thirty-seven miles upstream to Mantananas, Pennsylvania and Port Jervis, New York, which is located in my Congressional District. This impoundment was to provide storage for water supply, recreation, hydroelectric power and additional

capacity for flood control.

Congress subsequently authorized the Delaware water gap National Recreation area to be developed in conjunction with the reservoir. The original authorization was expanded to permit construction of a pumping storage facility to pump Tocks water to a small reservoir on Kittanttinny Ridge, where it would be dropped back downhill through turbines to produce extra peek load energy.

Land acquisition funds were first appropriated in 1960, through 1975. Approximately sixty-seven percent of the project's land had been acquired.

In 1974, response to the many concerns generated by the environmental issues and the impact of the project upon its surrounding area, Congress authorized the Army Engineers to prepare a comprehensive and impartial review of the project and its alternatives. URS/Madigan-Praeger, Inc. was commissioned to prepare the $1.5 Million study.

II. The Urs/Madigan-Praeger Inc Study

Let us consider the key findings of that report and how they bear upon the future of the Tocks Island project.

It is evident from that comprehensive study, that the Tocks Island Lake Project cannot be justified as the best possible alternative to meet the present needs of the basin area. In comparing the possible alternatives, the Tocks Island Lake project is advantageous only as to relative costs and cost benefits; the study admitting that even those figures are flexible and open to reevaluation. However, other considerations are equally or more important, and in these areas the Tocks Island Lake Project produces more disadvantages, as noted in the introduction of the study's draft Summary:

> "While the Tocks Project, or alternatives to it will affect regional developments, more basic concerns such as the degree to which land use are actually implemented, and the prevalence of sound coordinated planning at Municipal as well

as at higher levels, will have a much greater influence on the nature of the regional development and on the preservation of desirable conditions and lifestyles.

"The multi-purpose and large scale effect of the Tocks project are clearly cost effective But the combination and concentration of uses produces highly adverse impacts on transportation, land use, and other facilities and services in portions of the region."

In prior statements, I have commented that the Tocks Island Lake project should not be permitted to proceed unless it is substantially proved to be the best possible alternative for meeting the needs of our region. The final report of this comprehensive study revealed the lack of such convincing proof and underscores the need for further exploring preferable alternatives to the construction of the Tocks Dam Project.

This comprehensive study also revealed that for the Orange County, New York Region, there would be only minimal benefits to be derived from the construction of a Tocks Dam. The water needs of southeastern New York could not be met by any water reserviors from this project according to the summary of the study. (p.8).

The study summary further acknowledges that the proposed Tocks Lake will be Eutrophic -- producing concentrations of algae blooms -- thus limiting the lake's recreational value (p.34):

"Euthophication, to the extent predicted will have a detrimental effect upon the use OF THE LAKE FOR RECREATIONAL PURPOSES Some swimmers and boaters will find it uninviting, though conditions will not be appreciably differend from those at some other lakes in the area."

Moverover, the restricted use of the lake is noted on page 43 of the Summary:

> "Drawdown conditions due to the project will have a detrimental effect on recreational use of the lake in late summer -- August and September-- and will also decrease the attractiveness of the lake at some other times."

The limited electric power resources emating from the Tocks Project is also pointed out by the study summary (p.16):

> "...It is estimated that additional electric peaking power substantially in excess of the proposed Tocks Project will be required under all the conditions examined in the electric power service area within the forcast period."

In addition, anticipated economic benefits are offset by the burdens of the projects impact on local Government as stressed in the following portion of the summary (p. 48):

> "...The additional impacts caused by the Tocks Project or alternatives to it will place additional burdens upon the public services, resources and general fabric of nearby municipalities which will be beyond their capabilities to accomodate or manage."

III The Move to Terminate the Tocks Island Lake Project

Following the publication of the Urs/Madigan-Praeger,Inc. study, the opinion in many quarters was to intensify Congressional efforts to deauthorize the Tocks Island Lake Project, in my opinion it would be irresponsible for Congress to authorize such a costly substantial project as Tocks unless it is convincingly clear that the project is the most advantageous of all possible considerations. I am appearing before you today to reaffirm my earlier convictions that the Tocks Project would result in deleterious consequences. Accordingly, I support the measure terminating authorization for the

Tocks Island Lake project.

In August 1975, Brigd. General James L. Kelly, the North Atlantic Division Chief of the Army Corps of Engineers, recommended that the Tocks Island Dam project be deauthorized by Congress. General Kelly based his recommendation upon the fact that the Delaware River Basin Commision Governors--of the New York, New Jersey, Pennsylvania, and Delaware--voted 3 to 1 against the Tocks project. While Kelly supported construction, he indicated that he felt the Governors of the affected states could better evaluate the views of their constituents. In light of the lack of state support, he urged no further delay on deauthorizing the project so that alternative plans to meet the pressing needs of the region might be developed.

I embraced a similar position last year and continue to be an advocate of deauthorization. I previously indicated that the alternatives to the building of a Tocks Dam, including the use of the Delaware tributaries as a water supply source, would provide equal or greater benefits to the region in water quality, power supply wildlife and fish preservation, public accentance, open space preservation, effect on current life styles, character, and esthetic preservation, adequacy of mass transportation and roads, and the amoung of flood damageable property that will be protected.

Moreover, H.R. 12462 and S. 3106 call for "all real property acquired by the Secretary of the Army pursuant to the authorization of the Tocks Island Reservoir project to be transferred to the Secretary of the Interior and to be administered as part of the Delaware Water Gap Recreation Area..."

This land can and should play a major role in meeting the recreational and water needs of our region. It should be developed as a multi-purpose parkland, coupled with more sensible utilizaiton of the upriver reservoirs to insure an adequate flow on the river. These vital water resources must be managed not only for the benefit of the metropolitan

regions but for the entire Delaware River water basin.

Mr. Chairman, it is my opinion that the passage of S. 3106 and its companion bill, H.R. 12462, will do much to extricate us from the long-standing confusion and tangle of wasted funds that has accompanied the Tocks Island Reservoir project. It is my sincere hope that this Subcommittee will act favorably on S. 3106 so that there may be serious reconsideration of those alternatives that could serve the affected area and its residents better than the Tocks Island Reservoir project.

Senator DOMENICI. Is Congressman Andrew Maguire here?
General Graves, we are ready for your testimony.

STATEMENT OF MAJ. GEN. ERNEST GRAVES, DIRECTOR OF CIVIL WORKS, U.S. ARMY CORPS OF ENGINEERS

General GRAVES. Thank you, Mr. Chairman.

S. 3106 would terminate the authorization for the Tocks Island Reservoir project as part of the Delaware River Basin project and would transfer all real property acquired by the Secretary of the Army, under the project authority to the Secretary of the Interior, to be administered as part of the Delaware Water Gap National Recreation Area. In addition, the bill authorizes the transfer of all authority vested in the Secretary of the Army for the acquisition of lands for the Delaware Water Gap National Recreation Area and for the Tocks Island Reservoir project to the Secretary of the Interior. The bill further provides that any unexpended appropriations made for the purposes of the Tocks Island project and the Delaware Water Gap National Recreation Area which are controlled by the Secretary of the Army be transferred to the Secretary of the Interior. The bill also sets priorities for the Secretary of the Interior in administering the authorities transferred to him by the bill.

S. 3106 also directs the Secretary of the Interior as part of the national recreation area to relocate U.S. Highway 209 to improve its safety and to reduce the environmental impact on the national recreation area in the same manner as it was to be relocated by the Secretary of the Army if the Tocks Island project were to be constructed as authorized by the Congress. The bill would authorize to be appropriated such sums as are necessary to relocate the road.

We note that the intent of the bill is to expand the Delaware Water Gap National Recreation Area and to provide for the transfer from the Secretary of the Army to the Secretary of the Interior of lands already acquired for the reservoir project for inclusion in the national recreation area as well as transfer of the authority of the Secretary of the Army to continue to acquire land for both the reservoir project and the expanded national recreational area. Since section 1 of the bill would terminate the reservoir project and, with it, the authority of the Secretary of the Army to continue to acquire reservoir project land not yet acquired, we recommend that the bill be corrected to authorize the Secretary of the Interior to acquire remaining reservoir lands and properly accomplish the bill's intent.

The position of the Army with regard to S. 3106 is that the Tocks Island Lake project as authorized by Public Law 87–874, approved October 23, 1962, be deauthorized and that all land acquired, including real estate and legal obligations, by the Department of the Army pursuant to the project authority be transferred to the Department of the Interior on the assumption that the Congress authorizes expansion of the Delaware Water Gap National Recreation Area. The Department of the Army also concurs in the transfer of land acquisition responsibilities for the Delaware Water Gap National Recreation Area from the Secretary of the Army to the Secretary of the Interior as intended by the bill.

Section 4 of S. 3106 would transfer the responsibility for relocating Route 209 to the Department of the Interior. It is the position of the administration and the Department of the Army that this responsibility should remain with the Corps of Engineers. Accordingly, we recommend that the bill be amended to reflect this position.

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

Senator DOMENICI. Let me see if I can get a few things cleared up in my mind. The bill we are talking about, General, would, as I read it here, terminate the authorization for the Tocks Island Reservoir project, and then the words "as part of the Delaware River basin project." Now, does that mean that there remains a Delaware River basin project?

General GRAVES. Mr. Chairman, there is a basin plan, and the way in which the project is put together makes the Tocks Island Dam a feature of this plan. So it is worded this way to make clear that it was authorized as part of a larger plan.

Senator DOMENICI. Does the Delaware River basin plan contemplate flood control outside of that which was to be provided by the dam?

General GRAVES. There were alternatives considered, Mr. Chairman, but this was the key feature. And with the removal of this project, it really is necessary to go fairly far back toward first base in order to put together a plan that would be workable.

Senator DOMENICI. So that as far as the Corps is concerned, the flood prevention contemplated by this project, if terminated by the project termination, the Corps would not be involved in the ongoing plan for flood control. Is that correct?

General GRAVES. That is correct, Mr. Chairman. We think that in view of the history of this project, it would be desirable for there to be specific authorization for further involvement.

Senator DOMENICI. As I was discussing it with Senator Case, you concur that it is up to somebody to come up with some direct authority, either begin studying or to proceed in some way in terms of nonstructural flood control for the region?

General GRAVES. The position of the Corps is that if the Congress authorizes us to study other alternatives, we would be most willing to undertake such a study. But we believe we should have some such specific guidance from Congress rather than to proceed under any other existing authority. The controversy over this project has led to a situation where, in the absence of some such specific direction, the involvement of the Corps might be questioned. We have no problem with being involved, but we believe the background is such that we should have specific direction to that end.

Senator DOMENICI. General, do you know how much money the U.S. Government has spent to this point on this project?

General GRAVES. As I remember, through fiscal year 1975 it was $59,000,000. There have been some minor additional expenditures. The approximate amount is $60 million. I can provide a precise number to date for the record.

Senator DOMENICI. Would you, please? General, not by way of criticism but by way of gathering information as to how much time the Corps spends on a project like this, because of what has trans-

pired, could you give us for the record a reasonable estimate of the hours and time spent administratively on this project by the Corps?

General GRAVES. Yes, I would, Mr. Chairman. I would like to provide that for the record.

[General Graves supplied the following information:]

TOCKS ISLAND LAKE PROJECT COSTS THROUGH 30 JUNE 1976

Expenditures.—$63.5 million (including $1.5 million for special study requested by Appropriations Committees).

Manpower.—553 man-years (including 326 in-house and 227 out-of-house).

Senator DOMENICI. We'll be delighted to have that. Now, with reference to your statement where you refer to a continuation of the acquisition of land, is there a difference or could there be a difference in the amount of land needed and the kind of taking—taking in the legal sense—if we proceed to the national parks concept versus what we had expected to use it for under the project plan?

General GRAVES. It is my understanding, Mr. Chairman, that the National Park Service would recommend the taking of all the land that was contemplated for the reservoir. They are in the midst now of planning for the national recreation area, and I would like to defer to the witness from the Department of the Interior to amplify this situation with respect to the size of the area.

Senator DOMENICI. However, to the extent that you are recommending deauthorization, you are also recommending acquisition consistent with a new plan, whatever that is?

General GRAVES. Yes, sir. The principal problem is that there is a substantial amount of real estate acquisition which is in transition. Our estimate is that the cost of land acquisition already initiated but not finally concluded, plus administration of the land and relocation payments and the like over the next 3 years to clean up the Corps' involvement, would be $8 million.

Now, the proposal is that all of this be taken over by the Department of the Interior. But the problem is incomplete real estate acquisition, which should be cleaned up, primarily from the standpoint of the owners involved. They are put in a very bad position where we have started proceedings but are unable to conclude them at the present time.

Senator DOMENICI. Now, General, with reference to the relocation of Route 209, I am not going to ask you about whether we should or not, but why do you recommend that the Corps of Engineers take the lead in that, while you are testifying that the major Federal development in this area should be handled by the Department of the Interior?

General GRAVES. I think this is a question of getting on with the job. If you believe that the highway should be relocated on the grounds that there is a congestion problem and, because the road runs through the recreation area, the Park Service desires to have the road relocated outside the recreation area, then the most expeditious way would be to allow the corps to proceed. In view of the planning we have already done on the highway relocation, the progress we have made on the environmental impact statement, and the fact that funds have already been appropriated by Congress, we are in a position to proceed. That is the primary reason that the administra-

tion is recommending the corps proceed with the road. Transfer of responsibility is likely to create a gap and interrupt the prosecution of the work.

Senator DOMENICI. I don't mean to be argumentative, and obviously 209 itself is going to be a matter of some controversy as you suspect. But I wonder is there not the probability that with the contemplated use that indeed there ought to be another look at the relocation of 209 or what was the primary reason for location and use before versus now?

General GRAVES. Absolutely, sir. But let me say this: The alinement covered by the bill is an alinement based on the reservoir. The Park Service has indicated that, at this point in time, the plans for the recreation area contemplate a boundary essentially riverward of the relocated route. In other words, their studies to date on the boundary of the recreation area would be that the boundary should be approximately where the road is. So this present relocation plan would put the highway just outside the boundary of the recreation area, as now contemplated, and would remove traffic congestion from the recreation area.

Now, if the location of the boundary of the recreation area is a matter of issue—and, of course, this involves the effect of relocation of the road on property owners—and if the Congress judges that this entire matter should be restudied, then that is another issue.

What it amounts to is that the Park Service is in favor of this alinement as a boundary to the recreation area, as they can elaborate, and they have so indicated to the corps. So the basis of the administration's position is that there should not be a delay because that aspect is fairly well agreed on.

Senator DOMENICI. So the corps has recommended to the Office of Management and Budget that it proceed with the relocation of Route 209?

General GRAVES. The Secretary of the Army recommended that, Mr. Chairman.

Senator DOMENICI. And at this point is there an anticipated date of construction?

General GRAVES. We would not be in a position to begin construction before 1978 because we have some additional planning and additional real estate acquisition to do on the road before actual construction could begin. It may be that a start would be practical at the very end of 1977.

Senator DOMENICI. What would be the source of funding for the construction of the road, and what kind of road would it be if the recommendation you have made here today is followed?

General GRAVES. Appropriations in the Public Works Appropriation Act have provided funds for planning to date. Appropriations could be used for planning and real estate acquisition in 1977.

If authority were left with the corps, the normal process would be for those appropriations to continue in the account of the Corps of Engineers. Of course, Congress could provide for some other source of appropriations if it wished.

Senator DOMENICI. And if we proceed as we are now moving, with the corps doing the work, doing the relocation and using the money in its normal manner, what kind of road would this be?

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General GRAVES. The plan is for a two-lane paved road on a four-lane alinement. The alinement would be selected with the ultimate aim of a four-lane road. But the initial road would be simply two lanes.

Senator DOMENICI. Would it be a State road, Federal road? What will it be when you finish?

General GRAVES. It would be a relocated U.S. highway, sir, Highway 209.

Senator DOMENICI. Mr. Chairman, did you have any questions of the general?

Senator RANDOLPH. Not right at the moment.

Senator DOMENICI. Thank you very much, General. I would appreciate those two figures that I asked for, administrative time in terms of dollars, and if you could put it in hours, we would like to have that, too.

General GRAVES. Yes, sir.

Senator RANDOLPH. Before you leave, General, I have been listening to your testimony and would like to ask you, by what authority does the Corps of Engineers construct a road?

General GRAVES. We would constuct a road only by the authority granted us by Congress. If there were an authorized project and the road were in the project document, we would be constructing it under that authority. In the absence of an authorized project, there would have to be some specific authority from the Congress for the construction of the road.

Senator RANDOLPH. Thank you. A further question: If there is a deauthorization of the project, are you recommending that someone construct the road?

General GRAVES. The National Park Service feels that as a part of its plan for the recreation area, the road should be relocated out of the recreation area lands. And it is their view that a desirable location for the road would be this new alinement, the one which the corps selected in conjunction with the reservoir project. They feel that this would create a natural boundary, if you will, to the recreation area. That is the basis for the Department of the Interior having proposed this relocation.

Senator RANDOLPH. A further inquiry on this line, General; that would be a matter, then, for jurisdiction of the Interior and Insular Affairs Committee and not this committee. Am I correct?

General GRAVES. Mr. Chairman, it certainly could be done in that manner.

Senator RANDOLPH. Well, shouldn't it be done in that manner?

General GRAVES. I wouldn't presume to question the committee's judgment here. The reason for proposing that it be dealt with here was the desire not to interrupt the road because of the problems associated with the project.

To explain this a little further, there has been a view that were it not for the Tocks Island project, the Commonwealth of Pennsylvania and interests in this area would in fact have sought to alleviate the conditions on Highway 209 through other means. However, because of the Tocks Island project, they anticipated the problems associated with 209 would be taken care of in the course of carrying out the Tocks Island project.

Now then, with the Tocks Island project deauthorized, rather than go back to the beginning on the road, the feeling has been that we should carry through because of the congestion on this road and the problems associated with it.

Congress, I believe, would be the best one to decide how to deal with this problem.

Senator RANDOLPH. Then, of natural sequence in what you are saying, General, the regular Federal highway funds would become available. Is that what you are saying?

General GRAVES. I think the concern of the people directly involved is that there not be a long delay in view of the work that has already begun. If the Congress wishes to fund this from some other source, the Corps of Engineers certainly has no problem with that. The administration's position is based on the view that something should be done about the road, rather than having a long delay, because of the work that has already been started. And I think that also ties in with the Department of the Interior's view, that they would like to see the relocation of the road proceed from the standpoint of the recreation area for which the Department of the Interior is responsible.

There are other options here. The corps can build this road as the agent of anybody with any source of funds. I think the desire to keep the corps involved is because of the fact that we are into the project. We have done a lot of planning. We are on the site with our real estate acquisition people, and if we continue, there wouldn't be an interruption of the work.

The proposal of the administration is that we be authorized and funded to do it. An option that is available is for somebody else to be authorized and we could do it as the agent of those other people. That would continue our involvement, if that was desired.

Senator RANDOLPH. Well as you know, General, let's say that this road is badly needed; let's say there are congestions that are occurring—the priority of roads, does not originate in Washington, D.C., that is a matter within the States. Am I correct?

General GRAVES. Yes, sir.

Senator RANDOLPH. So the problems of that road is then a matter of priorities to be determined within the Commonwealth of Pennsylvania in this instance. A determination as to what will be done through the regular Federal aid highway moneys that are allocated to the Commonwealth of Pennsylvania or to bring it back through the Department of the Interior. Is that correct?

General GRAVES. I believe it is, yes, sir.

Senator RANDOLPH. I wondered why you were attempting to draw in the Corps of Engineers in connection with the construction of this road if the project is deauthorized. I am only asking if you did that. It seemed to me you were indicating that the corps would build this road. You understand that if the project is deauthorized the Federal aid highway system would apply just as it applies to the roads everywhere that are under the Federal aid highway system.

General GRAVES. Mr. Chairman, what I was saying was as follows: That the corps did not originally propose that it would continue this roadway. But within the administration the conclusion was reached that the road should be relocated. This was related to the plans for the

national recreation area, and that the Corps of Engineers was in the best position to go ahead and get the work done. That is the reason why the administration recommends that it be authorized to do this.

Senator RANDOLPH. That was a part of the Tocks Island program, the overall program?

General GRAVES. Right, sir.

Senator RANDOLPH. Is that correct?

General GRAVES. That is correct.

Senator RANDOLPH. Thank you very much.

Senator DOMENICI. General, if you have already answered this question, I apologize. I was speaking to the staff. Were you asked by Chairman Randolph how much work the corps has done on the road to this point?

General GRAVES. No; that was not his question.

Senator DOMENICI. Would you tell us that?

General GRAVES. We have made a study of alinements and selected an alinement. We have done some work preparatory to acquiring land.

Senator DOMENICI. What does that mean?

General GRAVES. That would be a study of the real estate. We haven't actually gone out and bought land, but we have what we call a real estate planning report which we have worked on. We have prepared plans and specifications for the road, an initial piece of the road. But we still have ahead of us, if we were to do the job, the acquisition of land, and we have not done any work on letting a contract for the construction of the road.

Senator DOMENICI. That is why I asked you what kind of road it is going to be. It appears to me—and again, I am really not trying to be critical; I am trying to get an understanding of where we are—that if you get out of the business of building this dam and project—we have got a road that exists, and there is a contention that we need a new road to fill the needs that exist there now and are using a road that is inadequate. I truly don't understand why the Corps of Engineers would even want to hold onto this kind of project unless somebody knows some way to get money to it that might otherwise be more difficult. I think that is a concern of ours.

General GRAVES. I haven't looked behind the motives of people, but I think that there may be many different views about whether or not this road should be built. I am aware that the Park Service is anxious to have the road built as part of its plan for the recreation area. And, as I say, the Secretary of the Army and the administration concluded that it would be desirable to get on with the building of the road. And it is that conclusion which led to the recommendation of the administration that the corps be authorized to do it.

I haven't been involved in discussions about the funding. I know how the corps would be funded if we did it, but I haven't been involved in discussions of alternative ways of funding it, so I can't speak to that aspect.

Senator RANDOLPH. Mr. Chairman, I don't want to pursue the matter except I think General Graves knows full well that the road moved into the picture because, with the impoundment of water, the road would be inundated. That was the reason the corps was identified with the road. Is that correct?

General GRAVES. That is correct, Mr. Chairman.

Senator RANDOLPH. If the project is deauthorized, the corps removes itself; does it not?

General GRAVES. We would normally do that, Mr. Chairman.

Senator DOMENICI. Mr. Chairman, for the record, it appears to me that we have requested that the money be appropriated, and it is being appropriated for the road. But it is on the premise that this was part of the project. It was incumbent upon the Federal Government, through the corps, the chief operative for the Federal Government, to do this because we were going to do a lot of other things. It seems to me that the issue changes drastically and becomes one of priority among a lot of roads of a similar type with a different principal operative.

I am not today implying that the general is wrong and that our idea is right. Certainly it is strange to change everything about a project but yet proceed with one portion of it that is rather substantial in nature, perhaps to the detriment of many recreation roads rather than waiting around for money.

I think that is what the chairman is concerned about in his questions, and I thank you for clarifying some of mine. I have no further questions. We appreciate your testimony and thank you for your patience this morning.

Is Mr. Everhardt, the Director of National Park Service, here?

STATEMENT OF GARY EVERHARDT, DIRECTOR, NATIONAL PARK SERVICE, U.S. DEPARTMENT OF THE INTERIOR

Mr. EVERHARDT. I appreciate very much this opportunity to present to your committee the views of the National Park Service on this legislation.

The National Park Service strongly supports the deauthorization of the Tocks Island Reservoir project. We do, however, have some suggested revisions to S. 3106 which I will cover later in my prepared statement.

There is no need for me to review the history of the Tocks Island Reservoir project. Let it suffice to say that the area has been looked at by the National Park Service as a major recreational resource for the past 20 years. The National Park Service became officially involved with the Delaware Water Gap National Recreation Area in 1965 when Congress authorized its establishment. During the ensuing years the Interior Department has consistently maintained that the national recreation area is self-sufficient and can go forward apart from the reservoir project.

Although current National Park Service management activities include an outstanding environmental education program, the interpretive resource protection and management and visitor use programs cannot feasibly be expanded until the national recreation area is more fully developed. The multiple ownership and jurisdiction of lands within the authorized national recreation area boundary lead to problems such as uncontrolled access into and uncontrolled traffic within the recreation area, public trespass on private lands within the boundary, unauthorized usage such as camping, with ensuing problems relating to the lack of sanitary facilities and uncoordinated wildlife habitat management.

The present lack of proper orientation facilities contributes to misuse and overuse of some resources and existing facilities and underutilization of others. The lack of interpretation contributes to a loss of visitor understanding and appreciation of the area's natural cultural and historical resources.

The 1965 act authorized a national recreation area surrounding the reservoir which the dam would have created. When it became apparent to us that the dam might not be built, we redirected our planning efforts toward establishing the national recreation area around a free flowing river. The result of these efforts was an environmental assessment for a general mangement plan which was released for public comment in June of this year. The environmental assessment included four alternative proposals for the area if the dam project is deauthorized.

The present time schedule calls for public comments to be submitted to the department by August 31. Our analysis of the public comments should be complete by September 30. Changes would then be made and a selection of alternatives made and documented by the region by October 30. The alternatives outlined in the environmental assessment are not final, and the end result could be either a combination of the alternatives or a completely new plan. This depends primarily upon the public comments we receive. Once all of this information has been assembled, we will begin to develop an environmental impact statement and a general management plan for the recreation area. These are targeted for completion by May 30, 1977.

The four alternative actions outlined in the environmental assessment range from no action contemplated in alternative one, to the preservation and interpretation of the traditional rural environment in the Delaware River Valley Rural Americana as proposed in alternative four. Alternative three explores the standard national recreation area format, while under the second alternative both the dam and the national recreation area would be deauthorized.

As I said earlier, Mr. Chairman, none of these proposals is set in concrete. We are flexible and open to comments and suggestions through our involvement process. Some of the groups which will be testifying later have already developed and submitted their own proposals for the Park Service.

Land acquisition, although done by the Corps of Engineers, has been funded separately for the dam project and the national recreation area. If this legislation is passed, we will need an increase in the national recreation area acquisition ceiling of $27.7 million to complete acquisition of the lands which the corps has been purchasing for the reservoir project.

Land acquisition for the national recreation area is continuing. As of December 31, 1975, all but 6,155 acres of private land have been acquired, and the funds to purchase the remaining acres have been either appropriated or authorized. Of the land that was to be acquired by the corps for the Tocks Island Reservoir project, 5,750 acres remain to be acquired. And to accomplish this, the acquisition ceiling contained in the 1965 act will have to be raised by $27.7 million. This cost may be reduced somewhat if we are able to exchange some of the previously acquired lands lying outside the national recreation boundary for some of the unacquired lands within.

While we support the deauthorization of the Tocks Island Reservoir project, we have one primary objection and several secondary objections with S. 3106 as it is now written.

First of all, we question the desirability of transferring to the Department of the Interior the responsibility for the relocation of U.S. Highway 209 within the national recreation area. The relocation of the highway is essential to the operation of the recreation area, and all concerned parties support its relocation for recreation as well as safety purposes.

However, we believe that the Army Corps of Engineers is better suited to accomplish this task. The National Park Service is not primarily concerned with major highway construction and engineering. The corps has far more experience and expertise related to road relocation. This is of particular significance where relocation of a major artery such as Highway 209 is concerned. The corps has current authority and some funding to undertake the task and has planned to do it in connection with the building of the dam. It can commence and complete the relocation task much sooner than the National Park Service. Considerations of continuity, efficiency and expertise require that authority for this purpose remain in the Corps of Engineers.

By appropriating $4.6 million for the Tocks Island Reservoir project in fiscal year 1976, we believe that the Congress intended that the corps was to proceed with the planning, acquisition of right-of-way and construction of Highway 209. We also understand that with respect to this matter, the Secretary of the Army agrees that it was the intent of Congress that it proceed with the relocation of Highway 209 on an alinement which was selected during the design study stage of the Tocks Island Reservoir project and which has always been contemplated as ideal for our exterior boundary of the national recreation area. We hope the committee will modify the legislation to reflect this agreement.

In addition, Mr. Chairman, we have several other problems with S. 3105 which we would like to bring to the committee's attention. While none of our objections to S. 3106 would change our support for deauthorization of the dam, we would appreciate the committee taking them into consideration.

Section 2(b) of the bill provides that all authority of the Secretary of the Army, pursuant so the act of September 1965, and the authorization of the Tocks Island Reservoir project and any unexpended appropriations made for the purpose of such acts be transferred to the Secretary of the Interior. This should be revised.

As previously discussed, the authority and funds to complete the design, purchase the right-of-way and construct the relocated U.S. Highway 209 should remain with the Secretary of the Army, although we would be willing to fund the acquisition of the remaining 5,750 acres of Tocks Island Reservoir land if the $27.7 million in authorization is approved.

However, inasmuch as the corps has completed a substantial portion of the land acquisition already, for both the Tocks Island and Delaware Water Gap projects in the interests of efficiency and continuity, we would probably contract with the corps for completion of the land acquisition in the event the authority was transferred to the National Park Service.

Senator DOMENICI. Mr. Everhardt, would you hold for a minute and let me ask you what do you mean, "We would be willing to fund acquisition"? Do you mean if we give you the money, you will do it?

Mr. EVERHARDT. Yes, sir.

Senator DOMENICI. That doesn't say you want to do it or it is a high priority. You are just saying you have no objection to proceeding to acquiring it.

Mr. EVERHARDT. We have no objection to the statutory responsibility remaining with the Corps. The National Park Service does have a severe problem with human resources in our land acquisition program today, the corps is on site there and they have done a tremendous job in land acquisition already for the Delaware River Gap as well as the Tocks Island project. They are known in the community. They have a good rapport with the landowners, and we would like to see that statutory responsibility remain with them.

However, if the committee did see it necessary to give that authorization of funds to the National Park Service, we would certainly be willing to abide by the committee's action. However, we would probably continue to try to contract with the corps to carry out the land acquisition program there.

Senator DOMENICI. Let me go back in your statement a bit. I know you are going to be specific in four or five other areas, and I am not going to try to keep you from doing it. We are going to run out of time, I think. Let me ask you a couple of questions. You told us you are proceeding with a number of alternatives as far as how it is going to be developed, and you are going to have input from the public and institutions and entities. And you described generally the three alternatives.

Now, it has been my understanding that the Park Service has been extremely hard pressed for operational dollars to the extent that in a number of States facilities that you used to provide service 7 days a week, you now provide 5. At Carlsbad Caverns, for instance, you have cut back there because of operational funds.

Now, have you evaluated the operational cost to the Federal Government of any of the options in advance of proposing them, or will you do that after you have gotten the input?

Mr. EVERHARDT. We see this, Mr. Chairman, as a very real part of the planning activity. These four alternatives are discussed further in the planning process of the public involvement. And as we come down to a specific set of alternatives, we will develop an economic evaluation of those alternatives and how they would affect not only the development that may be included, but also the economic considerations from a standpoint of operations.

And, essentially, from this could very well develop a set of priorities for the alternatives as well as what future operational and development plans may very well be in this area.

Senator DOMENICI. Is it fair to say that that which you are going to have to do in operating this park will be substantially different from that which you had contemplated if we built the reservoir?

Mr. EVERHARDT. I am not sure that it would be substantial, Mr. Chairman. I think these are things that will still come out in the process of planning. There will be, I would think, some additional

operational needs with a free-flowing stream including protection and management of the resource, how extensive this will be, will be reflected in the planning process.

Senator DOMENICI. I gather from a number of witnesses and statements that I have read, that those who oppose the reservoir envisioned that this ought to be used more in its natural state and the utilization by people ought to be more closely related to the natural habitat and culture and history of the area than the recreation that was related to a manmade lake. Are you taking that into account? I don't know that you will conclude that that is correct or can be done or is appropriate. But are you taking that into consideration in your alternates?

Mr. EVERHARDT. Certainly, Mr. Chairman. The four alternatives that we have, one would be to maintain and operate the area in accordance with sort of a historical, cultural scene of the Delaware River.

Another alternative would be to manage it in conformity with the much more traditional lake areas that you are familiar with out in the West. That is one of the alternatives.

So both of those are being looked at.

Senator DOMENICI. Go ahead, sir.

Mr. EVERHARDT. Moreover, the wording of the legislation would appear to transfer to the Secretary of the Interior actual construction authority for the dam and reservoir, if not limited to land acquisition and Highway 209 relocation. For all of these reasons section 2(b) should be rewritten as suggested.

Section 3 purports to set priorities for completion of the land acquisition. Subsection (6) to the National Park Service is the highest priority, yet in the legislation it is listed last. If the suggestion above is adopted and the corps retains the acquisition authority, then we could resolve acquisition priorities administratively. In any event, it would seem inappropriate to legislatively establish such priorities since it destroys administrative flexibility in the event change is needed. This section, we believe, should be deleted.

Section 4(a) should be deleted if the corps is to retain authorities as suggested above.

Section 4(b) should specify the amount of the cost of the proposed additional land acquisition for the remaining Tocks Island Lake portion exclusive of the cost of acquiring the land for the right-of-way by increasing the present land acquisition ceiling for the overall Delaware Water Gap National Recreation Area by $27,700,000 from $65 million to $92,700,000.

Since section 2(a) of the proposed bill would transfer to the Secretary of the Interior all land previously acquired pursuant to the Tocks Island Reservoir project, it should also provide that any such land that is determined by the Secretary not be required when a general management plan for the national recreation is developed may be declared excess and disposed of pursuant to the Real Property and Administrative Services Act of 1949, which is not ordinarily available as a vehicle for the disposition of park property unless specially authorized.

Again, Mr. Chairman, first and foremost, we support the deauthorization of the Tocks Island Reservoir project, but we also urge you to

consider favorably the modifications to S. 3106 which we have suggested herein, particularly with regard to the responsibility for relocating U.S. Highway 209 and completion of land acquisition. If anyone other than the corps is designated to relocate the highway, delays in the development of the recreation area will result. The corps has been continuously involved in this project and they should be permitted to carry it through to its conclusion.

Frankly, we are anxious to get started on the recreational development of this area. The Delaware River Valley is unique in that it is an outstanding resource located practically in the middle of the largest megalopolis in the United States.

I would be happy to answer any questions, Mr. Chairman.

Senator DOMENICI. I just had one observation. It is my understanding from staff that in the 1965 act the corps was authorized to act as your acquisition agent, even for park lands that were adjacent to the project.

Mr. EVERHARDT. That is right.

Senator DOMENICI. And that is an added reason in terms of their being involved totally in the land acquisition. That is where they have been, as I understand it.

Mr. EVERHARDT. Yes, sir.

Senator DOMENICI. I don't have any more questions. We may have some in writing. In that event, we will get them to you for the record.

Senator RANDOLPH. I know there are other witnesses, and certainly we want to hear them, with the voting schedule moving closer in the Senate.

I will have before you, Mr. Everhardt, questions, and you can answer them, although I will not take your time either to ask them or for you to answer them here. They will be made a part of the printed record. Is that agreeable with you?

Mr. EVERHARDT. Very much so. We would be happy to respond to any questions.

Senator RANDOLPH. There are many questions I think we need to clarify. There is one or two questions. May I ask, Mr. Chairman, very quickly?

Senator DOMENICI. Surely.

Senator RANDOLPH. What would be the modus operandi, Director, that the National Park Service would use to fund a road project?

Mr. EVERHARDT. A road project would come under our normal construction request, Mr. Chairman. I might point out that the National Park Service has in fiscal year 1976 only about $18 million. I think that is the figure for road construction throughout the National Park Service. You can certainly see what a project of this magnitude would do to the annual appropriation which is to cover all 288 areas in the National Park System.

Senator RANDOLPH. Has there been a nonuse of such funds?

Mr. EVERHARDT. A nonuse? No, sir.

Senator RANDOLPH. That is all.

Senator DOMENICI. Thank you very much. We thank you, Mr. Everhardt, for your testimony.

Is Dr. Goddard, secretary of the Department of Environmental Resources for the Commonwealth of Pennsylvania, here?

STATEMENT OF DR. MAURICE K. GODDARD, SECRETARY, DEPARTMENT OF ENVIRONMENTAL RESOURCES, COMMONWEALTH OF PENNSYLVANIA, REPRESENTING GOV. MILTON J. SHAPP

Mr. GODDARD. Mr. Chairman, I would like to have you include in the record, if I may, the complete statement of Governor Shapp. I apologize that he is in Europe, or he would have been here in person.

In order to save time, I am going to use portions of it, and I will skip parts and try to elaborate as I go along and try to be helpful, if I may.

Senator DOMENICI. The statement will be part of the record and we will appreciate your efforts to make it as short as possible. Thank you very much.

Mr. GODDARD. The Commonwealth of Pennsylvania continues its support for immediate construction of the Tocks Island Dam and Reservoir project, as it has since the project was first conceived.

I would like to deviate very briefly and stress to you it has been supported by governors from both political parties. I would like to emphasize that the Commonwealth, after Hurricane Diane, bought half a million dollars of property in the project area and still retains that property.

Senator DOMENICI. Would you withhold for a moment?

General, before you leave, you can answer from right there—what is the cost of relocating that road? We never got that in the record.

General GRAVES. Sir, the cost for building two paved lanes on a four-lane alinement is $51 million. The cost for building four paved lanes, that is, the dual highway, would be $82 million. The proposal was that the Corps of Engineers would build the two paved lanes, and then at some future date others would build the other two lanes.

Senator DOMENICI. Thank you.

Excuse me, Doctor; go ahead.

Mr. GODDARD. All right, sir. Thank you.

This project, sir, is vital to the health, safety, and welfare of the citizens of the Commonwealth. The Delaware River basin and its service area urgently need the flood protection, water supply, and recreational benefits this project can supply, and they need them now.

Deauthorization would put us right back to the point where we were 20 years ago, with no immediate means of meeting the present and future water and water-related needs of the citizens and industry of the four-State basin and its service area. It is to be remembered we have gone through three complete congressional authorizations to reach this point—briefly, the authorization for the reservoir in 1962, the national recreational area in 1965, and the pump storage authorization in 1970.

And, if I may, I think it is important to point out that while the general talks about the $60 million spent on a project, perhaps a lot of people think that is all that has been spent. I don't think he has included the money we spent and the funds from the land and water conservation fund for the recreation area. It is my understanding that well over $100 million has been spent on the total project, as we conceive it to be.

The time, effort and moneys expended to date would be largely wasted and planning would have to start over again with no real assurance that the end product would not meet with the same or even greater pressures than has Tocks.

Deferral would be akin to deauthorization because the increased costs in the interim period would almost surely assure that the project would never be constructed, and again the needs would be unmet.

I think also we should stress that we have already had the trauma of dislocating the people. Most of the people have been bought out, been relocated, and you would start that process all over again.

A decision to stage construction, relocate the project, or to construct it on a smaller scale would all cause increased costs, long delays for redesign, and would be almost the equivalent of starting over again.

Because certain questions were raised about possible environmental impacts of the project and its ability to meet its stated objectives, Congress in 1974 authorized a 1-year impartial analysis of the project which was to include a study of alternative means of meeting the objectives of the project.

That study, when completed, was indeed comprehensive in most respects, but we believe that the consultants failed to fully consider and analyze two important aspects.

First: While the possible adverse environmental impacts associated with the Tocks Island Lake project were carefully analyzed, little or nothing was done to analyze the social, economic, and environmental impacts which would accrue to the Delaware River basin and its service area if the Tocks Dam was not constructed. We believe these impacts will prove to be more devastating than those associated with construction of the project.

Second: The study stressed means of meeting the water needs of New Jersey, but the needs of Pennsylvania were apparently dismissed as being less urgent and inconsequential.

This is simply not true—there is an immediate and urgent need in Pennsylvania for the water supply, flood control, power, recreation, and flow stabilization which could be supplied by the Tocks Island Lake project.

Keep in mind, gentlemen, that the Tocks Island Dam and Reservoir project was and is, as was mentioned today, the key element of a very carefully conceived basinwide comprehensive plan designed to meet the present and future water needs of the citizens of the Delaware River basin. And some of that has been built. It was part of a comprehensive plan, and we have implemented a lot of that plan.

The Delaware is a relatively small river, but it must meet the water demands of the greatest concentration of population and industry in this country.

Some of the other elements of that basinwide plan have currently been completed, are under construction, or are in planning. I must point out, however, that the aggregate benefits of all of the other reservoir projects in the plan do not total those which can be attributed to the Tocks Island project.

There is no denying that the alternative programs developed during the study were technically feasible, but our analysis indicated that they were simply not acceptable or viable from a practical, political, social, environmental, or economic standpoint.

Generally they called for dispersal for various functions to other locations, a procedure which would only serve to compound environmental impacts, reduce multiple purposes, increase delivery requirements, reduce cost effectiveness, and distribute any consequential social and economic impacts over a larger area.

We are quite certain that any attempt by the States to implement the alternative programs used for comparison purposes in the study will immediately precipitate severe resistance in the areas affected on the basis of the environmental and economic impacts they will engender.

In other words, there is no support for the alternates. There is no authorization, nothing in the pipeline. There is no funding for any of them at the State or local level or the Federal level. And after you have overcome all those, Mr. Chairman, we would have the same environmental impact problems we have at the present time. I said last year that not one single one of those alternative reservoirs would be built in 30 years. I say today it will be 30 years from today, that they will not be built—that would make it 31 years.

I would like to skip through to the midportion of page 7 and save considerable time.

The report indicated that we could, in lieu of Tocks Island, meet the flood control needs by either constructing a dry dam on the Delaware River, by relying on six tributary reservoirs and nonstructural measures, or by relying wholly on nonstructural measures.

To make the best and most economic use of our few suitable reservoir sites, we in Pennsylvania have long subscribed to multiple purpose use of reservoirs in order to achieve and make the most efficient use of our natural resources and to minimize environmental impacts.

I would like to stress that two reservoirs have been built almost exactly similar to this—Allegheny in the west of the Commonwealth and the Raystown Reservoir in the dead center of the Commonwealth. They are about the same acreage and have the same benefits. They have been well received, and I don't think you could remove the reservoirs today without a real hiatus. We have gone through similar problems with those reservoirs, but they are now well accepted.

Further, we have long subscribed to the fact that the best and most efficient flood control system must employ both structural and nonstructural measures working in concert. We already know that neither one, alone, can provide the protection of a coordinated system.

In the case of water needs for electric power generation, the consultant indicated that we could use combined cycle plants, but that the pump storage alternative in Tocks would be the best. In this day of energy shortage, I believe we would be remiss in our duty to even suggest the construction of additional oil- or coal-fired facilities to meet this demand.

Now let me turn to one of the questions which has been raised with respect to Tocks.

Much emphasis has been given to the fact that the reservoir would be eutrophic. The consultant stated, however, that the water supply, flood control, and power generation purposes would not be significantly affected by this condition. On the other hand, he also stated that it "will have a detrimental effect upon the use of portions of the lake for recreational purposes, as some swimmers and boaters will

find it relatively uninviting. Patronage levels are not expected to be affected by this condition."

I can report we have a reservoir in western Pennsylvania that covers a larger surface area than this reservoir, to the tune of 11,000 acres. It is the Pymatuning Reservoir and it is used by about 4 million people on a yearly basis. The Allegheny and the Raystown Reservoirs are also being heavily used.

The latter statement bears out the feeling we have had all along that the eutrophication question has been vastly overemphasized. There are very few lakes in existence that are not eutrophic in some degree, and, indeed, a lake must be at least partially eutrophic to support fish life.

It has been our experience that visitor load and visitor use of Pennsylvania lakes being used for recreational purposes, many of which are more highly eutrophic than Tocks Island will ever be, have experienced little or no decrease in use for this reason.

I have discussed on the next page the low-flow needs. That will be mentioned briefly by another witness. But if we don't have the low flow—we are now building three major sewer treatment plants in Philadelphia, and they are spending about 360 million on them. If they have to build a tertiary-type system Philadelphia will be the only major city in America that will have to build a tertiary waste treatment system.

Prior to tropical storms Connie and Diane, the statement was often made that the probability of flooding on the Delaware was virtually nil, and in the case of the Susquehanna River, it was considered virtually impossible for a flood worse than that of 1936 to ever occur. Needless to say, both of those guesstimates were wrong and should have taught us by now not to underestimate the vagaries of Mother Nature.

I am sure you will forgive me if I appear somewhat gun shy with respect to Nature's whims at this point—we have twice experienced disastrous flooding in Pennsylvania since I became Governor—I am talking for Governor Shapp. Last year we had Eloise and in 1972 we had Agnes.

Had either tropical storm Agnes or Eloise in 1972 and 1975, respectively, shifted just a little to the east, the main stem of the Delaware and its major population and industrial centers could easily have experienced the same devastation as our Susquehanna Basin communities. In fact, it would have been a higher flood than in 1955 in the Delaware River.

Actually, the restudy of the Tocks Island Dam and Reservoir project only served to verify what we already knew—that the project, weighed against possible alternatives, was still the best alternative to solve major portions of the basin's water supply, flood control, power, and recreational deficiencies.

We in Pennsylvania firmly believe that the identified adverse impacts can and should be minimized, and that immediate construction of the Tocks project represents the best and most economic management and use of our water resources.

As stated previously, we also recognize that any of the alternates presented, or for that matter, any other combination of alternatives we might devise, would also produce some undesirable environmental impacts.

Farsighted people buy life insurance to assure the welfare of their survivors and automobile and homeowners insurance to protect themselves against the unforeseen.

We consider the Tocks Island project as insurance designed to protect the economy, welfare, and safety of the basin's citizens and industry, and are firmly convinced that Pennsylvania needs this insurance now. Even if present population and growth projections do fall short, it will simply extend the effective term of the insurance.

The Tocks Island Lake project represents a major opportunity in a four-State region to furnish lasting, multiple benefits for an expanding megalopolis of presently some 30 million people. These millions of benefactors, and those of the future, must be considered in our public responsibility to provide the greatest benefits to the greatest number of people.

For all of the above reasons, I reaffirm the Governor's and the Commonwealth of Pennsylvania's longstanding position favoring immediate construction of the Tocks Island Lake project—we don't want the project deauthorized; we don't want it delayed; we need it now.

We would like to have it constructed as quickly as possible, Mr. Chairman.

Now, on the question of having it as a wild area, as the chairman perhaps knows, the upper portion of the Delaware River from Hancock to Port Jervis, about a 75-mile stretch, is in the Wild and Scenic River Act for study, and the Bureau of Outdoor Recreation is now preparing a recommendation to the Congress on a protection of the 75-mile stretch of the river immediately upstream of this proposed project. So that could complement Tocks Island Dam if it was built complementing a more developed recreation area with a less-developed natural area.

The Commonwealth has carried that philosophy forward over on the Lehigh River, which is a tributary to the Delaware, and at the nearby Beltsville Reservoir, which has been built by the corps. The Commonwealth itself is now buying a 26-mile stretch of the Lehigh River to the Walter Dam to protect it as a natural area. It is about a 6,000-acre acquisition. So I think you do one type of activity to complement the other.

Insofar as the highway is concerned, I think it would be a catastrophy for the Government of the United States to spend another $51 million on a project of this magnitude if we do not build a reservoir. There is a stretch of better than a mile between existing 209 and the river to its east. I am sure it could be developed adequately for recreation. And I think we have gone through the trauma of displacing hundreds and literally thousands of people for the project. Why displace a lot more people and acquire a lot more land and do a lot more grading and cutting and filling that will do a lot more environmental harm to relocate this highway.

In fact, in western Pennsylvania we built a four-lane State highway, Highway 422, similar to 209, through a park so we could have access. And it is only an 18,000-acre park. Here you have got a project of maybe 60,000 acres or better. It is incomprehensible to me how a road in the national recreation area will harm it.

I just finished reading a book about a national park in Utah. The Park Service built a road through the middle of it, much to the distress of the rangers and other people who operated the park. So they are being inconsistent. In one park they don't want a road and in another they want one constructed.

Senator DOMENICI. Is it true that the Commonwealth of Pennsylvania is improving a portion of the present 209?

Mr. GODDARD. I cannot respond too favorably to whether that is true or not. That is a different agency, and I didn't check that out before I came. I think the lower end, perhaps near Strasburg. But 209 is basically a level road, pretty straight, against the hill on the west side of the proposed reservoir. And if you relocate it, it goes up on top of the mountain. It is now in a particularly good location but it needs improvement. You wouldn't have to do as much work, or construct as many bridges if you rebuild at the present location.

Senator DOMENICI. We got a letter from a constituent of yours who apparently lives in the area. The indication is that on Wednesday, July 14, the highway safety program under the highway department there began a program of 4.1 miles of reconstruction, grading, surfacing of 209. The indication is this is about one-fifth of the entire stretch which is under consideration for relocation. I will make that part of the record. We will check it out.

Mr. GODDARD. I would think that the Governor would want to reserve some comments on the exact relocation until he sees more about the National Park Service recommendations. We are now distributing the material that Mr. Everhard referred to among our agencies and will get the comments he asked for this next month. So the Commonwealth will respond, I think, to that road matter in our response to the National Park Service.

That is a tremendous amount of money to build a major park road. We built a park system with about twice that amount of money that accommodated about 34 million visits last year. So if we wanted to produce recreation for people, I am sure I could find a better way to spend $51 million than to put it up on that mountaintop.

Senator DOMENICI. Dr. Goddard, have you been in attendance at the various meetings of the Streams Commission and with the Governors on this issue?

Mr. GODDARD. I have spent since March of 1955 working on this project. Maybe a few people have spent more time and energy on the Delaware River comprehensive planning than I, but I doubt it. It was referred to earlier that the people didn't know about the project. I conducted the public hearings in Stroudsburg prior to authorization in the late fifties. I conducted the public hearings where we bought a town out twice in the late fifties. I have been intimately connected with almost every hearing and every project that has to do with Tocks Island and the national recreation area.

It was our concept, perhaps, and thought that we ought to build a national recreation area around the reservoir. There was not a national recreational area east of the Mississippi prior to this authorization, and we had a very difficult time convincing Senator Bible and the various committees that there was a legitimate need to build this great recreation area around the reservoir. I am convinced in my own mind if there hadn't been a proposal of the reservoir, there wouldn't be a recreation park.

The Corps is doing most of the recreation activity at Raystown the same as the National Park Service is doing at the DWGNRA and the Forest Service is doing around the Allegheny Reservoir. My department is doing most of the recreation for the Beltsville Reservoir So we have tried to spread that recreational responsibility between various Federal agencies and other State agencies.

Senator DOMENICI. I think we are going to have to move to the next witness, although I think it might be worthwhile if you waited here if you are not in a hurry. We are going to have the representative of Governor Carey and Governor Tribbitt, so we may have some exchange between you if you don't mind.

Mr. GODDARD. I planned to hear what they had to say anyway.

I want to say that New York is upstream of the reservoir. Obviously, the proposal does not involve any of their land. The Delaware is well downstream and the project does not involve any of their land and people. I think it is important that the two States that carry the burden of the project as far as displacement of people, taking land off tax rolls, that sort of thing, are the States of New Jersey and Pennsylvania.

[Governor Shapp's statement follows:]

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STATEMENT BY

THE HONORABLE MILTON J. SHAPP

GOVERNOR OF THE COMMONWEALTH OF PENNSYLVANIA

BEFORE THE

SUBCOMMITTEE ON WATER RESOURCES

OF THE

COMMITTEE ON PUBLIC WORKS

U. S. SENATE

WASHINGTON, D. C.

JULY 23, 1976

PRESENTED BY MAURICE K. GODDARD
SECRETARY OF ENVIRONMENTAL RESOURCES
COMMONWEALTH OF PENNSYLVANIA

The Commonwealth of Pennsylvania continues its support for immediate construction of the Tocks Island Dam and Reservoir Project, as it has since the project was first conceived.

This Project, Gentlemen, is vital to the health, safety and welfare of the citizens of the Commonwealth. The Delaware River Basin and its Service Area urgently need the flood protection, water supply, and recreational benefits this Project can supply, and they need them now!

Deauthorization would put us right back to the point where we were 20 years ago with no immediate means of meeting the present and future water and water-related needs of the citizens and industry of the 4-State Basin and its Service Area. It is to be remembered we have gone through three complete Congressional authorizations to reach this point.

The time, effort, and monies expended to date would be largely wasted, and planning would have to start over again with no real assurance that the end product would not meet with the same, or even greater, pressures than has "Tocks".

Deferral would be akin to deauthorization because the increased costs in the interim period would almost surely assure that the project would never be constructed, and again the needs would be unmet.

A decision to stage construction, relocate the project, or to construct it on a smaller scale would all cause increased costs, long delays for redesign, and would be almost the equivalent of starting over again.

Because certain questions were raised about possible environmental impacts of the project, and its ability to meet its stated objectives, Congress, in 1974, authorized a one-year, impartial comprehensive analysis of the project which was to include a study of alternative means of meeting the objectives of the project.

That study, when completed, was indeed comprehensive in most respects, but we believe that the consultants failed to fully consider and analyze two important aspects.

First, while the possible adverse environmental impacts associated with the Tocks Island Lake Project were carefully analyzed, little or nothing was done to analyze the social, economic, and environmental impacts which would accrue to the Delaware River Basin and its service area if the Tocks dam was not constructed. We believe these impacts will prove to be more devastating than those associated with construction.

Second, the study stressed means of meeting the water needs of New Jersey, but the needs of Pennsylvania were apparently dismissed as being less urgent and inconsequential.

This is simply not true -- there is an immediate and urgent need in Pennsylvania for the water supply, flood control, power, recreation, and flow stabilization which could be supplied by the Tocks Island Lake Project.

Keep in mind, Gentlemen, that the Tocks Island Dam and Reservoir Project was, and is, the key element of a very carefully conceived basin-wide comprehensive plan designed to meet the present and future water needs of the citizens of the Delaware River Basin and its Service Area, which includes the City of New York.

The Delaware is a relatively small river, but it must meet the water demands of the greatest concentration of population and industry in this country.

Some of the other elements of that basin-wide plan have currently been completed, are under construction, or are in planning. I must point out, however, that the aggregate benefits of all of the other reservoir projects in the plan do not total those which can be attributed to the Tocks Island Project.

As I stated earlier, "Tocks" is the key element of the plan -- with the key in place we can open the door to a bright future for the Delaware area. Remove the key, and the future of the area becomes a mighty grim prospect.

One extremely important point with respect to the recently-completed Comprehensive Study of the Tocks Island Lake Project and Alternatives which was missed or ignored by many, was the fact that the consultant's responsibility, with respect to studying alternatives, was limited to the definition of technically feasible alternatives which would also meet the basins resource needs and serve as a basis for comparison with the Tocks Island Lake Project, as presently proposed.

There is no denying that the alternative programs developed during the study were technically feasible, but our analysis indicated that they were simply not acceptable or viable from a practical, political, social, environmental, or economic standpoint.

Generally, they called for dispersal for various functions to other locations, a procedure which would only serve to compound environmental impacts, reduce multiple purposes, increase delivery requirements, reduce cost effectiveness, and distribute any consequential social and economic impacts over a larger area.

We are quite certain that any attempt by the States to implement the alternative programs used for comparison purposes in the Study will immediately precipitate severe resistance in the areas affected on the basis of the environmental and economic impacts they will engender.

The following will clarify my point that technically feasible alternative programs are not necessarily feasible from a practical, economic, social, or political stand.

In Programs "A" and "B", the consultant suggested construction of seven tributary reservoirs, six in Pennsylvania and one in New Jersey, at an estimated cost of $288.3 million, to meet water supply needs.

If we were able to construct all seven, we would obtain a yield of 322 million gallons per day, which is roughly equivalent to the 300 mgd diversion needed for the north Jersey subarea, and a little more than one half of the total yield of the "Tocks" project.

Keep in mind, too, that the consultant's report says very little about Pennsylvania's downstream water needs, or the fact that presently unforeseen circumstances may cause us to require more water than presently anticipated.

Three of the above reservoirs, two in Pennsylvania and one in New Jersey, would collectively provide for 258 out of the 332 million gallons per day. However, because they do not contain flood control storage, they would have to be constructed wholly at State cost. While we would have to pay for water supply storage in Tocks Island, we would not have to pay for the construction, operation, and acquisition costs, associated with the other project purposes.

If all seven were to be constructed, the environmental and social impacts to the areas affected would nevertheless still precipitate severe resistance from the public.

Finally, there is the sensitive political question as to whether Pennsylvania can afford this use of her land and the disruption of her citizens for reservoirs designed to meet New Jersey's out-of-basin water supply needs.

The consultant suggested three possible alternative programs to meet the recreation demands, only one of which would furnish the same visitation as Tocks Island. These investment costs ranged from roughly $283,000,000 down to $175,000,000, with annual operation and maintenance costs ranging from $1,400,000 up to $2,800,000.

All three of these alternative programs assume operation of the Delaware Water Gap National Recreation Area without "Tocks Island".

Program "A" called for expansion of all State parks and programs. Program "B" called for the opening of closed water supply and other reservoirs, for recreational use, and expanded use of already overloaded State Park Systems, while Program "C" called for no public programs.

These are all technically feasible alternatives, but, from a practical standpoint, the States and local communities cannot afford these capital outlays nor the annual operations and maintenance costs associated with them.

Further, based on our past experience, the proposal to open the presently closed water supply reservoirs for recreational use is one that is fraught with political problems and very difficult to achieve.

The report indicated that we could, in-lieu-of "Tocks Island," meet the flood control needs by either constructing a dry dam on the Delaware River, by relying on six tributary reservoirs and nonstructural measures, or by relying wholly on nonstructural measures.

To make the best and most economic use of our few suitable reservoir sites, we, in Pennsylvania, have long subscribed to multiple purpose use of reservoirs in order to achieve and make the most efficient use of our natural resources and to minimize environmental impacts.

Further, we have long subscribed to the fact that the best and most efficient flood control system must employ both structural and nonstructural measures working in concert. We already know that neither one alone can provide the protection of a coordinated system.

In the case of water needs for electric power generation, the consultant indicated that we could use combined cycle plants, but that the pump storage alternative in "Tocks" would be the best. In this day of energy shortage, I believe we would be remiss in our duty to even suggest the construction of additional oil-fired facilities to meet this demand.

Now let me turn to one of the questions which has been raised with respect to "Tocks".

Much emphasis has been given to the fact that the Tocks Island Lake would be eutrophic. The consultant stated, however, that the water supply, flood control, and power generation purposes would not be significantly affected by this condition. On the other hand, he also stated that it "will have a detrimental effect upon the use of portions of the lake for recreational purposes, as some swimmers and boaters will find it relatively uninviting. Patronage levels are not expected to be affected by this condition."

The latter statement bears out the feeling we have had all along that the eutrophication question has been vastly overemphasized. There are very few lakes in existence that are not eutrophic in some degree, and, indeed, a lake must be at least partially eutrophic to support fish life.

It has been our experience that visitor-load and visitor-use of Pennsylvania lakes being used for recreational purposes, many of which are more highly eutrophic than "Tocks Island" will ever be, have experienced little or no decrease in use for this reason.

Low flow augmentation needed to stabilize downstream flows is, as you know, a feature of the water supply element of "Tocks Island". Flow released for water supply purposes will in turn help in the assimilation of downstream waste flows and help to keep the "salt-front" in check.

I cannot emphasize too strongly the need for this downstream flow. For example, the City of Philadelphia is currently upgrading its treatment facilities, based on present standards and flow criteria which, in turn, are predicated on the maintenance of a flow of 3,000 cfs at Trenton.

The Tocks Island Lake Project is the only single authorized project which can assure this.

The present estimate for this upgrading is in the neighborhood of 360 million dollars. If the flow is not maintained, Philadelphia could be the first and only major city in the country forced to go to tertiary treatment, and the increased cost would be nothing short of astronomical.

If we appear to have little faith in statistical recurrence probabilities and believe instead in preparing in advance for emergency conditions, it is because we remember full well that the drought of the 30's was accorded a low probability of recurrence until the much more serious drought of the mid 60's proved how wrong our earliest estimates had been.

Further, prior to tropical storms Connie and Diane, the statement was often made that the probability of flooding on the Delaware was virtually nil, and, in the case of the Susquehanna River, it was considered virtually impossible for a flood worse than that of 1936 to ever occur. Needless to say, both of those guesstimates were wrong and should have taught us by now not to under-estimate the vagaries of Mother Nature.

I am sure you will forgive me if I appear somewhat "gun-shy" with respect to Nature's whims at this point -- we have twice experienced disastrous flooding in Pennsylvania since I became Governor.

Had either Tropical Storm Agnes or Eloise in 1972 and 1975, respectively, shifted just a little to the East, the main stem of the Delaware and its major population and industrial centers could easily have experienced the same devastation as our Susquehanna Basin communities.

Actually, the restudy of the Tocks Island Dam and Reservoir Project only served to verify what we already knew -- that the project, weighed against possible alternatives, was still the best alternative to solve major portions of the Basin's water supply, flood control, power, and recreational deficiencies.

We, in Pennsylvania, firmly believe that the identified adverse impacts can, and should, be minimized, and that

immediate construction of "Tocks" represents the best and most economic management and use of our water resources to meet the stated needs of our people and industry.

As stated previously, we also recognize that any of the alternates presented, or for that matter, any other combination of alternatives we might devise, would also produce some undesireable environmental impacts.

Farsighted people buy life insurance to assure the welfare of their survivors, and automobile and home owners insurance to protect themselves against the unforeseen.

We consider the "Tocks Island" project as insurance designed to protect the economy, welfare, and safety of the basin's citizens and industry, and are firmly convinced that Pennsylvania needs this insurance now. Even if present population and growth projections do fall short, it will simply extend the effective term of the insurance.

The Tocks Island Lake Project represents a major opportunity in a four-State region to furnish lasting, multiple benefits for an expanding megalopolis of presently some 30-million people. These millions of benefactors, and those of the future, must be considered in our public responsibility to provide the greatest benefits to the greatest number of people.

For all of the above reasons, I reaffirm the Commonwealth of Pennsylvania's longstanding position favoring immediate construction of the Tocks Island Lake Project -- we don't want the Project deauthorized, we don't want it delayed, we need it now!

Senator DOMENICI. Is Mr. Eichler here?

STATEMENT OF TOM EICHLER, DIRECTOR, DIVISION OF PROGRAM DEVELOPMENT, DEPARTMENT OF ENVIRONMENTAL CONSERVATION, STATE OF NEW YORK, REPRESENTING GOV. HUGH L. CAREY

Mr. EICHLER. I have a very brief statement I would like to read, if I may.

Mr. Chairman and members of the Subcommittee on Water Resources, I am Thomas P. Eichler of the New York State Department of Environmental Conservation, representing Gov. Hugh L. Carey in providing New York's views and recommendations on S. 3106 to terminate the authorization for the Tocks Island Reservoir project as part of the Delaware River Basin project.

New York State strongly supports passage of S. 3106. From an environmental standpoint, the dam project has serious shortcomings. The predicted eutrophic state of the reservoir will detract from its recreation potential. A dam in the Delaware would result in the loss of one of the last major free flowing rivers in the Northeast and the loss of a unique fishery resource for the American shad which spawn in the New York headwaters of the basin.

If the dam were constructed, New York citizens would have to assume an even larger financial burden to control phosphorous discharges to the upper Delaware River. This would result in a severe economic hardship and possibly a complete loss of the $28 million poultry industry, as well as a significant loss of the dairy industry in New York State.

In view of these concerns, New York State strongly supported the reevaluation of the Tocks Island Reservoir project which Congress authorized in 1974. This reevaluation concluded that their alternatives are available for meeting the water supply, flood control, power generation, and recreation needs in the Delaware Basin.

Accordingly, New York joined with the majority of the members of the DRBC in its actions of July 31, 1975, which urged Congress not to appropriate construction funds for the dam project, but also urging that Congress appropriate funds to complete land acquisition in the project area.

Enactment of S. 3106 is in keeping with the views expressed by New York State that the dam be deauthorized and that the Delaware Water Gap National Recreation Area project be completed. New York is committed to working with neighboring States in supporting the recreational projects and other alternative measures to the dam project.

New York State supports the provisions of the bill for the transfer of property acquired for the Tocks Island project to the Secretary of the Interior to be administered as part of the Delaware Water Gap National Recreation Area and for the acquisition of certain additional lands and easements on a priority basis.

Such action will allow for the creation of a recreation area with a free flowing Delaware River as its focus and will hold the lands in trust for the future needs of the Delaware Basin. Approximately 70 percent of the 70,000 acres required for both the Tocks Island project and the national recreation area have been purchased at a

cost of $97 million. Alternative plans have been developed by the Department of the Interior for a recreation area based on a free flowing Delaware River.

In conclusion, New York State urges favorable Senate action on this bill to deauthorize and transfer the property to the Department of the Interior.

Thank you.

Senator DOMENICI. Let me just say this to you: You understand, I assume, having been here in the hearing, the concern I have. I don't think we ought to be forcing the project on a number of States when a majority of them don't want it. But I do leave this with you as a thought—I think the notion that we ought not deauthorize but re-evaluate the lake, I don't think there is any difference between the two. I think, really, that we ought to decide whether we are ending one aspect of this project or not.

But I am impressed, just as one Senator, with the theme that we would get a recreation area out of this by deauthorizing. I think the very serious question is whether we will get anything else, whether we will get any flood protection, whether we will get any water conservation and reallocation of the available resources for a growing environment.

I just think it is easy to say there are alternatives, and, again, I am just one member on this committee. But I do hope, in listening to this, that the concern as to going from saying there are other alternatives to getting them should be seriously considered. I am not going to force my wishes on anyone, and I understand your Governor's position. I understand his right to have his position, and I respect it eminently. But with everything I read, I truly suspect we are going to get a beautiful new recreation area substantially different in nature than the one contemplated before. The road is in question, but beyond that, I believe that to say there are alternatives for the flood protection and the water availability is nothing more than rhetoric at this point. I see no way they are going to evolve out.

I think the long time and the money and the frustration to this point probably militates against them coming about very quickly.

Mr. EICHLER. Senator, I think our concern in New York is that the focus, because of the authorization, has been on the project itself. It does look at this time, certainly from our point of view, that the project is no longer viable. Therefore, I think it helps to deauthorize the project to get the public intention, the intention of the members of the Delaware River Basin Commission, of which we are one, and of the Federal agencies onto these other alternatives. As long as the authorization hangs on, the tendency is not to devote our attention and energy to those alternatives.

Senator DOMENICI. We appreciate your patience this morning. Thank you.

Is Mr. Wright here?

Mr. Wright, we are going to have to be extremely brief, because the next time you hear the buzzer, I am going to have to go. I hate to do that to you, but we will put your whole statement in the record and proceed with what you would like to share.

STATEMENT OF JAMES W. WRIGHT, EXECUTIVE DIRECTOR, DELAWARE RIVER BASIN COMMISSION, REPRESENTING GOV. SHERMAN TRIBBITT

Mr. WRIGHT. Members of the committee, I am James F. Wright, executive director of the Delaware River Basin Commission, and I, have been requested to make this statement for Governor Tribbitt of Delaware, who is his State's member—and also vice chairman—of the Delaware River Basin Commission.

Delaware feels that the deauthorization of the Tocks Island Lake project, as proposed in Senate 3106, is premature. It is the feeling of Delaware that too many issues remain unresolved at this time to risk the permanent foreclosure of the Tocks Island Lake project as a means for providing our region with the widely known Tocks Island resources benefits which might otherwise be unattainable.

The possible alternatives to the Tocks Island Lake project that were discussed in the special restudy that was conducted at the direction of the Congress and submitted to it just 1 year ago, in the view of the State of Delaware, require careful investigation to determine their feasibility and practicality prior to terminating the 16-year-old authorization of Tocks Island. I feel that deauthorization of Tocks Island would be imprudent in advance of a determination that suitable alternatives are both feasible and within grasp.

The studies of 1975 left unresolved the issue of the extent to which intrusion upriver of salts from the ocean must be controlled and what means could be employed to impose such controls in the absence of Tocks Island.

I would like to inject here that the Basin Commission already has initiated a broad program comprising several factors on the matter of salinity intrusion. For example, we are now surveying the industries along the lower river to determine the effects that brackish water of varying salt concentrations will have on the economics of their manufacturing processes, and we have reached preliminary agreement with the Corps of Engineers under which it will activate the large model of the Delaware River at its waterways experimental station at Vicksburg to conduct a series of salinity-related physical tests during the first half of 1977. Other studies entailing mathematical modeling must be conducted also, and we are currently in search of the funds to finance this work, estimated to cost about $100,000.

Additionally, the feasibility of nonstructural flood protection measures to reduce damages to buildings already in the floodway, as an alternative to Tocks Island, requires explicit determination. Efforts have begun to attain authorization and funding of such work, but the results of such analysis will not be available for some time.

Essentially, Delaware's view is that studies and planning relating to possible Tocks Island alternatives can and should proceed while the Tocks Island Lake project authorization remains on the books. Although the Delaware River Basin Commission member-States voted 3-to-1 against a motion recommending congressional appropriation of Tocks Island construction funds at their special Tocks Island conference last July, Delaware wishes to note that only New York among the four member States has expressed support for deauthoriza-

tion of Tocks Island. In Delaware's opinion, this reflects the region's uncertainty that there are easy means of filling the void of benefits left by the Tocks Island decision of last year no matter how unpopular be Tocks Island.

No harm can come from preserving the Tocks Island authorization. It cannot be reactivated without hearings and formal public decision by the Delaware River Basin Commission. By retaining the authorization, we leave open the option of returning to Tocks Island in the event that no suitable alternatives, such as those that we hope are sitting in the wings, can be found.

Thank you very much.

Senator DOMENICI. I compliment you on the succinctness of your statement. I think you have clarified some of the issues also with reference to positions.

We have one remaining witness, Mr. Joseph Radziul. I have to go vote. If you all will wait, I will try to come back. It just takes about 5 minutes.

[Brief recess]

Senator DOMENICI. I apologize for the delay. I think we will have a few minutes before another vote. I appreciate your patience. Would you proceed.

STATEMENT OF JOSEPH V. RADZIUL, PHILADELPHIA WATER DEPARTMENT, REPRESENTING CARMEN F. GUARINO, WATER COMMISSIONER

Mr. RADZIUL. Commissioner Guarino extends his apologies to the committee for not being personally able to attend. He has to justify a 50-percent increase in rates, and this is primarily due to pollution abatement. However, we would like to have the entire statement submitted for the record. He has edited the text for presentation to the committee, containing the highlights and some second thoughts. I will proceed with the text.

My name is Carmen F. Guarino, and as commissioner and chief engineer of the water department of the city of Philadelphia, I am authorized to make the following statements for the city concerning Senate bill S. 3106, primarily a bill proposed to terminate the authorization for the Tocks Island Reservoir project.

I have been intimately involved with the water resources of the Delaware River basin for the past 26 years. I speak from a depth of knowledge and continuity rarely obtained by the changing faces in government. As a consequence, I am more than familiar with all aspects of Tocks Island Reservoir project. This involvement began with the Supreme Court decree of 1954, which conditionally allowed the States of New York and New Jersey to divert water from the Delaware River basin.

I personally experienced the hurricanes and floods of 1955 which caused loss of life and millions of dollars in devastation throughout our basin. The Philadelphia Water Department participated in the subsequent Corps of Engineers study which led to the eventual authorization of Tocks Island. Since that time I have been involved in the many studies and restudies concerning this impoundment and its environmental impact.

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It is quite obvious to those who experienced the drought of the 1960's that Tocks Island would have provided ample water supplies to prevent the economic hardships and environmental degradation that occurred. Fortunately this drought subsided just when the water supplies of Philadelphia and Camden were periled by intrusion of salinity. Industrial users of water also suffered millions of dollars of damage as the result of this increased salinity.

Implementation of Public Law 92–500—pollution abatement—in the estuary was tied directly by the Federal and State Governments on a minimum inflow at Trenton, New Jersey, which could only be insured by a dam on the mainstream of the Delaware River. The recent Drinking Water Act makes low flow augmentation for the Delaware a critical factor if we are to have safe and adequate supplies for our citizens.

The Delaware basin will have a water deficit by the year 2000 by predicted depletive uses alone—however, we have a serious water shortage right now—we have no provisions to meet the contingencies of a drought. This water deficit can only be resolved through structural measures. The problem is to get political decisionmakers to realize the real need for these impoundments and to provide for them in a timely fashion before disaster happens.

It seems to me that many people have easily forgotten or have never experienced these clear indications of the need for Tocks Island River project and have focused their sole attention for judgment on the latest in a long line of studies of Tocks Island—the Madigan-Praeger report.

The Philadelphia Water Department's review of this study, however, has found it to be defective and deficient in what I consider to be the two areas of greatest concern to the city of Philadelphia, as well as other estuarine municipal and industrial water users in the megalopolis from Trenton to Wilmington. Unless these areas are addressed and evaluated properly, political decisionmakers may be led to choose alternatives to TIRP which are not as efficacious, environmentally acceptable, and economically cost effective as Tocks is as a solution to the present and future water resource needs of the Delaware Estuary.

One important water-related need which would have a major effect on the basin's development apparently was not investigated and evaluated. In the estuary, effluent load allocations have been promulgated to achieve stream quality criteria based upon the maintenance of 3,000 fts fresh water at Trenton which are a legalistic fact of life governing the design and construction of all industrial and municipal water pollution control facilities.

The water department is currently constructing huge regional water treatment facilities which will cost upward of $415 million when completed. I am disturbed that any review study of TIRP would not evaluate the basic foundation upon which over a billion dollar abatement program has been established to protect the estuary's environment and the basin's economy. What we are talking about is a $1 billion disappointment and disillusionment which will require several billion dollars to cure. Philadelphia has employed the best practical

technology in the design of its new treatment plants. Removal efficiencies for these plants are at the 95 percent removal level.[1]

The consultant's statement that "the probability of significant intrusion into the Philadelphia and Camden water supply systems is very low * * * despite future depletive uses * * * even without the Tocks Project" is technically invalid.

In view of the water department's technical findings, we cannot agree with the consultant's conclusion that flows in the range of 200 to 2,300 ft^3/s at Trenton are sufficient for the maintenance of acceptable levels of salinity at various locations on the Delaware River. At 200 ft^3/s you would have a disaster. The Atlantic Ocean would be at Trenton. Camden well fields would be poisoned with salt water and it would take over 100 years for them to recover.

The water department's concern over the analysis of sea water intrusion is shared by many recognized experts. At a July 1975 meeting, experts from MIT, Princeton, Johns Hopkins, Rutgers, the Corps of Engineers and the U.S. Geological Survey were unanimous in their criticism of this aspect of the report.

Further indication of a lack of confidence in the consultant's analysis is New Jersey's recent request to the Delaware River Basin Commission that a study of the possibility of salinity intrusion in the Camden well fields be undertaken by the commission. New Jersey has pledged $60,000 toward this study; the Federal Government, which financed the Madigan-Praeger report, has offered $17,900.

The Madigan-Praeger report presents alternatives for water supply; however, the report is deficient in that no analysis is made of the political and environmental acceptability of these alternatives. The cost effectiveness of these alternatives is greater than Tocks.

Until viable alternatives are resolved that are technically, politically, and economically supported and justified, Tocks Island Reservoir should not be deauthorized. The Delaware Basin needs multipurpose impoundments to provide for flood loss reduction, water supply, recreation, electric power generation, water quality improvement, and conservation of fish and wildlife. All of these purposes are important now and will continue to be in the future for the city of Philadelphia as well as the social and industrial community from Trenton to Wilmington along the Delaware Estuary.

It is unfortunate that the merits of Tocks Island have been obscured by so-called environmental issues to the degree that political and social polarization has raised the issue of deauthorization of this important project. Tocks Island is essential for the human environment in this basin. It is important that a social triage is not inadvertently committed which would exclude the citizens of the basin from their just realization and share of the gross national product of these United States and the maintenance of their welfare, environment, and economy.

In view of all of our testimony, the city of Philadelphia categorically is against the deauthorization of Tocks Island Reservoir project. We urge instead that the dam be built as soon as possible to safeguard

[1] At these high rates of removal, any further increase in efficiency will involve vast expenditures which will dwarf our current outlay and require technology which is yet to be innovated.

over 6 million persons in the basin. To wait until the next drought is upon us is too late.

Thank you.

Senator DOMENICI. Thank you very much. The entire statement will be made part of the record. We appreciate your summary of it and trust your good judgment in that regard.

Is the city of Philadelphia growing in population?

Mr. RADZIUL. The last census in 1970 showed a decrease in population. Prior to that time we were over 2 million. The 1970 census showed, I think, that we are slightly over 1.9 million.

Senator DOMENICI. Is the water consumption growing, nonetheless?

Mr. RADZIUL. Despite the decrease in population, the water consumption per capita has actually increased.

Senator DOMENICI. Is the water supply problem of Philadelphia one of projecting future needs based on growth and consumption, or is the present source fragile?

Mr. RADZIUL. We are concerned about the present source of water for the salinity problem. We have to look forward that the Environmental Protection Agency will someday put in its standards a requirement for 20 milligrams of sodium. This translates into 50 milligrams per liter of chloride. Now, we can have that very well at our intake.

Senator DOMENICI. Would it be difficult for you in behalf of the city of Philadelphia—you don't have to do it today, but get it in writing—to tell us what Philadelphia has done in contemplation of this reservoir, either in expenditures or plans for future water? I understand you have relied to some extent upon this and made certain decisions or estimated certain obligations of the future. Is that the true statement?

Mr. RADZIUL. Yes, sir, at one time we had plans to go for an upland source of water. I can get that information for you.

Senator DOMENICI. For instance, you mentioned that 1 billion may turn into 3 in terms of future needs of money. Can you get us what that really means?

Mr. RADZIUL. Yes, sir, at the present time the waste treatment facilities, both industrial and municipal, are based on 90- to 95-percent removal. To go any further in efficiency forces us to go to tertiary super-advanced treatment. The costs then do not increase arithmetically. They increase goemetrically. It would be a tremendous amount of money involved.

For instance, offhand I would say it would probably cost the city of Philadelphia $1.5 billion. Now, in 1975, the assessed real estate value of the city of Philadelphia was $5.3 billion. I would suggest the comparison is a little bit ridiculous.

Commissioner Guarino is actually concerned about our present increase in treatment. He feels that the taxpayers are put into a terrifying bind. Here are some of the increased sewage costs that the individual Philadelphia families could pay. One if $50 year more to cover plant expansion and related operating costs. This on the basis of what is being done now. Also $32 a month to cover sludge disposal, whereas we use $1.50 per family at the present time; and $60 more to meet the cost of interim treatment of sewage, ordered by the EPA. The prospect of these huge costs is something that is overwhelming.

We look across the river to Camden, and we realize their aquifers will be actually poisoned with slat and continue to remain that way. For example, the last drought, which occurred in the sixties, is still having its effect in increasing the salinity in the Camden system. Wells monitored by the U.S. Geological Survey show an increase in salinity, and this is due to the salt that has infiltrated these galleries.

Senator DOMENICI. Now, I guess what I would like you to do with your city in terms of itemizing the kind of expenditures that you might have to incur—at this point I don't want them related to the Clean Water Act and the Safe Water Act. I want them related to this project. You understand what I am saying?

Mr. RADZIUL. Yes, sir.

Senator DOMENICI. What would this project have done that you expected would have minimized some of the expenditures that you plan to make.

Mr. RADZIUL. Yes, sir.

Senator DOMENICI. If you can get that for us, we would appreciate it. We thank you for your patience.

[Mr. Guarino's statement and the information requested by Senator Domenici follows:]

Senator DOMENICI. The subcommittee is in recess until 10 a.m. Monday.

TESTIMONY OF

CARMEN F. GUARINO

CITY OF PHILADELPHIA, PA

BEFORE THE WATER RESOURCES SUBCOMMITTEE

OF THE PUBLIC WORKS COMMITTEE

HEARING ON SENATE BILL NO. S-3106

23 JULY 76

My name is Carmen F. Guarino and as Commissioner and Chief Engineer of the Water Department of the City of Philadelphia, I am authorized to make the following statements for the City concerning Senate Bill S-3106; primarily a bill proposed to terminate the authorization for the Tocks Island Reservoir Project.

Contrary to some other speakers, I have been intimately involved with the water resources of the Delaware River basin for the past 26 years. I speak from a depth of knowledge and continuity rarely obtained by the changing faces in government. As a consequence, I am more than familiar with all aspects of Tocks Island Reservoir Project (TIRP). This involvement began with the Supreme Court Decree of 1954 which conditionally allowed the States of New York and New Jersey to divert water from the Delaware River Basin.

I personally experienced the hurricanes and floods of 1955 which caused loss of life and millions of dollars in devastation throughout our Basin. The Philadelphia Water Department participated in the subsequent Corps of Engineers study which led to the eventual authorization of Tocks Island under the Flood Control Act of 1962. Since that time I have been involved in the many studies and restudies concerning this impoundment and its environmental impact.

It is quite obvious to those who experienced the drought of the 1960's that Tocks Island would have provided ample water supplies to prevent the economic hardships and environmental degradation that occurred. Fortunately this drought subsided just when the water supplies of Philadelphia and Camden were being periled by intrusion of salinity. Industrial users of water also suffered millions of dollars of damage as the result of this increased salinity. Tocks Island cannot be dismissed summarily because of the impact of federal and state legislation on our waterways. Implementation of PL 92-500 (pollution abatement) in the estuary was tied directly by the federal and state governments on a minimum inflow at Trenton, New Jersey which could only be insured by a dam on the main stream of the Delaware River. The recent Drinking Water Act, PL 93-523, makes low flow augmentation for the Delaware a critical factor if we are to have safe and adequate raw water supplies for our citizens.

There is no doubt by all that the Delaware Basin will have a water deficit by the year 2000; discounting the provisions required to meet the contingencies of a drought. This water deficit can only be resolved through structural measures. The problem is to get political decision makers to realize the real need for these impoundments and to provide for them in a timely fashion before disaster happens.

It seems to me that many people have easily forgotten or have never experienced these clear indications of the need for TIRP and have focused their sole attention for judgement on the latest in a long line of studies of Tocks Island--The URS/Madigan Praeger report. This report was authorized

by Congress to fully address all of the issues and alternatives associated with Tocks Island. The summary review presented by the consultants states, in part, "the purpose of this study is to help decision makers ascertain future water resource needs of the Delaware River Basin Area and ways of meeting these needs." The summary review also states that the Study, "Does not make recommendations but rather provides information on all issues for interested parties to assess and form judgements..."

The Philadelphia Water Department's review of this study, however, has found it to be defective and deficient in what I consider to be the two areas of greatest concern to the City of Philadelphia, as well as other estuarine municipal and industrial water users in the megapolis from Trenton to Wilmington. Unless these areas are addressed and evaluated properly, political decision makers will be led to choose alternatives to TIRP which are not as efficacious, environmentally acceptable, and economically cost effective as Tocks is as a solution to the present and future water resource needs of the Delaware Estuary.

Briefly, the two areas are:

1) No mention is made of the very important water related need for low flow augmentation for the maintenance of mandated estuarine waste load allocations (90 - 95% removals) and regulatory estuarine water quality standards. These are predicated upon a maintenance of at least 3000 cfs at Trenton.

2) The technically inadequately derived conclusions that the probability of significant salinity intrusion in the Philadelphia and Camden water supply systems is very low, and that low flow augmentation despite predicted increased depletive use does not appear required.

One important water-related need which would have a major effect on the basin's development apparently was not investigated and evaluated. In the estuary, effluent load allocations have been promulgated to achieve stream quality criteria based upon the maintenance of 3000 cfs fresh water inflow at Trenton. This base flow is a critical factor for cost-effective pollution abatement in the estuary.

The Philadelphia Water Department was a member of the Committee for the Re-appraisal of the Water Resources of the Delaware River Basin and Service Area. This committee, under the aegis of the DRBC, concluded that the Tocks Island Reservoir Project would satisfy this specific water-related need during a drought similar to that experienced during the 1960's considering future depletive uses of the Delaware River water. TILP would also furnish other water-related needs in the areas of flood control, water supply, recreation and electric power.

There are many who will argue that the regulatory agencies were remiss in using an inflow of 3000 cfs at Trenton in arriving at waste load allocations because of the premise that low flow augmentation should not be a substitute for wastewater treatment. Many will vigorously support flow regulation citing that natural resources should not be wasted particularly in view of the long-term national energy crisis. In the Delaware Estuary, the 3000 cfs based allocations are a legalistic fact of life governing the design and construction of all industrial and municipal water pollution control facilities.

The Water Department is currently constructing huge regional water treatment facilities which will cost upwards of $415 million when completed. I am disturbed that any review study of TILP would not evaluate the basic

foundation upon which over a billion dollar abatement program has been established to protect the estuary's environment and the basin's economy. Philadelphia has employed the "best practical technology" in the design of its new treatment plants. Removal efficiencies for these plants are at the 95% removal level.

At these high levels of removal, any further increase in efficiency will involve vast expenditures which will dwarf our current outlay and require technology which is yet to be innovated. This holds true for the rest of the estuarine dischargers.

The consultant's statement that "the probability of significant salinity intrustion into the Philadelphia and Camden water supply systems is very low...despite future depletive uses...even without the Tocks Project" is technically invalid. If the consultant had any degree of confidence in his statement, he would not have considered alternative program "A" in his report which lists the temporary protection of the Philadelphia/Camden water supply system by relocating the Philadelphia intake and providing an alternative source for Camden as part of this alternative plan.

From a statistical viewpoint, one can seriously question the adequacy of the data base used for the stochastic hydrological calculations and for the regression analyses. For example, a forty-four year record of flows at Trenton was utilized to synthesize a 500-year flow record. In turn, eight years of conductivity data (the total dissolved solids were presumed to be predominately chlorides) were used to derive a 500-year record of synthetic salinity values. In addition, 1971 was used as a normal flow year; however, precipitation records for Philadelphia indicate 1971 to be the 15th wettest year in 101 years of record.

We can state categorically that the use of specific conductance as a measure of chloride concentration is invalid for this purpose at the Torresdake Intake, or anywhere in the Upper Estuary. Wet chemistry is the proper tool to use to measure chlorides for this area. One of the major erroneous assumptions in the consultant's analysis was that specific conductance measurements (total dissolved solids) at Torresdale were representative of sea salts from the bay. Actually for only a brief time during the 1960 drought there may have been a slight mixture of local dissolved solids and sea water. Therefore, the regression results obtained for Torresdale primarily show the concentration of local dissolved solids in relation to antecedent flow periods at Trenton; not actual intrusion of the sea at this location.

Fresh water inflows affect dissolved solid concentrations. However, other factors such as urban runoff, municipal and industrial discharges also influence these concentrations which can be measured by specific conductivity.

In Chapter III, Part 'E' of Book 'A' of the report, the consultant develops an analysis of salinity intrusion for the estuary. In view of the discussion above, we cannot agree with the consultant's conclusion that flows in range of 200 to 2300 cfs at Trenton are sufficient for the maintenance of acceptable levels of salinity at various locations on the Delaware River.

There appear to be other questions which can be raised concerning the derivation and validity of the consultant's results. Although the consultants contend that no cause and effect relationships have been determined

by their work, they are using their regression results in a deterministic sense rather than a statistical sense. It should be pointed out that while regression analysis is appropriate to identify variables which have a cause and effect relationship, the results of a regression do not ultimately confirm or deny the existence of a causal relationship.

The derived regression results, relating conductivity to flow, however, use only flow as the independent parameter. The R^2 statistics for these results, which lie in a range of .4633 to .6487, would indicate that additional parameters would be needed to explain the behavior of the conductance (hence the salinity concentrations). Since additional factors influence salinity concentrations, then the salinity concentrations predicted by these regression equations would be subject to error.

No attempt is made in the report to analyze the error of prediction associated with the regression equations. In many applications of least squares linear regression, values predicted by the regression equation can be compared with the actual values. Hence, some idea of the accuracy of the regression relation can be ascertained. However, there are no "actual" salinity values to which the predicted values can be compared, since the salinity values were obtained from an application of synthetic hydrologic techniques. Thus, there is no way of knowing how well the developed regression equations predict salinity concentrations.

There are several places in the computation methods where errors can be introduced. After the synthetic flows have been generated, they are used by a set of regression equations to predict conductivity. This is one source of error. After the conductivity values have been obtained, a second equation

derived by Keighton (which may have been modified by the consultants) is used to predict total dissolved solids from the conductivity. Without contrary information, one could assume that Keighton's relation is derived from least-squares linear regression; but again, there is no statement detailing the predictive error associated with Keighton's equation. Thus, a second source of error is introduced into the calculation. Finally, the chloride (or salinity) concentration is predicted from a curve relating total dissolved solids concentrations to the concentrations of constituent ions, including the chloride ion. Without further knowledge of how the relationship between dissolved solids and chloride concentrations were developed, there is no way of assessing the amount of error inherent in this relationship especially at low conductivity levels even if they don't contain sea salts.

The consultants contend that their assumptions lead to high estimates of chloride concentrations and that in actuality the concentrations would be lower than the ones predicted. With no knowledge of the probably errors, we have to accept this statement at face value (although the assumptions may lead to higher predictions). However, this is an engineering rather than a mathematical consideration.

The above facts lead to the question as to why this methodology was used when more applicable techniques were available for this type of investigation.

It would appear that experts in estuarine hydro-dynamics should have been consulted and physical (Water-way Experimental Station) and mathematical models (DECS-III) used in determining the salt water concentrations at various locations in the estuary under different ranges of antecedent flows at Trenton.

In any event, because of the considerable uncertainties stated, the findings of the consultants should be tested and validated using other techniques or the decision related to the need for salinity control should be based on previous studies made by DRBC and EPA (then FWPCA).

The Water Department's concern over the analysis of sea-water intrusion presented in the URS/Madigan-Praeger report is shared by many recognized experts. At a July 1975 meeting, experts from MIT, Princeton, Johns Hopkins, the Corps of Engineers, and the U. S. Geological Survey were unanimous in their criticism of this aspect of the report. Dr. Harleman of MIT, who performed calculations using the statistical equations contained in the report, stated that he was unable,"using the equations contained in the report, to produce the conditions observed in the river during the most severe drought year, 1964."

Further indication of a lack of confidence in the consultant's analysis of salinity is New Jersey's recent request to the Delaware River Basin Commission that a study of the possibility of salinity intrusion in the Camden well fields be undertaken by the Commission. New Jersey has pledged $60,000 toward this study, the the Federal Government, which financed the Madigan-Praeger report, has offered $17,900.

It would appear imperative that any decision on the deauthorization of TILP be delayed until the results of these salinity studies are available and have been evaluated. As I have shown, the construction of Tocks Island Reservoir is of critical importance to the welfare of the lower Delaware Basin. If Tocks Island Reservoir is deauthorized, alternative solutions must be found to meet the predicted water resources needs of the area.

The Madigan-Praeger report presents alternatives for water supply; however, the report is deficient in that no analysis is made of the political and environmental acceptability of these alternatives. I feel that if such a determination were made, these alternatives would be found unacceptable.

I would like to point out that the Delaware River does not yet have a shortage of water resources. It has a shortage of storage facilities. The basin should be constructing Tocks Island or its equivalent to store water when it is abundant, without letting it waste to sea, and making it available when needed (low flow augmentation).

In view that there are no viable plans or alternatives for meeting the future demands of the Delaware River Basin, considering drought periods, I feel that the Trenton-Camden- Philadelphia-Wilmington region is a critical water deficient area and should be given emphasis in the Northeastern United States Water Supply Study (NEWS). I believe our urban-industrial complex has water problems that are no less critical than the three metropolitan areas currently under study by NEWS. Certainly we hope the NEWS Study will correct and adequately cover our critical problems that in part justified the Congressional authorization of the NEWS Study.

Until viable alternatives are resolved that are technically, politically, and economically supported and justified, Tocks Island Reservoir should not be deauthorized. The Delaware Basin needs multi-purpose impoundments to provide for flood-loss reduction, water supply, recreation, electric power generation, water quality improvement, and conservation of fish and wildlife. All of these purposes are important now and will continue to be in the future for the City of Philadelphia as well as the social and industrial community from Trenton to Wilmington along the Delaware Estuary.

Action should be taken now to safeguard the Delaware Basin during water shortage periods. We cannot wait until the next drought is upon us to be galvanized into action.

It is unfortunate that the merits of Tocks Island have been obscured by so-called environmental issues to the degree that political and social polarization has raised the issue of deauthorization of this important project. Tocks Island is essential for the human environment in this basin. It is important that a social triage is not inadvertantly committed which would exclude the citizens of the basin from their just realization and share of the gross national product of these United States and the maintenance of their welfare, environment, and economy.

In view of all of the above, the City of Philadelphia categorically is against the deauthorization of Tocks Island Reservoir Project.

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philadelphia

CITY OF PHILADELPHIA

CARMEN F. GUARINO
COMMISSIONER

WATER DEPARTMENT
1180 MUNICIPAL SERVICES BUILDING
PHILADELPHIA, PA 19107

August 11, 1976

Honorable Mike Gravel, Chairman
Subcommittee on Water Resources
Committee on Public Works
Room 4204, New Senate Office Bldg.
Washington, DC 20510

Dear Senator Gravel:

At the public hearing held July 23, 1976 on S. 3106, a bill proposed to destroy the Tocks Island multi-purpose project for the mainstem of the Delaware River, the Acting Chairman requested the City of Philadelphia to furnish the Subcommittee with information as to what Philadelphia has done in contemplation of this reservoir, either in expenditures or plans for future water, as well as other related information. (T.R. 110,112)

We provide this information below:

I. In contemplation of this reservoir, the City of Philadelphia abandoned commitment to its plan for upstream impoundment and diversion of mainstem waters to metropolitan Philadelphia.

In doing so the City of Philadelphia undertook a $25,000,000 rebuilding and upgrading of its Torresdale Water Treatment Plant, which intakes on the Delaware River at Philadelphia. Since completion of the upgrading of the works, the City has spent over $17,000,000 to maintain this facility. This was

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done in reliance on the augmented firm flow past Philadelphia which was to be provided by the mainstem impoundment initially designated as the Wallpack Bend Reservoir and which subsequently had as its substitute the Tocks Island Lake Project. Having done so, due to population and other development of the upstream area, it is now impossible for Philadelphia to revert to its original plan for an upland water source.

II. In contemplation of Tocks Island Reservoir Project, the City of Philadelphia invested $415 million in pollution abatement works predicated on a minimum assured sustained flow of 3000 cfs at Trenton to be provided by the Tocks Island Dam.

This 3000 cfs flow can be assured only by Tocks Island in light of diversions out of basin and predicted future depletive water use. This assured flow, we point out, is not a substitute for pollution abatement control works.

This level of flow, 3000 cfs, was approved by the Federal Water Pollution Control Administration and then the Environmental Protection Agency and the Delaware River Basin Commission and the Commonwealth of Pennsylvania unanimously as the minimum assured river flow required for the efficient operation of this $415 million pollution abatement investment by the City of Philadelphia.

Without this flow of 3000 cfs, which can only be provided by Tocks Island, the City of Philadelphia must increase its expenditure on pollution abatement works to an estimate of about $1.5 billion in pollution abatement

works. This is so as to insure a water quality in the mainstem compared to that provided by our $415 million investment as assured by a minimum sustained flow of 3000 cfs.

In addition, of course, as we explained when we were before you on July 23, 1976, this base flow of 3000 cfs is a critical factor for cost-effective pollution abatement for the entire estuary.

Apropos of this inordinate additional expenditure the City of Philadelphia must face, absent the assured flow provided by Tocks Island, is the fact that it would only cost $2-4 million to prevent eutrophication of Tocks Island Lake as estimated by an impartial consultant, Madigan/Praeger. This possible eutrophication appears to be a major factor for a decision against this man-made lake by the State of New York. Even if the State of New York's estimate of $30-40 million to conform to the applicable water standards for the Upper Delaware Basin (this sum would include the full cost of required municipal pollution abatement) was used, the contrast between that amount and the additional pollution abatement cost to the City, absent Tocks Island assured flow, is dramatic. To give meaning to the size of the pollution abatement investment currently committed by the City in anticipation of Tocks Island, one should know that the City's present costs exceed the entire amount estimated for the clean-up of the Delaware River from Trenton to Liston Point (a 90 mile reach of the river on each of its banks) as documented in the "Delaware Estuary Comprehensive Study Report" by the Federal Water Pollution Control Administration.

III. Because Tocks Island assured flow past Philadelphia's water intake on the Delaware is not yet available, the City was forced to purchase laboratory boats equipped with instruments at a cost of about $160,000 and spend over $3,000,000 to date for a monitoring program to ascertain the treatability and suitability of the water supply for potable, commercial and industrial use.

Absent Tocks' flow, in view of pending EPA standards for sodium, the City must make provisions for potable water for its customers vulnerable to sodium levels above those prescribed by the American Heart Association.

During the hearing before the Subcommittee, several seriously misleading statements were made by a witness concerning our salinity intrusion problem. It was stated that during the drought of the 1960's, the 250 milligram per liter isochlor (i.e. a sea salt constituent) did not reach Philadelphia's water intake at Torresdale. This is true, but not relevant. the Water Quality Standards of the Delaware River Basin Commission specify a much lower maximum of 50 mg/l (not 250 mg/l) of chlorides at the Torresdale Water Intake. This chloride concentration standard of 50 mg/l corresponds to the upper limit of sodium recommended by the American Heart Association for potable water by patients with heart disease and other ailments, and would be essential for kidney disease, edema, ascites, toxemia of pregnancy, liver diseases, allergies and others. The sodium concentration at Torresdale has exceeded this upper limit in the past at Torresdale, not just during the drought of the 1960's. Tocks Island is needed to prevent this limit from being exceeded.

Another misleading statement by that witness was that Tocks Island should not be completed because it would allow diversion of water from the basin. This is but a half truth. Diversions to New York City are being made and will be continued irrespective of Tocks Island. With respect to trans-basin diversion, Tocks Island is necessary only for legal continuance of New Jersey's uncompensated 100 million gallon per day trans-basin diversion to northeastern New Jersey. Similarly, releases from a storage impoundment such as Tocks Island are required to compensate for any New Jersey diversion beyond the 100 million gallon per day diversion conditionally permitted by the 1954 Supreme Decree.

IV. Absent Tocks Island, the City of Philadelphia must pay more for its municipal energy supply.

The Delaware River Basin Commission has established the policy that in absence of the Tocks Island Project, the Basin's electric utilities will be required to provide less cost-effective single-purpose impoundments to meet their water needs to supply the Basin community with needed energy. It is obvious that deauthorization of Tocks Island and the consequent construction of the single-purpose impoundments will increase electric rates and thereby increase Philadelphia's municipal energy bill, as well as those of its citizens.

Mr. Chairman and Members of the Subcommittee, there is a very important conclusionary point that we must leave with you. We urge you to give it your attention.

It is well established and incontrovertable that the firm yield of the Delaware River Basin water systems is very substantially less than what it was thought to be at the time of the Supreme Court Decree of 1954, allocating this river's waters among the States which must depend on it.

The drought of the 1960's demonstrates conclusively that New York in fact cannot divert the Upper Basin's waters to the many millions of New Yorkers who rely on it; and at the same time maintain the Supreme Court Decree minimum release of the Upper Basin waters to the mainstem for the downstream states that depend on it. Also, the fact is that were New York to do so, as the Superme Court Decree provides that it must, New York would be able to divert but 563 million gallons per day of its claimed 800 million gallon per day contingency. It should be noted that New York City has not requested deauthorization of Tocks Island Reservoir Project.

In the event of a recurrence of this drought of record, as recur it will--it happened only ten years ago, we know as we write you that New York again will reduce very substantially its required releases to the mainstem and New York will subordinate the downstream states' need for what Justice Oliver Wendell Holmes called "This necessity of our life" to New York's physical power to cut-off this flow for the benefit of New Yorkers alone.

It is our prayer that New York will not again, as it did during that drought, cut-off its releases to the mainstem entirely. And when we face this one fact, we are told by some before this Subcommittee, if you destroy

this essential impoundment, that the likelihood of this drought recurring is mathematically remote. And there are assorted mathematical formulae by which statisticians tell us the 1960's drought will not recur for another 500 years, or 400 years, or 200 years, or 100 years, depending on the mathematician's formula; and one condition that we must emphasize between such a mathematician and ourselves is that unlike us, most of them do not live in the Delaware River Basin. None of them endured the disaster of the five years drought of the 60's and none of them are responsible, as we are, for the health, welfare, and the domestic and economic security of some 4 million people in the metropolitan Philadelphia area.

So when we consider their hypothetical suggestion that this drought will not recur shortly, I, unlike they, do not have the luxury of simply refining or reforming mathematical formulae to suit changing conditions. Because of this difference, as municipal officers responsible for the water supply and wastewater disposal for two million people, we ask you, we urge you, to reaffirm your own original action in this Subcommittee in authorizing the moving forward of this great multi-purpose water resource impoundment on which the City of Philadelphia is now entirely dependent.

I believe there is being submitted for your record on S. 3106 a copy of a legal memorandum discussing the obligation of the State of New Jersey to support construction of this authorized mainstem impoundment by virtue of its legal succession, that mainstem impoundment prescribed by the Supreme

Court Decree of 1954, a condition of New Jersey's continuing diversion of up to 100 mgd from the mainstem. I respectively suggest that you ponder the point of that memorandum.

In conclusion, I respectfully request that you reject this Bill S. 3106 that seeks to destroy the project which would make possible the fulfillment of the U. S. Supreme Court compromise for the allocation and sharing of this mainstem's water by the several states dependent upon it.

Yours truly,

Carmen F. Guarino

CARMEN F. GUARINO
Water Commissioner

[Whereupon, at 1 p.m., the subcommittee adjourned, to reconvene at 10 a.m., Monday, July 26, 1976.]

TOCKS ISLAND DEAUTHORIZATION

MONDAY, JULY 26, 1976

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

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

Present: Senators Randolph and Gravel.

OPENING REMARKS OF HON. MIKE GRAVEL, U.S. SENATOR FROM THE STATE OF MAINE

Senator GRAVEL. This morning the Subcommittee on Water Resources holds the second and final day of hearings on S. 3106, a bill to deauthorize the Tocks Island project.

On Friday we heard testimony from Members of the House and Senate, the Army Corps of Engineers, the National Park Service, and representatives of affected States. Today we will hear from State and local governments and from public witnesses.

It is my understanding that a great many people requested an opportunity to appear in the course of this hearing. Most of these requests were denied. I would like to take a minute to explain why.

The Senate leadership has imposed severe constraints on committee meetings for the remainder of this Congress. It was only with great difficulty that we were able to obtain permission to hold 2 days of hearings on Tocks Island. With the large number of congressional, Federal, and State witnesses wishing to appear, other witnesses, of necessity, had to be curtailed.

The public witnesses appearing today were chosen from a long list of applicants. They were chosen after consultation with the staffs of Senators of the affected States. It was felt that those chosen best represented the views of the greatest number of people and organizations.

I have asked, and I ask again now, that all other persons wishing their views to be incorporated into this hearing file a written statement for the record. The hearing record will be extended until August 15.

Our first witness this morning is Mr. Michael Johnson, member of the Pennsylvania Public Utilities Commission.

Mr. Johnson?

The next witness is Thomas Kean, minority leader, New Jersey General Assembly.

Mr. Kean?

Next is Commissioner Nancy Shukaitis, Four-County Task Force, East Stroudsburg, Pa.

STATEMENT OF COMMISSIONER NANCY SHUKAITIS, FOUR-COUNTY TASK FORCE, EAST STROUDSBURG, PA.

Ms. SHUKAITIS. Good morning, Senator and members of the committee, staff, and those in attendance. My name is Nancy Shukaitis. I am commissioner of Monroe County, Pa. My board has authorized me to speak in support of Senate 3106, legislation to terminate the authorization for the Tocks Island project, providing also for the relocation of U.S. 209 in Monroe and Pike Counties.

I am also authorized to speak for the Four-County Task Force on the Tocks Island project, comprised of the counties of Pike and Monroe, Pa.; Sussex and Warren, N.J., each county's land and residents directly affected by the project under review. Our task force voted unanimously on March 12, 1976, in support of this legislation.

The four-county area represents over 200,000 residents. County referendums in two of the counties and several local polls have each consistently resulted in a 2-to-1 vote against the dam, and about the same ratio in favor of a park without a dam.

There has been no need to take a vote on U.S. 209 in Monroe and Pike Counties inasmuch as the toll of lives lost and injuries sustained has been mounting with each passing year, despite more and more measures instituted to reduce the casualties.

What makes this 28-mile link of highway so important as compared with highway needs elsewhere in the Nation? There are three major factors. One, it is a direct link between two relatively new interstate highways, I–84 and I–80. I have attached a map for your benefit so you can envision this highway.

As of 1974 records, the daily traffic volume was well over 12,000 vehicles, a large portion of which are 16-wheel tractor-trailers hauling essential commodities to distribution centers north and south. In the summer Sunday peak traffic reached 1,870 vehicles per hour. This, on a narrow two-lane highway winding along the bottom of the westerly escarpment of the river valley, through villages and with many access and turnoff points. These convoys of diesels and other 8-foot-wide implements, which require another extra foot for side mirrors, fill the lanes in breadth and bumper-to-bumper from I–84 and U.S. 6 near Milford, Pa., to the Marshalls Creek Interchange in Monroe County where I–80 is met.

In the summer of 1974 Sunday peak traffic reached 1,870 vehicles per hour, but that number has steadily increased each year. The Madigan-Praeger study forecasts a 5-percent annual traffic growth rate through 1980, or reaching 16,081 vehicles daily instead of 12,600.

The design of the Interstate Highway System has channeled this traffic directly into this highway and unfortunately failed to anticipate the bottleneck that would be caused by the heavy volume of traffic flowing between the two interstates.

The second factor that makes this 28-mile portion of 209 different than any other portion of highway in the United States is its alinement with the project which it parallels throughout its entire length,

the Delaware Water Gap National Recreation Area. The creation of this Federal park in 1965, along with the 1962 authorization for the dam, has stimulated extensive land development, particularly in the second home industry and in tourism, which is the region's primary industry.

In addition to the traffic of sightseers touring local natural and historic attractions, the Federal projects have generated national publicity for several years, attracting annual waves of visitors. This 50-mile-long scenic and unspoiled area is located only a 2-hour drive from approximately 30 million people. What other Federal project can make that statement while inviting those visitors to a two-lane highway underdesigned for its present load? And many of those visitors have been killed.

Schoolbuses must travel U.S. 209. Two children have been killed in the last 2 years, both tragedies related directly to tractor-trailer incidents. The annual toll varies, but it has reached 46 deaths with over 200 injuries, all in this 28-mile stretch. Residents and out-of-staters alike have ended up in either the intensive care unit or the morgue.

I have attached letters from our County Planning Commission and Safety Council showing some of their efforts. These are just examples, of course. The files are extensive.

The request for and initiation of a reconstructed four-lane divided highway with limited access, connecting Interstates 84 and 80 is crucial to the health, safety, and welfare of the people locally, regionally and nationally, certainly more so than that of a reservoir construction.

The planning commission has urged that this highway should have highest priority and that "it should be constructed in its entirety at one time rather than in time-phased sections." Of course, the reason for that being that timed-phased construction merely places additional burdens on the unimproved remaining sections and increases the accident and death rate.

The present roadway would not be wasted. It would serve very appropriately as a scenic drive for beneficial access to the park itself and for local traffic.

No time should be lost in reconstructing a new U.S. 209. No funds already allocated for this purpose should be withheld. Each year of postponement adds to the toll of human lives lost and hundreds injured, despite our efforts to reduce this, and many measures have been taken.

At the time of the signing of $6.6 million relocation moneys into law, this relocation project was part of the existing Tocks Island authorization, which has existed since 1962 and which is the main reason why the Commonwealth of Pennsylvania has not moved to do more than road maintenance. Since this bill will undoubtedly require several months before final action and, given the associated extreme problems outlined heretofore, it would be unreasonable to discontinue or delay those preliminary steps underway leading to a four-lane safe highway. Those moneys allocated are needed for finalizing the environmental impact statement, completing the design which is now about 80 percent complete, and for acquisition and

start of construction. If the statutes require that the corps cannot relocate a road unless they are building a dam, it appears that this bill's provision for the Secretary of Interior to relocate U.S. 209 could be accomplished through subcontracting with the Army Corps, or by whatever means is feasible in order to get on with the reconstruction project.

There is no reason to expect that road relocation should be treated differently than other of the corps responsibilities under the authorization of Tocks, which has been ongoing, such as site preparation, demolition of structures and so forth.

I will skip down now to address the project, the reservoir itself. We emphasize 209 first because there is some feeling that this does not belong in the same piece of legislation. We are concerned about the loss of funding that has been accomplished under the existing legislation and that it is a necessary project which has been prescribed.

It is respectfully submitted to this subcommittee that the Tocks Island Reservoir project should be terminated. We refer in the preliminary pages about the loss of lives on the tributaries in the 1955 freak flood where two hurricanes back to back caused an unusual deluge which, of course, caused the area to be labeled a disaster area. No lives were lost on the Delaware River in the 1955 flood.

As briefly as possible, the four purposes to be served by the Tocks Island Dam project are as follows:

Flood control—I would point out that since 1955 three of New York's major reservoirs were closed and constructed, this water being used to serve New York City with half of its water supply. This represents a substantial amount of water that never comes down the Delaware River at all, and this has to cause a difference in the volume flow of the Delaware River. And the effects can be seen.

In addition, several of the small impoundments under Public Law 566 or dry dams that were recommended by the Army Corps after the 1955 flood have been constructed, particularly in Wayne, Pike, and Monroe Counties, Pa. In addition, the larger reservoirs that come under corps authority, the Beltzville, the Francis Walter, and other, have been completed. With the closing of each successive dam, lake, pool, there is a decrease in the amount of water available, particularly in a storm. The Delaware River has not overflowed its banks since 1955.

The proposal under discussion is to prevent the relatively rare or freak flooding of 10,000 acres of downstream flood plain by permanently flooding 12,000 acres north of Tocks Island. Even this would be unreliable. There would be no protection against concentrated storms such as hurricanes. Hurricane Agnes in 1972 dropped most of its rainfall downsteam of large dams on the Susquehanna. It has not yet recovered from this disaster. The same year at Rapid City, S. Dak., 261 people were killed in a flood only 14 miles downstream of a flood control dam.

If it is thought provoking to estimate what damage would have occurred in the Delaware River Valley had the Susquehanna River flood of 1972 occurred instead on the Delaware, then let us also consider a moment the impact of the Teton Dam break had it occurred on the Delaware. The geology of the valley at Tocks Island leaves something to be desired when contemplating a three-fifths mile-wide

and three-fifths-mile-long mountain of earth and rock 160 feet high built on a foundation of shale and limestone and glacial till. The 1969 transcripts of the House Subcommittee on Public Works Appropriations contain a lengthy report of the staff investigation made during 1968 of the Tocks Island Dam project, including the geology.

The staff's analysis disclosed that an additional $14.8 million was due to foundation problems, but they had learned from Corps officials that the damsite had been "an ancient lake bed which included some of the poorest conditions as far as a foundation was concerned," and that "it was necessary to move the dam location 3,000 feet downstream because of the unfavorable foundation conditions discovered." It should also be of interest that the configuration of the embankment was changed from a steep-sloped to a shallow-sloped embankment, "certain glacial deposits of unsuitable materials must be removed and replaced with suitable material to develop a foundation of sufficient strength to support the embankment." And we are talking about excavating to 400 feet down in removing this poor geology. And "the outlet works were moved to the landward side of the spillway as the most economical location and to insure the integrity of the total dam structure."

We have a copy of this report, which could be made available to the committee.

General Koisch discussed on page 1147 of the report, "having some difficulties with the fault zone." Of particular importance at the bottom of the same page is the general's response to Congressman Whitten's request that the subcommittee be provided with examples of where dams have been constructed in the past under similar geological conditions.

I have included at the bottom of that page a direct quote and complete quote that was provided for the record by the Corps of Engineers. And if you will read that, you will see that not one of the examples is of a dam of the kind described at Tocks Island; therefore, none of the examples apply. For example, a levee cannot be compared with a rock dam. The pressures certainly are not the same.

We can only say that the Tocks Island Reservoir would contain more than three times the volume of water in the Teton Dam and that the population south of the Tocks Island Dam is a major population.

Even if the bad geology is replaced, as the general promised, the surrounding geology of the Pennsylvania and New Jersey mountainsides must be faced. At the Teton Dam, fissures found in an area near the abutment were not filled and may have been related to the dam's collapse. The drillers at the Tocks Island damsite reported many cracks, crevices, caverns, and silty formations that crumbled when they were drilling.

Before any decision is made to go ahead with the Tocks Island Dam, should that decision ever be made, it is crucial that a thorough investigation be made of the damsite geology and its supporting walls of the valley and their relationship to the future weight and pressures from such a dam.

Those of us familiar with the area have a responsibility to speak up about this matter, surely before such a construction takes place, not after. The citizens' organization known as the Delaware Valley

Conservation Association had included the poor geology in a class action filed in district court at Scranton in 1966. This case went to the Supreme Court in 1968 but was dismissed due to Federal sovereignty. The case never received a hearing and, therefore, this issue has never been fully explored through the public means.

Other flood control measures have been the implementation of flood plain regulations in New Jersey and in parts of Pennsylvania. The Delaware River Basin Commission has held hearings on basinwide flood plain regulations. Several communities in Pennsylvania have adopted Federal flood insurance and the flood plain usage embodied therein. Buildings destroyed in the 1955 flood for the most part have not been replaced in the same location. Flood proofing has been instituted in many localities.

WATER SUPPLY

Tocks would have represented an expensive insurance policy for droughts—over $700 million. In fact, the growth it would promulgate by a promise of more water and more power would have consumed any reserve supplies for drought emergencies.

There are cost effective and environmentally sound alternatives for drought intervals. One, high quality water from deep wells for emergency use and as a viable alternative at much lower cost than from large dams. The U.S. Geological Survey shows the volume of water throughout the basin area.

Second, increased use of water metering.

Reforestation and land cover programs to enhance water retention and water recharge areas.

Substitution of water-conserving processes on all levels. Processes using less water or recycled water have proven feasible for industry.

Madigan-Praeger states clearly that the chances of saltwater intrusion into the Philadelphia water supply are small. Should it be necessary, the intakes can be moved upstream either temporarily or permanently at minimum cost.

Exporting water out of the basin needs reexamination. The service area of the Delaware Basin is as large as the basin itself and contains more than twice as many residents, 7 million inbasin residents versus 19 million people in the service area. The syndrome of more water/more power/more people must be addressed and basin limitations identified and acknowledged. Basin populations have an obligation to work toward desalination of seawater. The inland populations are landlocked and prohibited from such an alternative.

In any event, the high social and environmental costs of overcrowding exceed the structural costs of all the basin projects put together, yet there is no plan to evaluate these costs nor the fact that the direction we are headed is suicidal if not weighted with limitations.

The Delaware, by the way, has a volume flow of one-twentieth of that of the Hudson River.

The electric power will be addressed by others, but the water-based recreation, I feel, should be mentioned. The greatest population centers of the basin are virtually surrounded by water. There is no shortage of water-based recreation with all of our rivers, streams, lakes, parks, reservoirs, and so forth. And a plan is underway to open the New York

reservoirs to additional recreation. One of the principal contradictions of recreation at Tocks is the flooding of 12,000 acres of land that is of tremendous public use. Swimming, boating, canoeing, fishing, small powerboats, historic and prehistoric resources, an agricultural oasis, rich in early American history would be inundated for a few who could afford large powerboats. The cost effectiveness of recreation in the river valley, called Minisink, is obvious without Tocks Island Dam.

POLLUTION ABATEMENT

The dependence upon reservoir releases to dilute pollution is inefficient, wasteful and, expensive; particularly when the natural regime of a river does this more effectively.

I would like to refer lastly to local impact. Several studies commissioned by the Delaware River Basin Commission and the corps have confirmed that excess eutrophication will take place in the reservoir, lowering the quality of water downstream with unfilterable chemical products of decomposition and grossly impairing the recreational use of the reservoir and the fisheries. It is submitted that any project that is environmentally unfeasible is economically unfeasible.

The dam would reduce the DWGNRA by at least 10,000 acres. In September 1971 a National Park Service study reported that the recreational potential, quality and variety would be greater without the dam than with it. At best we are talking about a 50-year life for this project, a high cost for a short-term multiuse project.

The proposed dam and reservoir would undoubtedly become a high-density recreational area with all the problems associated with such a project, if we look elsewhere in the Nation's parks. Local services could not conceivably meet this need. Madigan-Praeger reports that dropping the dam, deauthorizing the dam, would cut the attendance in the recreation area to about one-half. This would then be a number which the local municipalities more likely could cope with.

The publication, the Minisink, which has been distributed to your clerk for members of the subcommittee, was prepared by the Four County Task Force and illustrates what the river valley consists of. I hope that the members will have time to read it. The valley was an important route during the French and Indian War and during the Revolutionary War.

The best thing that could be done with the Tocks Island Dam would be for Congress to deauthorize it in the name of progress so we could get on with the alternatives. To postpone action on this will merely be to drag out and cause indecision over what supposedly were crucial issues. Complete the flood control measures off river, obtain water from ground supplies and other sources at hand close to the population requesting it, let ERDA govern the development of wiser technologies that do not consume our natural resources until the last river is dried up, and transfer the acquired lands from the Army Corps to the Interior. It could be governed as the Potomac National River with major attention to a cultural-educational-recreational outdoor experience. In this way we minimize adverse impact on the river valley and the river and maximize the visitor's enjoyment of an American treasure.

Thank you, and I am sorry if I took too long.

Senator GRAVEL. Thank you very much.

[Commissioner Shukaitis' complete statement follows:

STATEMENT OF COMMISSIONER NANCY SHUKAITIS
MONROE COUNTY, PENNSYLVANIA

before the

SUBCOMMITTEE ON WATER RESOURCES OF THE COMMITTEE ON PUBLIC WORKS
UNITED STATES SENATE, WASHINGTON, D. C.

SUBJECT: S. 3106, LEGISLATION TO TERMINATE THE AUTHORIZATION FOR THE TOCKS ISLAND RESERVOIR PROJECT

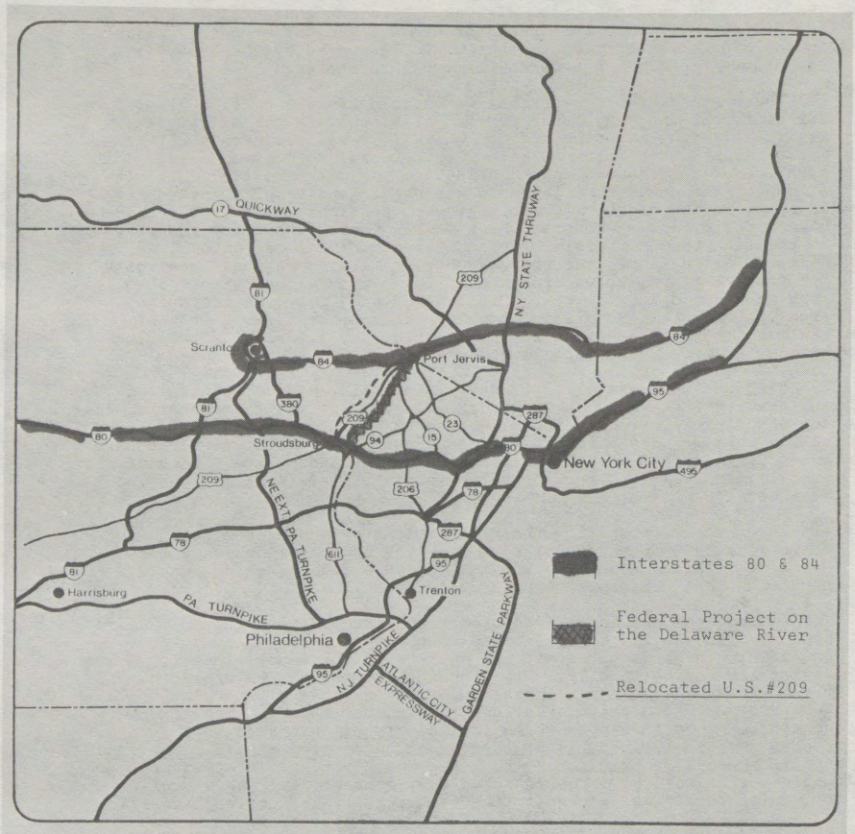
Mr. Chairman and Members of the Subcommittee:

I am Commissioner Nancy Shukaitis of Monroe County, Pennsylvania. My Board has authorized me to speak in support of Senate No. 3106, legislation to terminate the authorization for the Tocks Island Project, providing also for the relocation of U. S. 209 in Monroe and Pike Counties.

Also, I am authorized to speak for the Four-County Task Force on the Tocks Island Project, comprised of the Counties of Pike and Monroe, Pennsylvania; Sussex and Warren, New Jersey, each county's land and residents directly affected by the project under review. Our Task Force voted unanimously on March 12, 1976, in support of this legislation. According to the last census, the four county permanent population is over 200,000 residents. County referendums in two of the counties and several local polls have each consistently resulted in a 2 to 1 vote against the dam and about the same ratio in favor of a park without a dam.

There has been no need to take a vote on U. S. 209 in Monroe and Pike Counties inasmuch as the toll of lives lost and injuries sustained has been mounting with each passing year, despite more and more measures instituted to reduce the casualties.

What makes this 28 mile link of highway so important as compared with highway needs elsewhere in the nation? There are three major factors: (1) it is a direct link between two relatively new Interstate Highways, I. 84 and I. 80 (see attached map). As of 1974 records, the daily traffic volume was well over 12,000 vehicles, a large portion of which are 16 wheel tractor-trailers hauling essential commodities to distribution centers north and south. In the summer, Sunday peak traffic reached 1,870 vehicles per hour. Picture this on a narrow, two-lane highway winding along the bottom of the westerly escarpment of the river valley, through villages and with many access and turn-off points. These convoys of diesels and other 8' wide implements - which require another foot for side mirrors - fill the lanes in breadth and bumper to bumper from I. 84 and U. S. 6 near Milford, Pa., to the Marshalls Creek Interchange of I. 80 both coming and going. In the summer in 1974, Sunday peak traffic reached 1,870 vehicles per hour, but that number has steadily increased each year. The Madigan Praeger study forecasts a 5% annual traffic growth rate through 1980 or reaching 16,081 vehicles daily instead of 12,600.



SCALE IN MILES

N

REGIONAL HIGHWAY NETWORK 1

SOURCE URS/MADIGAN-PRAEGER, INC

LEGEND

EXPRESSWAYS

OTHER MAJOR ROUTES

INTERSTATE HIGHWAY

STATE HIGHWAY

U S HIGHWAY

A COMPREHENSIVE STUDY OF THE

TOCKS ISLAND LAKE PROJECT & ALTERNATIVES

URS / MADIGAN-PRAEGER, INC. & CONKLIN AND ROSSANT

76-797 O - 76 - 9

The design of the Interstate Highway System has channeled this traffic directly into this reach of highway and unfortunately failed to anticipate the bottleneck that would be caused by the heavy volume of traffic flowing between the two Interstates.

(2) The second major factor that makes this 28-mile portion of U. S. 209 different than any other portion of highway in the United States is its alignment with the project which it parallels throughout its entire length, the Delaware Water Gap National Recreation Area. The creation of this federal park in 1965, along with the 1962 authorization for the dam, has stimulated extensive land development in the adjacent region and considerable growth, particularly in the second home industry and in tourism which is the region's primary industry. In addition to the traffic of sightseers touring local natural and historic attractions, the projects have generated national publicity for several years, attracting annual waves of visitors. This 50-mile long scenic and unspoiled area is located only a two hour's drive from approximately 30 million people. What other federal project can make that statement while inviting those visitors to a two-lane highway underdesigned for its present load?

(3) School buses must travel U. S. 209. Two children have been killed in the last 2 years, both tragedies related directly to tractor-trailers. The annual toll varies but has reached 46 deaths with over 200 injuries, all in this 28 mile stretch. Residents and out-of-staters alike have ended up in either the intensive care unit or the morgue. Many of the casualties have been truck drivers, tourists, vacationists, and local residents.

Attached are letters from the Monroe County Planning Commission and Monroe County Safety Council both of which organizations have been doing everything in their power to resolve a totally unacceptable condition that confronts us on a daily basis.

The request for and initiation of a reconstructed four-lane divided highway with limited access, connecting Interstates 84 and 80 is crucial to the health, safety and welfare of the people locally, regionally and nationally. The Planning Commission has urged that this highway should have highest priority and that "it should be constructed in its entirety at one time rather than in time phased sections." They have reasserted that construction phased in time by sections would put additional burdens on unimproved existing sections and increase already high accident and death rates. The present roadway would not be wasted; it would serve very appropriately as a Scenic Drive for beneficial access to the park itself and for local traffic.

NO TIME SHOULD BE LOST IN RECONSTRUCTING A NEW U. S. 209; NO FUNDS ALREADY ALLOCATED FOR THIS PURPOSE SHOULD BE WITHHELD. EACH YEAR OF POSTPONEMENT ADDS TO THE TOLL OF HUMAN LIVES LOST AND HUNDREDS INJURED.

THE MONROE COUNTY PLANNING AND ZONING COMMISSION
612 MONROE STREET
STROUDSBURG, PENNSYLVANIA 18360
Telephone: 424-5100

January 30, 1976

attached to Mr Macmillan's letter to J Delaney 1/30/76

EVIDENCE SUBSTANTIATING A RECLASSIFICATION OF U.S. ROUTE 209

In support of the urgent need for upgrading and relocating U.S. Route 209 to a four lane divided highway from the Bartonsville Interchange to the Interchange of I-84 and U.S. 6 near Milford, Pennsylvania, the Monroe County Planning and Zoning Commission offers the following:

1.) According to the recently completed Tocks Island Review Study, the 1974 traffic volume of U. S. 209 north of Route 402 was as follows:

Avg. Annual Daily Traffic	Summer Sunday Avg. Peak/Hr.	Level of Service
12,000	1,870	F

The "level of service" concept as defined by the Highway Research Board is:
A & B - Free, uninterrupted flow; desirable for rural conditions.
C - Limited freedom to manuver; acceptable for rural conditions.
D - Approaching Unstable flow.
E - Unstable flow.
F - Forced flow, congestion.

Conclusions drawn by the Research Board suggest that a "level of service" below "C" is an unacceptable condition for rural highways. Thus, in 1974 U.S. Route 209 was functioning below the recommended minimum standard "level of service."

2.) Traffic growth rate for Monroe County as forecasted in the Tocks Island Review Study is expected to be 5% yearly through 1980. This 5% yearly growth rate is reflected in recorded traffic volumes at the Delaware Water Gap tool bridge from 1962 - 1974.

Estimated Traffic Volumes for U.S. 209 North of Rt. 402

1975	1976	1977	1978	1979	1980
12,600	13,230	13,892	14,587	15,315	16,081

The above traffic volumes include the present annual visitation of about 800,000 to the Delaware Water Gap National Recreation Area. The least intensive alternative Delaware National Recreation Area development scheme, yet analyzed, projects an estimated annual visitation of 1,652,000/Year.

3.) 1974 U.S. 209 (from Exit 52 off I-80 North to County line) Accident Report for Monroe County compiled from data released by the Bureau of Accident Analysis, Pennsylvania Department of Transportation.

SUMMARY (1974)

Total Accidents - 247
Total Fatalities - 3
Total Injured - 134 (54.2%)
Total Amount of Property Damage - $1,547,400.00
Total Tractor Trailers Involved - 53 (22.2%)
Total Accidents at Intersections - 77 (32.7%)

Inspection of the above statistics point out the disasterous consequences of mixing interstate-through-traffic, and local short-trip and delivery traffic on an antiquated underdesigned highway, such as U.S. Route 209.

JE COUNTY SAFETY COUNCIL
ty First and Always" Court House, Stroudsburg, Pa. 18360
Phone: (717) 421-6110

July 12, 1976

Dear

May we recall the special meeting held in the County Court House last October in our search to find ways and means to have Route #209 relieved of the high speed Interstate Tractor Trailer Truck traffic using it as a short-cut between I-84 and I - 80.

The inadequacy of a narrow two lane road to safely accommodate this type and density of traffic, is evidenced by the severe Accident Frequency and severity over a long period of time and hardly needs any further explanation since the conditions are well known in political circles and in the Departments of Transportation in Washington, D. C. and in Harrisburg, Penna.

Insofar as we know, at this time, there is no concrete evidence of any action taken which would relieve Route 209 of the Interstate Truck traffic. At the last meeting of the "Safety Council" the urgency was again stressed for re-examination of all possible solutions on both a temporary and a permanent basis. In this endeavor we seek your assistance and guidance on any suggestions you feel would be helpful to lessen the exposure to accidents on Route 209 i.e.

A. Scenic Drive - The feasibility of declaring Route 209 a scenic drive for light traffic only and thereby eliminate the Interstate Trucks. Could the Federal or State Departments of Transportation be instrumental in pursuing this course? If not what agency should we contact?

B. Alternate Route - Since the basic cause of the dangers existing on Route 209 clearly, is the result of the massive Interstate traffic flowing to and from I - 84 and I - 80, the construction of an alternate 40 mile limited access route would qualify as

"essential to completion of a unified and connected Interstate system"

The fact the present difficulties were not anticipated in the design of the Interstate System is, indeed unfortunate, but should in no wey lessen responsibility of the Federal Government to recognize the seriousness of the problem and to take the initiative in an all out assistance to correct the problem.

Specifically, we are interested to learn if under the substitution process for mass transportation there has been any mileage relinquished by another

,E COUNTY SAFETY COUNCIL
...y First and Always"
Court House, Stroudsburg, Pa. 18360
Phone: (717) 421-6110

July 12, 1976

state which Pennsylvania could request? Should a 40 mile stretch become available would a special appropriation be necessary to obtain funds for construction?

Temporary basis - Have any further engineering studies been made made to determine if additional Safety improvements can be made in the road?

I.E.- full pavement of shoulders, signal lights, general lighting in certain areas, reduced speed zones, warning signs, etc.

Conclusion - We shall be grateful for your most recent word on this subject and for any assistance or direction to help clearup a problem long overdue, also, if you feel a further meeting with our Council would be helpful.

Respectfully submitted,

James B. Clancy,
Chairman, Highway Safety Division

JBC/wsr

THE RELOCATION OF THIS RELATIVELY SHORT PIECE OF HIGHWAY IS IN KEEPING WITH SEVERAL FEDERALLY-SPONSORED PROJECTS OR PROGRAMS; I. E.:

1. At the time of the signing of $6.6 million relocation monies into law, this relocation project was part of the existing Tocks Island authorization which has existed since 1962 and which is the main reason why the Commonwealth of Pennsylvania has not moved to do more than road maintenance. Since S. 3106 will undoubtedly require several months before final action and, given the associated extreme problems outlined heretofore, it would be unreasonable to discontinue or delay those preliminary steps under way leading to a four-lane safe highway. Those monies authorized are needed for finalizing the EIStatement, completing the design which is now about 80% complete, and for acquisition and start of construction. If the statutes require that the Corps cannot relocate a road unless they are building a dam, it appears that the S. 3106 provision for the Secretary of Interior to relocate U. S. 209 could be accomplished through subcontracting with the Army Corps to do this, or by whatever means is feasible in order to get on with the reconstruction project.

   There is no reason to expect that road relocation should be treated differently than other of the Corps responsibilities under the existing Tocks authorization which has been ongoing, such as site preparation, demolition of structures, etc.

2. U. S. 209 relocation is in keeping with the Interstate Highway Act because it is "essential to completion of a unified and connected Interstate System."

3. It is consistent with the extension of the Federal Aid-Highway Program and Trust Fund which includes "completion of gaps in the national system," and which Program allows funds from a withdrawn interstate to be used for other federal-aid highways as well as for other interstates.

4. It is in keeping with the Senate-proposed safer roads program aimed at improving safety of roads not in the federal-aid system.

5. It is in keeping with the spirit of the Appalachian Development Program.

6. The Northeast Corridor Study substantiates the need for an "inland spinal route" for a major north-south connecting corridor in this region and would serve traffic some of which heretofore was anticipated for the Foothills Freeway (N.J.) the need for which new highway would be precluded by a new U. S. 209 between I. 84 and I.80.

7. Since Monroe County is part of a federally designated Standard Metropolitan Statistical Area, its eligibility for and requirement for safe and adequate highways has been elevated. U. S. 209 qualifies to be reclassified as a Priority Primary level highway which designation, because of its interstate and regional importance and usage, should be funded by the federal and state governments, and apart from the County's 12-year allocation of $9.5 million for all its highway needs.

8. Reconstruction of U. S. 209 is in the spirit of the new $3.95 BILLION PUBLIC WORKS CONSTRUCTION AND JOBS BILL.

TOCKS ISLAND RESERVOIR PROJECT, PENNSYLVANIA, NEW JERSEY AND NEW YORK, AS PART OF THE DELAWARE RIVER BASIN PROJECT PURSUANT TO SECTION 203 OF THE FLOOD CONTROL ACT OF 1962.

It is respectfully submitted to this Subcommittee on Water Resources that the Tocks Island Reservoir Project should be terminated.

The idea for the dam was first conceived by the electric utilities but apparently the cost for them to bear was too excessive. In the immediate post-WWII era, petitions were circulated locally protesting damming the Delaware near Shawnee, Pennsylvania. The flood of 1955 caused by two hurricane rainstorms back to back, wreaked havoc upon the Upper Basin in particular, where 100 lives were lost on mountain tributaries, 74 of those lives lost in Monroe County on the Brodhead and Pocono Creeks. While no lives were lost on the river itself, tremendous property damage occurred on the tributaries and on the river banks. Because of the provision for the federal government to examine and assist "disaster areas", and after some order had been restored in the flooded area, the Corps of Engineers conducted a study. The result was to recommend 39 small tributary dams under P. L. 566, 25 of these to be located in Monroe County, and 19 structural projects of Corps' type size and scope, the largest of which was to be the Tocks Island Dam, the only dam on the Delaware River mainstream.

The federal government would pay 100% of the flood protection space of the reservoir, while the states shared in the costs of water supply. Recreation was an added impetus and the generation of over-the-dam power with pumped storage added later were all by-products to be accomplished through this major project, originally initiated for flood control. The events that developed after January 1964 when the Delaware River Basin Commission first scheduled the Tocks Island Dam for hearing on cycling this project into its "active" list, these events are all history.

As briefly as possible, the four purposes to be served by the Tocks Island Dam Project and our responses, are as follows:-

1. Flood Control. Since 1955, New York's three major reservoirs (that serve New York City with one-half its water supply) were completed and represent a substantial amount of water that never comes down the Delaware River since it is piped out of the Upper Delaware branches and into the Hudson River Basin. New York is empowered by Supreme Court Decree to withdraw up to 800 mgd as long as its releases meet a given requirement at the river gauge station at Montague. In addition, several of the 39 small impoundments and/or dry dams recommended by the Army Corps have been constructed, particularly in Wayne, Pike and Monroe Counties, Pennsylvania. The Beltzville Dam and Francis Walter Dams in Carbon County have been completed as have the Edgar Jadwin and Prompton Dams in Wayne County. Many others have been added as well as many private and commercial lakes and pools. With the closing of each additional dam or impoundment, whatever its size, these together combine to decrease the available water during a storm. The Delaware River has not overflowed its banks since 1955.

The proposal under discussion is to prevent the relatively rare or "freak flooding" of 10,000 acres of downstream flood plain by permanently flooding 12,000 acres north of Tocks Island. The protection, at best, would be unreliable. There would be no protection against concentrated storms such as hurricanes that dump their water downstream of the dam. Hurricane Agnes in 1972 dropped most of its rainfall downstream of large dams on the Susquehanna. It has not yet recovered from this disaster. The same year at Rapid City, South Dakota, 261 people were killed in a flood only 14 miles downstream of a flood control dam!

If it is thought-provoking to estimate what damage would have occurred in the Delaware River Valley had the Susquehanna River flood of 1972 occurred instead on the Delaware, then let us also consider a moment the impact of the Teton Dam break had it occurred on the Delaware. The geology of the valley at Tocks Island leaves something to be desired when contemplating a 3/5 mile wide and 3/5 mile long mountain of earth and rock 160' high built upon a foundation of shale and limestone and glacial till. The 1969 transcripts of the House Subcommittee on Public Works Appropriations contain a lengthy report of the Staff Investigation made during 1968 of the Tocks Island Dam Project.

The staff's analysis disclosed that an additional $14.8 million was due to "foundation problems" but they had learned from Corps officials that the damsite had been an "ancient lake bed"which included some of the poorest conditions as far as a foundation was concerned" and that "it was necessary to move the dam location 3,000 feet downstream because of the unfavorable foundation conditions discovered..." It should also be of interest that"(1) the configuration of the embankment was changed from a steep-sloped to a shallow-sloped embankment, (2) certain glacial deposits of unsuitable materials must be removed and replaced with suitable material to develop a foundation of sufficient strength to support the embankment, (3) the outlet works were moved to the landward side of the spillway as the most economical location and to insure the integrity of the total dam structure..."

General Koisch discussed, on page 1147 of the report, "having some difficulties with the fault zone". Of particular importance at the bottom of the same page is the General's response to Congressman Whitten's request that the Subcommittee be provided with examples of "where dams have been constructed in the past under similar geological conditions."

Provided for the record were the following examples:

> "The Corps of Engineers has built levees and made excavations in the Connecticut River Valley, on and in foundations as weak as that at Tocks Island. These include the levees at Hartford, East Hartford, Springfield and Northampton and the excavation at Northampton. It has also built a low part of North Hartland Dam in Vermont and made a large excavation for the Snell Lock on the St. Lawrence River, both of which involved weak materials of a similar nature. These structures were not as high, however, as the Tocks Island project. The Corps of Engineers is also familiar with structures such as the Gatun Dam in the Canal Zone which is built on a silty clay sediment which, although somewhat different in character from the Tocks Island foundation, does have a very weak strength."

The examples, needless to say, do not appear to apply inasmuch as each one given is for a different kind of project. A levee and a high dam are not comparable; the pressure exacted does not compare.

We can only say that the Tocks Island Reservoir would contain more than THREE TIMES THE VOLUME OF WATER IN THE TETON DAM and that the population south of the Tocks Island Dam is a MAJOR POPULATION.

We do not even have a flood-alert system for other than National Weather Service reported rainfall! The damage estimates in the Idaho disaster have reached $1.17 billion, representing 4000 homes destroyed, 250 businesses, 3500 farm buildings, 100,000 acres of farmland, and the most irreplaceable of all, 11 lives lost.

Even if the "bad geology is replaced" as the General promised, the surrounding geology of the Pennsylvania and New Jersey mountainsides must be acknowledged. At the Teton Dam, fissures found in an area near the abutment were not filled and may have been related to the dam's collapse. The drillers at the Tocks Island Dam Site reported many cracks, crevices, caverns, and silty formations that crumbled when drilled.

Before any decision is made to go ahead with the Tocks Island Dam, should that decision ever be made, it is crucial that a thorough investigation be made of the damsite geology and its supporting walls of the valley and their relationship to the future weight and pressures from such a dam.

Those of us familiar with the area have a responsibility to speak up about this matter, surely before such a construction takes place, not after. The citizens' organization known as the Delaware Valley Conservation Association had included the poor geology in a class action filed in District Court at Scranton in 1966, but the case never received a hearing. Therefore, this issue has never been fully explored.

(The writer's statement of June 11, 1976, will be forwarded upon request.)

Other flood control measures have been the implementation of flood plain regulations in New Jersey and in parts of Pennsylvania. The Delaware River Basin Commission has held hearings on basin-wide flood plain regulations. Several communicities in Pennsylvania have adopted Federal Flood Insurance and the flood plain usage embodied therein. Buildings destroyed in the 1955 flood for the most part have not been replaced in the same location. Flood proofing has been instituted in many localities.

2. Water Supply. Tocks would have represented an expensive insurance policy for droughts...over $700 million. In fact, the growth it would promulgate by a promise of more water and more power would have consumed any reserve supplies for drought emergencies.

There are cost-effective and environmentally sound alternatves for drought intervals:

1. High quality water from deep wells for emergency use and as a viable alternative at much lower cost than from large dams. See U. S. Geological Survey of availability of water for deep wells.

2. Increased use of water metering.

3. Reforestation and land cover programs to enhance water-retention and water recharge areas.

4. Substitution of water-conserving processes on all levels. Processes using less water or recycled water have proven feasible for industry.

Madigan-Praeger states clearly that the chances of salt-water intrusion into the Philadelphia water supply are small. Should it be necessary, the intakes can be moved upstream either temporarily or permanently at minimum cost. An auxiliary intake could be placed now for such emergency.

Exporting water out of the Basin needs reexamination. *The service area of the Delaware Basin is as large as the Basin itself and contains more than twice as many residents. The syndrone of more water/more power/more people must be addressed and Basin limitations identified and acknowledged. Basin populations have an obligation to work toward desalinization of sea water. The inland populations are landlocked and prohibited from such an alternative.

In any event, the high social and environmental costs of overcrowding exceed the structural costs of all the Basin projects put together, yet there is no plan to evaluate these costs nor the fact that the direction we are headed is suicidal if not weighted with limitations.

3. Electric Power. Electric power cooling is wasteful in that it evaporates fresh river water to cool power plants. There is plenty of salt water in the lower Basin for that purpose. In fact, some power companies are planning new plants on salt water or using dry cooling. Energy efficiency in building construction must be mandated and energy conservation programs instituted. New technologies must not be shut out merely because of the presence of old technologies.

4. Water-based recreation. The greatest population centers of the Basin are virtually surrounded by water. There is no shortage of water-based recreation with all of our rivers, streams, lakes, parks, reservoirs, etc. And a plan is under way to open the New York reservoirs to additional recreation. One of the principal contradictions of recreation at Tocks is the flooding of 12,000 acres of land that is of tremendous public use. Swimming, boating, canoeing, fishing, small power boats, historic and prehistoric resources, an agricultural oasis, rich in early American history would be inundated for a few who could afford large power boats. The cost-effectiveness of recreation in the river valley called Minisink is obvious WITHOUT TOCKS ISLAND DAM.

5. Pollution Abatement. The dependence upon reservoir releases to dilute pollution is inefficient, wasteful, and expensive particularly when the natural regime of a river does this more effectively. Some laws prohibit artificial dilution of pollution. The most economical means is to change a process so it results in less pollutants. This technology is steadily improving but the greatest deterrent is not in the new technology but in finding incentives for improving established technologies...in meeting the costs to make the transition.

*7 million in-Basin residents vs. 19 million people in the "service area."

6. Local Impact. Several studies commissioned by the DRBC and the Corps have confirmed that excess euthrophication will take place in the reservoir, lowering the quality of water downstream with unfilterable chemical products of decomposition, and grossly impairing the recreational use of the reservoir, and the fisheries.

The dam would reduce the DWGNRA by at least 10,000 acres and, in September 1971, a National Park Service Study reported that the recreational potential, quality and variety would be greater without the dam than with it.

The dam would interfere with the winter and spring run-off purging action of the river which would adversely affect the quality of the water and aquatic life downstream. This has been documented by the Pennsylvania Fish Commission in two successive administrations, as well as certainty that upstream fish navigation of, particularly the shad, will be drastically hampered.

The reservoir's assurance of allowing minimum flow during drought periods through draw-down guarantees ugly, disease-breeding mudflats according to many authorities of record.

The proposed dam and reservoir would undoubtedly become a high density recreational area with all the problems associated with such a project if we look elsewhere in the nation's parks. Local services could not conceivably meet this need. M/P reports dropping dam cuts attendance in half.

The publication, The Minisink, made available to the Subcommittee members by the Four County Task Force on Tocks Island Dam Project, describes and illustrates what the river valley consists of. Human occupation of the area has been placed at more than 10,000 years before Christ, at the end of the last glacier, according to carbon testing performed by Smithsonian Institute at a site near Shawnee on the Pennsylvania side of the river valley. Countless other sites have been found. The valley was an important route during the French and Indian War and during the Revolutionary War when George Washington's Crossing of the Delaware at Trenton was augmented by additional supplies delivered down the Old Mine Road, "the road behind the mountain." Much more research is needed to develop the true history of our founders who were well known in this inland part of the thirteen original colonies. A heritage in archaeology, history, nature, agriculture, will be destroyed if the dam is constructed for the great majority of the events and sites are on the valley floor. All of the agricultural land and Indian burial grounds are along the river.

The best thing that could be done with the Tocks Island Dam would be for Congress to deauthorize it in the name of progress. Complete the flood control measures off-river, obtain water from ground supplies, let ERDA govern the development of wiser technologies that do not consume our natural resources until the last river is dried up, and transfer the acquired lands from the Army Corps to the Interior Department for a National Minisink Historic Park or the equivalent; it could be governed as the Potomac National River with major attention to a cultural-educational-recreational outdoor experience. In this way, we will minimize adverse impact on the river valley and the river, and maximize the visitor's enjoyment of an American treasure.

July 26, 1976

Senator GRAVEL. Our next witness is Mr. Cooke.
Mr. Arthur Sypek?

STATEMENT OF ARTHUR R. SYPEK, SR., COUNTY EXECUTIVE, MERCER COUNTY, N.J.

Mr. SYPEK. Senator Gravel, members of the committee, ladies and gentlemen, I am Arthur R. Sypek, Sr., county executive of Mercer County, N.J. Mercer County is an urban county containing 13 municipalities, including the city of Trenton, the capital of New Jersey, and is located adjacent to the Delaware River midway in the developing corridor between the metropolitan areas of New York and Philadelphia. This location also places it in the center of growing megalopolis projected to develop between Boston and Washington, D.C.

Mercer County has a diverse economic base which is expected to increase dramatically as the Interstate Highway System, including I–95, I–295 and I–195, all in Mercer County, is completed, and planned utility systems are constructed. It is because of this anticipated population growth and economic development that Mercer County is very much concerned with the future of the Tocks Island project. Our existing and future growth, as well as that of the entire region, will create increased demands for recreation, water supply, flood protection, and energy. It is for these reasons that Mercer County strongly advocates the Tocks Island project and is opposed to its deauthorization at this time.

In the area of recreation, it must be remembered that the developing American way of life is providing increased leisure time for our population and will, therefore, produce increased pressures on governmental agencies to provide facilities for recreational pursuits. The Delaware Water Gap National Recreation Area, particularly with the lake, will provide the Northeast, which is the most densely populated area of the country, with a major recreational resource. It may be anticipated that the demand for recreation will substantially exceed even the capacities provided by this project, particularly when the future growth of the region is considered.

Therefore, the proposal to deauthorize the dam and lake construction aspects of this project, which increases greatly the recreation, attractiveness, and capacity of the area, is obviously unresponsive to the needs of the people. In addition, the limitations imposed on the area will increase greatly the recreational costs of the people by requiring a major segment of our population to travel greater distances to find comparable recreational opportunities or pay for similar facilities provided by other levels of government—if they are possible to be provided.

Water supply is a major resource required to maintain the economic life of an area. The Delaware River, currently a major source of water for Mercer County, serves approximately two-thirds of our population, or 200,000 people, and there is no question that the need for additional supplies will continue. A drought such as occurred in the early sixties would be at this time disastrous. It is, therefore, necessary to be assured of augmented Delaware River flows in order to assure Mercer County and the region with this essential life-sustaining commodity.

Flood protection, the third major benefit afforded by the Tocks Island Dam and Lake project, is also of great concern to Mercer County. We remember well the devastation the flood of August of 1955 brought, with the loss of lives and property, to our county and have experienced in recent years similar threats imposed by Hurricane Agnes in 1972 and the actual flooding conditions by Hurricane Doria in 1971. And, of course, we had a devastating flood just last year. Therefore, obviously the need for the Tocks Island Dam as a flood control measure continues.

In the area of energy needs the future problems are even more acute, considering the potential effects of future population and economic growth. Of particular concern is the current slowdown in the development of nuclear power generated facilities for apparent valid reasons. This at a time when our region is experiencing increased demands for electrical energy to meet our ever-increasing standard of living. We live in a time when our region has experienced numerous blackouts and brownouts for various reasons, and in a time when the public is demanding a practically unlimited supply of energy. We are not suggesting that our regional policy should be one of completely unlimited supply; however, when to the current demands is added the future energy needs of our developing region, the need for additional electrical power is undebatable.

We understand the rejection of the Tocks Island Dam project by the Delaware River Basin Commission a year ago and believe it to be a vote to study other technically viable alternatives and not a rejection of the need for a facility to provide the benefits which may be attributed to the Tocks Island Dam project. We further believe that a review of the alternatives will prove them to be less desirable in all aspects including environmental and ecological concerns, and will again substantiate the need for the Tocks Island Dam as currently proposed.

We, therefore, strongly urge that S. 3106, the legislation to terminate the authorization of the Tocks Island project not be approved.

I would simply like to add, sir, that I had been elected to office in 1959, first as a freeholder for 16 years, including in that time director of my board for 9. With the change in county government in Mercer County, I was fortunate to be elected county executive last year. I can remember in 1962 when the Tocks Island project was conceived and the flood of 1955 at that time was fresh in our minds with the loss of life and property. And every time floods occur now, we look toward a solution of flood control. We were hoping at that time—and here it is 1976—some control would come about by the Tocks Island project. To date there is none.

We certainly hope, we who have been in government so many years, that flood control and source of water supply and energy and, of course, recreation might be considered and provided through this project of Tocks Island.

Thank you.

Senator GRAVEL. Thank you very much.

I understand Michael Johnson is now in the room.

Mr. Johnson.

STATEMENT OF MICHAEL JOHNSON, MEMBER, PUBLIC UTILITIES COMMISSION, STATE OF PENNSYLVANIA

Mr. JOHNSON. Senator, I would like to apologize for not being here at 10 a.m. when you started. Senator Schweiker told me I was scheduled to speak at about 11 a.m., so I apologize to you.

Senator GRAVEL. That is all right.

Mr. JOHNSON. My name is Michael Johnson. I am a commissioner of the Pennsylvania Public Utility Commission. I have a brief statement which I would like to read. The staff already has copies of this statement.

The concern of a State regulatory agency, which has jurisdiction over the services rendered by investor-owned utilities, in such a matter as the Tocks Island Lake project and its possible deauthorization may not immediately be apparent. But these concerns are there; they are pertinent and relative. They are, indeed, urgent concerns.

The Tocks Island Lake project is a people-oriented plan. It seeks to enhance the quality of life for people. It seeks to safeguard their welfare, their safety, and opportunity for advancement. And in so doing, it takes care to safeguard the natural state of the environment and, with an assist from the people, protects this environment against the natural disasters of flood, erosion, loss of human and animal life, the destruction of property, and the threat to the viability of the same natural resources.

The Public Utility Commission of Pennsylvania and, indeed, all other States, is a device created by our society to protect the economic viability of investor-owned public utilities and to make the continuity of their services available, reliable, and affordable. At the same time this device seeks to protect the consumers, small and large, against unwarranted charges which could seriously erode the economic resources of the people.

I will not repeat the advantages of this forward-looking plan—enhanced employment, flood control, the husbanding of water resources for the most densely populated geographical sector of its size in the Nation, and the creation of recreational opportunities for masses of people, and so forth.

Let me rather address the areas of my concern as a member of a public utility commission.

The Tocks Island project makes possible hydroelectric generation of a most significant quality and quantity. Combining the publicly owned and investor-owned potentials, this project could make possible a capacity of more than 1.3 million kilowatt at least for 8 hours a day, the year around.

This is at least equal to the ultimate potential of either of the two nuclear-powered generating units being positioned by a consortium of electric companies and electric cooperatives in northeastern Pennsylvania, each of which has a potential of 1 million kilowatts.

If we concern ourselves only with the potential of the investor-owned pump storage facility which the Tocks Island project would make possible, we are talking about a realistic capacity of 1.3 million kilowatts. The annual yield could approximate 3.8 billion kilowatt hours of electrical energy.

Electrical energy is the cleanest energy available. Of all the substances or fuels making possible such electric power, water alone is clean, pure, and inexpensive.

In any event, the pump storage power generators would be underground and hidden from view, thus eliminating possible offense to the eye of the beholder. Another virtue would be the flexibility of returning the water pumped from the lake directly into the lake or into the downstream of the Delaware River, depending upon the needs of the basin itself.

The cost to the public, which will bear that burden, whatever happens, is again a significant factor.

The two new "nukes" being built in Pennsylvania's northeast cost $1 billion apiece, and the capacity of each is approximately 1 billion kilowatts.

The pump storage plan would in today's market cost approximately $200 million—I understand that this is a figure that was used some 2 or 3 years ago and it might be somewhat higher today—while its potential capacity is 1.3 million kilowatts.

Thus, in today's market, the "nukes" make possible a rated capacity costing approximately $1,000 per megawatt, while the Tocks Island plan makes available a capacity costing $250 per megawatt.

Looking ahead, we must sadly observe that the cost of nuclear fuel is escalating at a pace which in 10 years could increase the cost of such power beyond our greatest fears.

In contrast, the increased costs of hydroelectric generation will be, in the main, predictably small, unless insanely unreasonable charges for the use of water are imposed by governmental agencies, a condition which we regard as not only unlikely but socially and politically counterproductive.

The hydroelectric power made possible by this project would help keep rates charged by the PJM power pool—the principal distributor for such power—in line and perhaps even affect economies for all users, large and small. The most significant result would be to lower the levels of peak demand capacity, levels that continue to climb and make necessary additions to rated capacity, all of which wind up as higher charges to the users of electrical energy, be they industries or households.

The costs, including cost of money, will be borne by the taxpayers. However, in the instance of the Tocks Island project itself, these costs will not include the usurious interest charges, since the people are using their own money.

The economies afforded by the investor-owned pump storage facility are in the nature of one-quarter the cost of equivalent "nuke" generated power. And the economic nature of hydroelectric power will become more marked and the differences greater with each passing year.

So much for electric power. Our concerns as statewide regulators include the availability of clean water and its cost to the public. Thousands upon thousands of Pennsylvanians rely for their water upon water utilities which in turn rely upon the Delaware as their major or exclusive supply source. The Tocks Island project will make more readily available and reliable the waters of the Delaware. The

costs to the customers of such water utilities mount as alternate sources, other than the Delaware River, are sought and developed. But as great a problem as that of steadily increasing water rates is the frightening prospect of the scarcity of water supply. The effects upon all of the resources of the people—natural, economic and industrial—threaten not only the viability of the local economy, but the health and welfare of the people.

The threat of floods which can ravage the countryside or the threat of diminishing water supplies equally menace the viability of our sewage disposal systems, publicly or privately owned. In this regard such problems become the legitimate concern of public utility regulators. The Tocks Island project brings with it an assurance that our sewage systems remain viable, available, and reliable.

I might interpolate that last Friday, although he was scheduled to speak, Commissilner Guarino of Philadelphia had to remain in that city, trying to defend an increase in rates approximating 50 percent for both water and sewage, all caused by these things that I am talking about.

As regulators, we join with all segments of our society in emphasizing the need to plan for tomorrow as we provide for today.

This project embodies all the best elements of planning for the orderly and healthy growth of our communities.

But plans are meaningless if they do not focus on the needs of the people for today and tomorrow.

The best hopes of ecologists and environmentalists are without value if they should result in the decline of human life, if they result in abundant floralia incapable of sustaining human life.

Whatever the decision in this instance, the need for greater electrical power will continue unabated, even if we eliminate wasteful usage and reorder lifestyles and industrial practices in the utilization of electric power.

To meet that need, we will have to increase kilowatt capacities. This may mean more "nukes," greater pollution and, who knows, greater hazards to life and limb. This will mean an erosion of the economic resources of people, a blunting of their aspirations and hopes for a better way of life.

To say "no" to the Tocks Island project is to say "no" to a plan—a good plan—and to thrust upon a great sector of our population doubt and fears for tomorrow.

We appreciate the desire of some to leave unmolested the character and soul of the Delaware River. We can do so, in the main, with a useful diversion of a relatively small portion of this 300-mile-long river. And like the mariners of old who, by raising their masts, harnessed the wind, we here can harness the forces of nature to provide for the people without, I say, basically altering the soul of that river.

To paraphrase the ancient dictum, "What shall it profit man if he saves the soul of the river and in so doing loses his life?"

I support the Governor of Pennsylvania, Hon. Milton J. Shapp, in urging the defeat of Senate bill 3106. Do not, for the people's sake, deauthorize the Tocks Island Lake project.

Senator, I thank you on behalf of the Public Utility Commission of Pennsylvania.

Senator GRAVEL. Thank you very much, Mr. Johnson.

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Mr. JOHNSON. Come visit us in Pennsylvania. We have a beautiful State if you will give us some water from the Delaware.

Senator GRAVEL. Maybe we will give you some from Alaska. We have a lot up there.

Is Mr. Thomas Kean, the minority leader from New Jersey, in the room? Mr. Thomas Cooke? Commissioner G. Roger Bowers?

STATEMENT OF COMMISSIONER G. ROGER BOWERS, BUCKS COUNTY, PA.

Mr. BOWERS. Chairman Gravel, honorable members of the Subcommittee on Water Resources, staff; ladies and gentlemen: Good morning, I am G. Roger Bowers, commissioner of the county of Bucks, Pa. I am here today representing the position of the board of commissioners.

The entire eastern and southern boundaries of Bucks County front on the Delaware River. Many of our 450,000-plus citizens live in towns along the river, and are well aware of its potential for flooding. Many more of our residents and most of our major industries use the Delaware River as a source of water. The quantity of water available to Bucks County users and the quality of the Delaware River water is of the utmost concern to us.

The effect of the Tocks Island Reservoir project on our water supply has concerned us for several years. We have gained experience in dealing with the pros and cons of multipurpose dams through our own involvement with an extensive watershed program within our county. Last year, for example, we actively participated in the congressional study of the Tocks Island project, formally requesting Governor Shapp to form a Pennsylvania citizens advisory board similar to New Jersey and New York's to allow for local counties and municipalities affected by the project to participate in the study. Our request was never answered.

However our planning commission staff attended all of the joint hearings, analyzed the reports and so forth and the county commissioners requested and got a hearing in our county at which the chairman of the board of commissioners testified on our concern regarding water quantity and quality and the lack of specific data on the level of flood protection to be provided by the Tocks Island Dam and that already being provided by the dams built on the Delaware River tributaries since 1955. We also questioned the heavy emphasis placed on the recreational aspects of the dam at the expense of the other purposes of the project.

Last year, after careful consideration of the effects of the proposed project on the whole basin, as well as on Bucks County, we came out strongly against the construction of the Tocks Island Dam.

I am here today to support the deauthorization of that project. We believe that the project was conceived in an era when multipurpose dams were considered the only answer to flood damage reduction. We now see that the conflicting uses needed to justify the costs not only provide an inadequate solution to the flooding problems but create other related problems within the basin. In our case, these problems include a decrease in the amount of water available to Bucks

County users, the increased cost of that water, and more importantly the reduced quality of that water. These problems are especially crucial to municipal and industrial water users and dischargers located on the estuary of the river. I am submitting a statement for the pollution control group of lower Bucks County which deals in detail with these problems. It also deals with our view of the faults in the systems analysis program applied to this project.

This project should be considered as part of a basinwide system. In that context, we are opposed to the out-of-basin transfer of water, particularly to those areas which have their own undeveloped water resources. We do not believe that users within the Delaware basin should pay for a project that will benefit users outside the basin. We also believe that the secondary costs to be borne by basin users, as a result of the decrease in quantity and quality of water is disproportionate to those benefits received.

The protection from flooding provided by a large dam far upstream from our damage centers is also of questionable value to us. In fact, we believe that the dam may create a false sense of security and encourage development of existing floodplains. Bucks County already has a viable floodplain management program employing both structural and nonstructural methods of protection. We believe that development of a similar program for the whole basin would be of more value than relying on a single structure with multipurpose restrictions. We further believe that adequate recreational opportunities will be provided under the proposed legislation and that individual States have the opportunity and responsibility to develop additional water-based recreational facilities. This legislation will provide for the transfer of land acquired in the Tocks Island project from the Secretary of the Army to the Secretary of the Interior. This land can still be developed for recreational purposes, and in our opinion in a much better fashion along a free-flowing river rather than along the shore of a large, manmade lake. In addition, the 12,000 acres of prime, river bottomland proposed to be flooded by the dam will remain available for additional recreational purposes. The only persons who would be able to use the large lake created by the Tocks Island Dam, in addition to the fishermen, canoeists, sailboaters, motorboatists, et cetera presently using the river, would be the owners of luxury-type craft, and not the overwhelming majority of persons who could enjoy the unflooded 12,000 acres of additional recreational space. As a person who has loved this area since I was a boy I can tell you that the upper Delaware River valley is a unique natural heritage of the people of this country duplicated nowhere in our great Nation. Nor for that matter, duplicated anywhere in the entire world. Gentlemen, don't turn this into an immense, open cesspool.

In addition, we seriously question the benefit of power generation as now planned for the project and suggest that alternatives be considered on a basinwide approach. We also wish to have the issue of consumptive use of water for power generation investigated in light of the need for conservation of our water resources.

Bucks County insists that it participate in the development of alternatives to this project. We also insist that these alternatives be developed in a manner consistent with the direction given by Congress

and the President's Council on Environmental Quality—particularly in regard to a thorough investigation of nonstructural methods of flood damage reduction. We also want the whole issue of out-of-basin transfer of water versus riparian rights to Delaware River water, aired and resolved in an equitable manner. I refer this committee to the Water Resources Act of 1974 and the committee report thereon which details alternative methods of flood control.

Gentlemen, Bucks County is not in favor of postponement of the deauthorization of the Tocks Island project. We believe that Congress after years of study, and the expenditure of public money for that study, should act to follow the recommendation of the lead agency, the Corps of Engineers, for full deauthorization. Therefore, we recommend adoption of Senate bill 3106. Only a firm deauthorization will direct the State and Federal agencies toward the development of the necessary alternatives to this project.

Gentlemen, I thank you for this opportunity to have spoken. I would like to refer you to the attached statement from one of our local groups, for a more technical analysis of our concerns. I refer to the Pollution Control Group of Lower Bucks County. Gretchen Leahy, one of the members of the Neshaminy Watershed Resources Authority of Bucks County was here last Friday to make this presentation, but could not get on the agenda. Unfortunately, she cannot be present today because of a meeting of the aforesaid authority. I endorse her statement.

Gentlemen, I was present in the Tocks Island area at the time of the flood of 1955 and again when the dam was first proposed in the early sixties, and I remember the many signs in that area stating "The Tocks Island Dam is Toxic." We look to you to protect us from this toxicity. Deauthorize the Tocks Island project.

Thank you for your kind attention.

[The statement of the Pollution Control Group of Lower Bucks County follows:]

SUBCOMMITTEE ON WATER RESOURCES
Honorable Mike Gravel, Chairman

TOCKS ISLAND DAM DEAUTHORIZATION
United States Senate Hearing

Statement of:
Pollution Control Group of Lower Bucks County

July 26, 1976
Page 1.

Chairman Gravel, Honorable Members of the Subcommittee on Water Resources and Staff, Ladies and Gentlemen:

My name is Gretchen Leahy, and I am Secretary/Coordinator of the Pollution Control Group of Lower Bucks County. We thank the Senators for this opportunity to testify on the deauthorization of the Tocks Island project (S3106). Our testimony today covers four principal points: (1) faulty systems analyses of the Tocks project; (2) the devisiveness of cqntinued authorization; (3) obsolete institutional analyses; and (4) our recommendations to correct the above.

Background: The Pollution Control Group

The Pollution Control Group of Lower Bucks County, to our knowledge, is unique in the Delaware Basin. Unlike other volunteer organizations, we are strictly a technical group covering an entire zone of the Delaware River system. Our members are the water quality professionals whose daily responsibility is to provide and protect the major municipal and industrial water supplies in the densely populated, highly developed, metropolitan area situated between Philadelphia and Trenton, N.J., along the headwaters of the Delaware Estuary. Together, we serve approximately 200,000 people with water supply and pollution abatement, and employ between 7,000 and 8,000 people.

We have for many years, under the name of the Pollution Control Group, offered technical testimonies on the manner in which Delaware Basin water resources planning and management will affect the water quality of the upper estuary, known as Zone 2 of the Delaware system. We have been pleased to see much of our past testimony substantiated by several recent government studies, including the 1974-75 URS/Madigan-Praeger Congressionally-authorized study. We are concerned, however,

over the apparent tendency of others to discount our testimonies because we are remote from the project's site, and also over the difficulty that others experience in putting the project in its proper perspective as one part in a system, rather than as a whole complete unto itself. Too frequently, the erroneous conclusion is drawn that the estuarine impact of the Tocks project will minor rather than major. When the Delaware system is viewed in its entirety, it is clear that the key to the Tocks project lies not in the local region, but in the estuary.

We will be happy to transmit technical exhibits from past testimonies to substantiate our statement here today to your Staff prior to the July 31 closing of the Hearing Record. Our purpose today is to summarize, without the technical explanations, how the Lower Bucks part of the system is affected by the shortcomings of the project's analyses.

FINDINGS:

FAULTY Systems Analyses

In short, Gentlemen, the systems analysis of the Tocks project in the URS/Madigan-Praeger Study is faulty in two ways:

(1) The study is faulty because only a part of the Delaware system was examined, not the whole system. Only the seven-county region was examined; omitted were the huge increased costs to estuarine water suppliers, users and dischargers which we have testified we believe will run into the tens, perhaps hundreds of millions of dollars. (It is important to remember that there are many parameters that determine water quality, and that the absence of a salinity problem does not mean the absence of a water quality problem.)

(2) The second fallacy in the Tocks systems analysis is that while the benefits of the Tocks project accrue to one system, the costs (both environmental and economic) are assessed against a different system.

Obviously, for the project to be economically justifiable, benefits must exceed costs when balanced within the SAME system. As presently proposed, major benefits of the Tocks project accrue to the Hudson Basin system; the costs, deteriorated water quality and dollars, are borne by the Delaware system. Our Lower Bucks County communities who are riparians have testified for years that we do not benefit from projects that remove our water from us.

The Devisiveness of Continued Authorization

Despite the formal action of the Delaware River Basin Commission and the Corps of Engineers following the conclusion of the URS/Madigan-Praeger study, there has been considerable effort to bring about the project's construction. It seems clear that as long as the project remains authorized, activities to that end will inevitably continue precluding the various interests in the basin working as a team to develop alternatives.

Obsolete Institutional Analysis

Although the purpose of the 1974-75 Congressional review was to obtain the latest scientific and economic analyses available, the institutional analysis was not conducted under the up-dated, then-implemented regulations (Principles and Standards of the U.S. Water Resources Council). Instead,the analysis was performed under legislation which had been superceded (Senate Document 97 and Supplement). Had the then-applicable Water Resources Council Regulations been

applied, it appears that the above falicies would not have been permissible.

Recommendations

In the light of the faulty systems analyses of the Tocks project, the devisive effect of continued authorization and the failure to utilize current documents in the institutional analysis, we recommend deauthorization of the Tocks Island Dam and Reservoir project and the transfer of lands from the Department of the Army to the Department of the Interior.

We believe the proposed deauthorization to be a constructive step towards cooperation in developing alternatives. Should future needs of the people in the Delaware Basin indicate that the project should be built, reauthorization under current legislation should assure the project be put in its proper economic and environmental perspective, with full examination of the major part of the system which is presently omitted, Zone 2 of the Delaware Estuary.

We thank you very much for your attention. We will be happy to answer any questions you may have.

Respectfully submitted,

Gretchen V. Leahy

Gretchen V. Leahy

Senator GRAVEL. I notice the chairman has come in. Mr. Chairman, do you have anything to add?

Senator RANDOLPH. I do not, But I do wish to ask a question.

Senator GRAVEL. Mr. Bowers, hold up for a question here.

Mr. BOWERS. Yes, sir.

Senator RANDOLPH. Commissioner Bowers, as I listened to your ardent advocacy of a prompt deauthorization of the project, I recall, even though I was at the hearing earlier today, that Commissioner Johnson advocated that there be a retention of the project. Now, the reason I mention the two witnesses is both are from the Commonwealth of Pennsylvania but you take opposite views.

Mr. BOWERS. Yes, sir. I am from the County of Bucks.

Senator RANDOLPH. I realize that. One is a hunting and fishing paradise. I don't know if it is anymore.

Mr. BOWERS. It still is partially.

Senator RANDOLPH. I am saying that here are two witnesses, Mr. Chairman, from the same State, and one believes in retention and one believes in deauthorization.

I think you understand, Mr. Bowers—and I am making this point for the record—that we are faced with those who take the position you have taken and those who take the position Mr. Johnson has taken. So you realize it will call for the most careful consideration of the members of the Subcommittee on Water Resources and the parent committee. That would necessarily have to include the authorization of the project in 1962 and then again the authorization of the project with modifications in 1970. Were you in the position you now hold in 1970?

Mr. BOWERS. No; I was not. Had I been, I would have taken the same position. I believe the estuary of the lower Delaware depends for its survival as a free-functioning estuary on this dam not being built. I believe it will have an adverse effect on the quality of life along our portion of the Delaware; that is, the portion of Bucks County which runs from, if you are familiar with Pennsylvania, the eastern part all the way down to where the Delaware eventually runs into the bay and out in the ocean. I think it would severely affect that entire region of Pennsylvania, the lower portion of New Jersey and Delaware.

Senator RANDOLPH. I am familiar with the area, very familiar, frankly, with all parts of Pennsylvania.

Mr. BOWERS. I believe you are from West Virginia, are you not?

Senator RANDOLPH. Yes. Are you familiar with West Virginia?

Mr. BOWERS. I know very little about West Virginia.

Senator RANDOLPH. We often say that Pennsylvania calls itself a commonwealth because you have all the money.

Mr. BOWERS. That is better than saying we have all the common people.

Senator RANDOLPH. I point out this situation only to indicate that it is a question that is very mixed from the standpoint of testimony.

Mr. BOWERS. That is correct. But I am here as a representative of one of the large counties which is bordered by the Delaware. We are going to be directly adversely affected, in my opinion, if Tocks Island is built. The question about flood damage reduction and the deaths that resulted in 1955—I had occasion to be in the Delaware area at that time. I saw the results. Most of the loss of lives would not have

been controlled by the construction of the Tocks Island Dam. The great loss of life occurred on the tributaries and below where the Tocks Island Dam is suggested to be built. So the question about flood control I don't think is properly addressed by the building of this massive dam.

I think there are many alternatives to flood control other than the building of the Tocks Island Dam. Smaller dams may be built on the tributaries, and you also may have more protection of flood plains for the natural existing state. Anyone familiar with rivers knows that your cleansing process occurs at the time of storm and your creeks and your rivers are washed clean. The building of this dam is going to prevent this. You are going to have the stagnation.

There are arguments pro and con on that by men more capable of addressing that, and so I won't speak other than to raise that issue.

Senator RANDOLPH. Mr. Bowers, you are correct in saying that the remedies cannot be applied in all instances with the same facilities.

Mr. BOWERS. That is correct.

Senator RANDOLPH. There are parts of West Virginia where, very frankly, a smaller or larger dam would not take care of flash floods.

Mr. BOWERS. That is correct.

Senator RANDOLPH. They move quickly in a matter of minutes. There is no way for an impoundment to affect it. So there are all types of problems that are occasioned by certain types of terrain, which you certainly seem very familiar with.

Thank you, Mr. Chairman.

Senator GRAVEL. Thank you.

Mr. BOWERS. Thank you, sir.

Senator GRAVEL. Is Thomas Kean here? Has he come in yet? Has Mr. Thomas Cooke come in yet?

Our next witness is Mina Hamilton Haefele, president of the Delaware Valley Conservation Association, Stillwater, N.J.

STATEMENT OF BARRY ALLEN, MEMBER, BOARD OF DIRECTORS, DELAWARE VALLEY CONSERVATION ASSOCIATION, STILLWATER. N.J.

Mr. ALLEN. Good morning. My name is Barry Allen. I am a member of the board of directors. Our president, Mina Haefele, was unable to attend the hearing, so I am presenting our testimony in her absence.

The Delaware Valley Conservation Association strongly supports S. 3106. We respectfully urge the Members of Congress to pass legislation to deauthorize promptly and efficiently the Tocks Island Dam.

As long as this 14-year-old controversy, which has cost the taxpayer millions of dollars of studies and restudies, remains unresolved, the initiation and implementation of sound and rational planning for the region is impossible. Economical and feasible nonstructural alternatives for the recognized needs of the area have been identified in the $1 million study mandated by Congress in 1974 and completed in 1975.

In requesting the study Congress expressed a commendable desire to resolve the Tocks controversy once and for all. Now that the study has been completed and three of the four State Governors have voted against the construction of the $700 million project, it would be unconscionable for Congress to drag its feet and prevent deauthorization of what surely must be the most unpopular Army Corps of Engineers project in the country.

It would also be fiscally and politically irresponsible for this committee to attempt to defer Tocks. If the Tocks Island Dam were to be deferred for a number of years and then revived at its 1962 discount rate of 3⅛ percent, it would be an inexcusable imposition on the Federal taxpayer. The 1962 discount rate, already excessively low by 1976 standards, will be an enormous swindle by 1985 or year 2000 standards. Add to the discount rate a price tag that would be far into the billions, and one can understand what an economic disaster deferral would be.

There are interests that claim that the Tocks Dam may be needed in 10, 20, or 25 years. If, indeed, a decade or a quarter-century from now there is a demonstrable need for the Tocks Island Dam, which we doubt seriously, let the project be reauthorized at that time using a new, fiscally sound discount rate, and after full public hearings that are based on new, realistic estimates of construction costs.

It would be unwise, shortsighted policy indeed for decisionmakers in Washington to impose in 1976 a project conceived of in the 1950's and reflecting a technology of the 1930's and 1940's on Americans of the 1980's and 1990's.

There are a few specific aspects of the current legislation which merit comment. One is that we strongly support the procedures suggested for the acquisiton of land. If fairly implemented, these procedures could help to mitigate many injustices which previously have dominated the land acquisition process at the Tocks Island Dam. In particular we would like to endorse the concept that priority be given to acquisition of lands of beneficial owners, not being a corporation, who in the judgment of the Secretary would suffer hardship if acquisition of their lands were delayed.

The definition of "hardship case" is, perhaps, somewhat difficult. However, it is clear that corporations cannot be deemed hardship cases. It is also clear that land which is held for investment purposes and which is not the residence of the owner also cannot be described as a hardship case. But in the past few years, during a period when funding for land acquisition has been strictly limited and when the list of hardship cases has been extensive, often land acquisition at Tocks has continued to favor individuals that were not hardship cases, individuals that, in fact, had or have important political ties to elected or appointed officials.

On July 29, 1975, 2 days before the four Governors' decision on Tocks, a 16.83-acre property owned by George Harper, the New Jersey State auditor and previous New Jersey State senator, was bought by the Army Corps of Engineers for $40,000. This peoperty was unimproved and not the residence of the Harpers. We do not believe that the New Jersey auditor could be considered a hardship case.

Yet at this time a large number of bona fide hardship cases were still awaiting payment for their homes. In fact, many are today still awaiting payment.

We do not think Mr. Charles Carella, a member of the New Jersey Racing Commission, previously an executive secretary to Governor Byrne and previously director of the New Jersey State Lottery, can be described as a hardship case. Yet, on April 26, 1974, a payment of $406,000 was made to the Flatbrook Land Development Co., a company which had received title to the land a mere 10 days before, on April 16, and which had as one of its principals, Mr. Charles Carella.

Aside from the disturbing issue of what such a highly placed official in the New Jersey State government was doing acquiring title to a property only 10 days before its acquisition by the Federal Government, it was also true that at the time a number of bona fide residents in hardship situations in the Tocks Island region were being told that insufficient funding was delaying their payments.

These are just two of countless cases that could be enumerated as demonstrating the necessity for the passage of paragraph 2 in section 3 of this legislation. We would also like to endorse the other provisions in section 3, paragraphs 3, 4, 5, and 6.

Wherever possible, the citizens in this region who have suffered so long the economic hardship and psychological stress of living with the ever-present threat of condemnation and eviction hanging over their heads should be treated with deference and respect. These citizens should be offered humane and fair options for continued tenancy in the park, if they so desire and if they agree to abide by principles of sound land management.

It is easy for officials in Washington to say sweep them all out or get rid of them. But sound management of a park can be balanced by humane treatment of the people in this region who have been bullied and harassed long enough.

There has been considerable debate regarding the inclusion of the provision to relocate road 209 in this legislation. The highway relocation must not be allowed to cloud the decision regarding the deauthorization of the Tocks Island Dam. The Tocks Island Dam must be deauthorized for the reasons outlined in volumes of public hearing testimony on the Madigan-Praeger study, in arguments presented by the Council on Environmental Quality, the Environmental Protection Agency, and by Members of Congress cosponsoring or supporting this legislation.

The 209 issue should not be used as a lever by prodam interests in an underhanded attempt to keep the Tocks Island Dam alive, as part of a planned strategy to delay authorization pending a political climate imagined more favorable to dam construction next year or the year after.

There are some interests pushing for the relocation of 209 who are genuinely concerned by the real safety hazards on this heavily traveled road and anxious to avoid the undesirable bisection of a park by truck traffic. There are, however, other interests apparently anxious to promote the highway relocation so as to make the deauthorization legislation so complicated and controversial as to put the entire bill in jeopardy. It is clear that the two issues are segregatable. The deauthorization bill should not be allowed to die because of an extraneous issue which could be dealt with under separate authorization, if necessary. After all, billions of dollars of highways are authorized every year as a part of the Federal highway system.

A bill to deauthorize one of the most controversial and unpopular Army Corps of Engineers projects in the country should not be sacrificed to provide for the construction of a highway, the necessity of which is, in fact, open to considerable question.

Whereas dozens of highly professional studies have demonstrated the existence of viable and economical alternatives to the Tocks Dam, the proposal to relocate 209 has not been thoroughly evaluated or studied, nor have alternatives to this action been examined. Even the necessary transportation studies on point of origin and point of destination of traffic on the old 209 have not been conducted.

According to the director of the PennDot Bureau of Transportation, Planning Statistics Department, the last point of origin and destination studies were completed in 1963, over 13 years ago. Since that time the completion of I–80 and the near completion of Interstate 81, Interstate 84, have changed radically transportation patterns in the region.

The fact of the matter is that neither the Members of Congress, this committee, the truckers, nor the DVCA can definitively state or exactly enumerate the compelling reasons why 209 must be relocated, since none of the required studies demonstrating the necessity for this highway have been conducted.

If this committee finds itself unable to simultaneously deauthorize the Tocks Island Dam and relocate Route 209, the issues should be segregated once and for all. The wishes of citizens in the four-State region and throughout the country are clear regarding the necessity for the deauthorization of the Tocks Island Dam. Of the two, this issue has the clear priority.

Thank you, Senator.

Senator GRAVEL. Thank you.

[The written statement of the Delaware Valley Conservation Association follows:]

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Testimony of the
Delaware Valley Conservation Association
Before Senate and House Subcommittees on Public Works
Regarding S. 3106 and H14262

The Delaware Valley Conservation Association strongly supports S. 3106 and H14262. We respectfully urge the members of Congress to pass legislation to de-authorize, promptly and efficiently, the Tocks Island Dam.

As long as this 14-year-old controversy, which has cost the taxpayer millions of dollars of studies and re-studies, remains unresolved, the initiation and implementation of sound and rational planning for the region is impossible. Economical and feasible non-structural alternatives for the recognized needs of the area have been identified in the $1 million URS/Madigan-Praeger, Inc. and Conklin and Rossant study mandated by Congress, in 1974 and completed, in 1975. In requesting the study Congress expressed a commendable desire to resolve the Tocks controversy once and for all. Now that the study has been completed, and three of the four State governors have voted against the construction of the $700 million project, it would be unconscionable for Congress to drag its feet and prevent de-authorization of what surely must be the most unpopular Army Corps of Engineers project in the country.

It would also be fiscally and politically irresponsible for this committee to attempt to place the Tocks Island Dam project on the "back burner" of legislation deemed temporarily politically unpalatable but kept alive, "deferred" for future construction. (Such "deferrals" are usually based, not on a systematic estimate of future need, but on the fond hope of dam proponents that dam opponents will become exhausted, scatter, lose interest in the issue or die in the intervening decades.)

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The policy of semi-permanent deferral has been applied elsewhere in the country with projects such as the Cross-Florida Barge Canal which was authorized in 1942 and has been taken on and off the back burner repeatedly during the last 34 years. One particularly pernicious result of this policy is that the Cross-Florida Canal benefit/cost ratio is still being calculated on the basis of a grossly underestimated discount rate of 2-7/8%. Likewise with the Tennessee-Tombigbee Canal, authorized in 1942, but in 1976 still using the preposterously low discount rate of 3-1/2%. When authorized, this project's costs were estimated at $117 million; now the estimated costs are at $1.6 billion--fifteen times the original cost estimate.

If the Tocks Island Dam were likewise to be deferred for a number of years and then revived at its 1962 discount rate of 3-1/8%, it would be an inexcusable imposition on the federal taxpayer. The 1962 discount rate--already excessively low by 1976 standards--will be an enormous swindle by 1985 or year 2000 standards. Add to the discount rate a price tag that would be far into the billions and one can understand what an economic disaster deferral would be.

There are interests that claim that the Tocks Dam may be needed, in ten, twenty, twenty-five years. If indeed, a decade or a quarter century from now there is a demonstratable need for the Tocks Island Dam (which we doubt seriously) let the project be re-authorized, at that time, using a new, fiscally sound discount rate, and after full public hearings that are based on new, realistic estimates of construction costs.

It is clear that the major reason to support deferral is to prevent full public hearings ten years or so from now; to maintain a ridiculously low discount

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rate in order to inflate the economic benefits of the project; and to obviate the necessity for a new environmental impact statement. And yet, when and if this project is ever revived (and it should not be), water resource planning will have changed considerably. Water recycling, metering, leakage control programs, improved ground water management, conjunctive use of surface and ground water, pricing policies keyed to peak demand, sequencing of use, amendments to plumbing codes encouraging water saving fixtures will all over the next decades become an integrated part of water supply and conservation programs. In the light of technological, social and institutional changes and developments, the Tocks Island Dam type of solution will have to be completely re-analyzed.

It would be unwise, short-sighted policy indeed for decisions makers in Washington to impose in 1976 a project conceived of in the 1950's and reflecting a technology of the 1930's and 1940's on Americans of the 1980's and 1990's.

Supposedly, the aftermath of Watergate has brought a new sense of integrity and honesty to Washington, a new responsiveness to the expressed concerns of the public. To opt for deferral instead of de-authorization, would be a call for a return to the old backroom wheeling and dealing type of politics dedicated to the interests of a few vested interests, while neglecting the will of the majority.

We would like to call to your attention a boast made by Congressman Frank Thompson at the Woodrow Wilson School of International Affairs earlier this Spring. The boast was that the Congressman had received a promise from the incoming chairman of the House Subcommittee on Public Works, James Wright, that Congressman Wright would not allow the de-authorization of the Tocks Island Dam, so long as Congressman Thompson was opposed. The boast may have been an empty one but it is typical of the type of politics that--for decades--have pervaded decisions on water resources development in this country.

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There are a few specific aspects of the current legislation which merit comment. One is that we strongly support the procedures suggested for the acquisition of land. If fairly implemented these procedures could help to mitigate many injustices which, previously, have dominated the land acquisition process at the Tocks Island Dam. In particular, we would like to endorse the concept that priority be given to "acquisition of lands of beneficial owners, not being a corporation, who in the judgment of the Secretary would suffer hardship if acquisition of their lands were delayed."

The definition of hardship cases is, perhaps, sometimes difficult; however, it is clear that corporations cannot be deemed hardship cases. It is also clear that land which is held for investment purposes and which is not the residence of the owner also cannot be described as a hardship case. But, in the past few years, during a period when funding for land acquisition has been strictly limited and when the list of hardship cases has been extensive, often land acquisition at Tocks has continued to favor individuals that were not hardship cases, individuals that, in fact, had or have important political ties to elected in appointed officials. On July 29 of 1975 (two days before the 4 Governors' decision on Tocks), a 16.83 acre property owned by George Harper, the New Jersey State Auditor and previous New Jersey State Senator, was bought by the Army Corps of Engineers for $40,000. This property was unimproved and not the residence of the Harpers. We do not believe that the New Jersey Auditor could be considered a hardship case. Yet, at this time, a large number of bona fide hardship cases were still awaiting payment for their homes (and in fact, many are, today, still awaiting payment). We do not think Mr. Charles Carella, a member of the New Jersey Racing Commission, previously an Executive Secretary

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to Governor Byrne and previously director of the New Jersey State Lottery, can be described as a hardship case. Yet, on April 26, 1974 a payment of $406,000 was made to the Flatbrook Land Development Company, a company which had received title to the land a mere ten days before on April 16 and which had as one of its principals Mr. Charles Carella. Aside from the disturbing issue of what such a highly placed official in the N. J. State government was doing acquiring title to a property only ten days before its acquisition by the federal government, it was also true that, at the time, a number of bona fide residents in hardship situations in the Tocks Island region were being told that insufficient funding was delaying payments.

These are just two of countless cases that could be enumerated as demonstrating the necessity for the passage of para. (2) in Section 3 of this legislation. We would also like to endorse the other provisions in Section 3 (3), (4), (5), (6). Wherever possible, the citizens in this region who have suffered so long the economic hardship and psychological stress of living with the ever-present threat of condemnation and eviction hanging over their heads should be treated with deference and respect. These citizens should be offered humane and fair options for continued tenancy in the park, if they so desire and if they agree to abide by principles of sound land management. It is easy for officials in Washington to say "sweep them all out," "get rid of them." But sound management of a park can be balanced by humane treatment of the people in this region who have been bullied and harassed long enough.

There has been considerable debate regarding the inclusion of the provision to relocate 209 in this legislation. The highway relocation must not be allowed to cloud the decision regarding the de-authorization of the Tocks Island Dam.

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The Tocks Island Dam must be de-authorized for the reasons outlined in volumes of public hearing testimony on the Madigan/Praeger study, in arguments presented by the Council on Environmental Quality, the Environmental Protection Agency, and members of Congress co-sponsoring or supporting this legislation.

The 209 issue should not be used as a lever by pro-dam interests in an underhanded attempt to keep the Tocks Island Dam alive, as part of a planned strategy to delay authorization pending a political climate imagined more favorable to dam construction next year or the year after. There are some interests pushing for the relocation of 209 who are genuinely concerned by the real safety hazards on this heavily travelled road and anxious to avoid the undesirable bissection of a park by truck traffic. There are, however, other interests, apparently anxious to promote the highway relocation so as to make the de-authorization legislation so complicated and controversial as to put the entire bill in jeopardy.

It is clear that the two issues are segregatable. The Tocks Dam bill should not be allowed to die because of an extraneous issue which could be dealt with under separate authorization, if necessary. After all, billions of dollars of highways are authorized every year as a part of the federal highway system.

A bill to de-authorize one of the most controversial and unpopular Army Corps of Engineers projects in the country should not be sacrificed to provide for the construction of a highway the necessity of which is, in fact, open to considerable question. Whereas dozens of highly professional studies have demonstrated the existence of viable and economical alternatives to the Tocks Dam, the proposal to relocate 209 has not been thoroughly evaluated or studied, nor have alternatives to this action been examined. Even the necessary transportation studies on point of origin and point of destination of traffic

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on the old 209 have not been conducted. According to Mr. May, Director of the PennDot Bureau of Transportation, Planning Statistics Department in a letter to the DVCA on May 19, 1976, the last point of origin and destination studies were completed in 1963, over THIRTEEN years ago. Since that time, the completion of I-80 has changed, radically, transportation patterns in the region.

A possible alternative route for much of the 209 traffic (route 84) is due to be completed within a year. Some of the traffic on the existing 209 could take route 84 now but among the reasons given by truck drivers is that route 84 has no restaurants or rest stops and has about 15 miles of grade. The truckers prefer to take the existing 209 with its level grade and selection of restaurants. It would be preposterous indeed, if legislation to de-authorize the Tocks Island Dam was killed because of the truck driver's understandable preference for a route with restaurant facilities, level grades and fast speeds maintainable on that level grade. If the truckers are used by pro-dam interests as pawns in a strategy to promote the relocation of 209 as a means of delaying de-authorizing legislation, not only citizens throughout the four-state region will be badly abused but also the truckers, themselves: the new 209 will be without restaurant facilities, have miles of grade as the highway climbs to the top of the Pocono rim and no longer be the fast route preferred by the trucking industry.

The fact of the matter is that neither the members of Congress, this committee, the truckers, nor the DVCA can definitively state or exactly enumerate the compelling reasons why 209 must be relocated, since none of the required studies demonstrating the necessity for this highway have been conducted.

Albeit the unsafe conditions of the current highway can be presented as a rationale for relocating the highway, but, if safety is the prime concern of those calling for relocation, we would like to point out that the proposed

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relocation of 209--at a cost of at least $100 million to the taxpayer--will take, at least, eight years, perhaps more. During that eight years tourist traffic (generated by DWGNRA) will greatly increase into the region, intensifying the safety hazard on the highway. If this committee is seriously concerned about safety along this highway (and not looking for a way of delaying de-authorization), one of the quickest and safest solutions to the 209 problem would be to convert the existing 209 into a scenic highway and re-route the commercial traffic.

If this committee finds itself unable to simultaneously de-authorize the Tocks Island Dam and relocate route 209, the issues should be segregated once and for all. The wishes of citizens in the four-state region and throughout the country are clear regarding the necessity for the de-authorization of the Tocks Island Dam. Of the two, this issue has the clear priority.

Written by: Mina Hamilton Haefele

Presented by: Barry Allen

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Some Facts About the Proposed Relocation of Route 209

1) The necessary traffic studies have NOT been done indicating a need for the road. The last point of origin and point of destination studies were done in 1963, THIRTEEN YEARS AGO. Since that time, the completion of I-80 has changed, radically, transportation patterns in the region. The federal taxpayer should not be asked to pay $100 million for a new road, the necessity of which has not been demonstrated.

2) Several THOUSAND additional acres would have to be acquired by the Army Corps of Engineers and the Department of Interior. Most of the land along the proposed route has not yet been acquired. Relationship between acquiring agencies and residents in this region have been extremely bitter because of favoritism shown to outside real estate speculators and those with political "pull" and harassment of land owners. We are opposed to further costly land acquisition along the proposed route.

3) It would take, at least, EIGHT years for the new highway to be completed. In the meantime, hazardous traffic conditions along the old 209 will be compounded by visitors coming into the Recreation Area. A more rapid and LESS EXPENSIVE solution of shifting undesireable truck traffic to alternative routes has not even been considered, much less studied.

4) The proposed new 209 would not be a significant improvement on the old highway because there is not sufficient money in the PennDot (Pennsylvania Department of Transportation) to construct an additional two lanes or build interchanges. Thus the new 209 would be remarkably similiar to the old 209--a two lane highway with many grade crossings--though new 209 would be of a more modern design. PennDot is EXTREMELY UNLIKELY to have the necessary funds to make the relocated 209 into a limited access, four-lane highway for over a decade. PennDot has just cut 87% from its capital construction budget for the next 12 years.

5) The proposed new 209 would cut an asphalt swath 23-miles-long through a scenic, untouched section of the Poconos. The proposed new 209 would destroy countless gorges, waterfalls, mountain streams, as well as funnel truck traffic in a corridor immediately adjacent to the scenic Delaware valley. Atmostpheric and noise pollution would result.

6) Historic and archaeological surveys mandated by the Historic Preservation Act of 1966 and Executive Order 11593 have not been made along the proposed route for relocated 209. An environmental impact statement for the road, which would consider alternatives, has not been conducted. Land acquisition and highway construction should not proceed until these necessary studies have been funded, completed, and subject to public review at public hearings.

OS-2(8-75)

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF TRANSPORTATION

May 19, 1976

IN REPLY REFER TO

Mrs. M. Haefele
Delaware Valley Association
P.O. Box 159
Stillwater, N.J. 07875

Dear Mrs. Haefele:

Enclosed are some of the types of material used in the original analysis for relocated U.S. 209. As Don Tatkovski had said over the phone to you, this analysis included a fully operating Tocks Island recreation area, attracting itself ten to fifteen million annual visitors.

The original data collection was taken in 1962-3 as part of the Statewide Origin and Destination Study ultimately published by Edwards and Kelcey Consulting Engineers. In 1968 several of the data collection stations of the Statewide Study were used in the analysis for relocated U.S. 209. This was considered a valid and economic process since the data was only five years old and no major highway network changes had occurred. To this base was added the influence of the proposed visitors.

The 1963 origin and destination surveys were split into auto and commercial (trucks-over six tires) traffic. However, the Tocks Island (U.S. 209 relocation) analysis used the combined data as there was no need for a separate commercial analysis. Truck percentages of the ADT (average daily traffic) and type distribution percentages were adequate for geometric and pavement design.

Opinion would indicate that if traffic estimates for design were needed, new data should be obtained. New patterns of growth and the effects of I-80 have probably altered considerably the 1963 base of estimates.

I hope we may have been of some assistance to you.

Very truly yours,

T. H. May

Thomas H. May, Director
Bureau of Transportation
Planning Statistics

Enclosures

paramus environmental council p.o. box 12 paramus, n.j. 07652

June 4, 1976

Mina Hamilton Haefele
President
Delaware Valley Conservation Association
Box 159
Stillwater, N.J. 07875

Dear Ms. Haefele:

The Paramus Environmental Council heartily endorses your Association's call for a deauthorization of the Tocks Island Dam Project.

The reasons for deauthorization have already been detailed in reports by the Army Corps of Engineers, The Council on Environmental Quality, and the Environmental Protection Agency.

It is obvious that the Tocks Dam is an arrogant hidden subsidy for nuclear power. Let the utility build their coolant reservoir with their own funds if they want it so badly!

Nuclear advocates boast that nuclear energy is cheaper than all other energy sources. If that is true, then by their own self-professed love of free enterprise, there is no justification whatsoever for spending a single penny more in subsidies for nuclear power.

Tax money should be spent on funding and providing incentives for cleaner, safer, better decentralized independent energy sources.

Sincerely,

Sidney J. Goodman, P.E.

Sidney J. Goodman, P.E.
President
Paramus Environmental Council

Senator GRAVEL. Our next witness is Dorothy Batchelder.

STATEMENT OF DOROTHY BATCHELDER, CHAIRMAN, INTERLEAGUE COUNCIL OF THE DELAWARE RIVER BASIN AND THE LEAGUE OF WOMEN VOTERS, NEW HOPE, PA., ACCOMPANIED BY MRS. HASKIN, INTERLEAGUE COUNCIL OF THE DELAWARE RIVER BASIN

Mrs. BATCHELDER. Good morning. I am Dorothy Batchelder. I am chairman of the League of Women Voters Interleague Council of the Delaware River Basin. The Interleague Council, comprised of representatives from the four basin States—New York, New Jersey, Pennsylvania, and Delaware—is concerned with long-range planning and development of the river basin and its service area.

The Interleague Council studied the Tocks Island Dam project in depth, followed the consultant's reports, attended all hearings and studied materials on all phases of the project. In addition, the ILC prepared the booklet, "Tocks Island Dam—To Be or Not To Be," which you all have copies of, presenting the pros and cons of the project. Based on this information, together with the "Rationale for Tocks Island Dam Concurrence," the majority of the 183 local leagues in the service area of the four basin States concurred with the Interleague Council as follows:

Statement one—The Tocks Island Dam has been proposed for the purposes of water supply, flood control, power generation, and recreation. Based on careful study of available data, the Interleague Council at this time believes that the environmental, social, and economic disadvantages of building the dam do not warrant proceeding with the project as planned and suggests deauthorization of the dam.

Statement two—We further urge legislation authorizing the National Park Service to operate a recreational facility in the area presently designated as the Delaware Water Gap National Recreation Area. Without a dam the recreational facility should be established in such a way as to be compatible with the unique features of the area, including the free-flowing river and adjoining lands, historical and archeological sites, and to preserve existing habitat for fish, birds, game, and plants.

We would like to review briefly some of the reasons why we feel that the dam should be deauthorized. Deauthorization will also make it possible for the Corps and the Delaware River Basin Commission to develop other means of meeting basin needs. In this connection we support the request of the Delaware River Basin Commission for funds for a thorough study of a nonstructural "no dam" flood protection program.

WATER SUPPLY

A major concern has been to provide substantial amounts of cooling water for future powerplants. Location of new plants in the brackish waters of the lower estuary would eliminate this necessity. Such location would have almost no effect on the upstream movement of the salinity gradient.

Another major concern has been maintenance of 3,000-cubic-feet per-second flow at Trenton to keep sea salinity below the Torresdale intake of the Philadelphia municipal water supply and the Camden wells. Unless there are large increases in consumptive use and/or substantial diversions of water out of the basin, this may not be a real threat. Historically, even during the drought of the mid-1960's with New York City not making its Supreme Court mandated releases, the 250-milligrams-per-liter isochlor—chloride concentration considered by the Public Health Service too high for human consumption—did not reach the Torresdale intake.

An increased source of freshwater at the head of the bay should alleviate somewhat the salinity in that area and also have some effect upstream as far as the sea salt extends. This increase in freshwater comes from the widening and deepening of the Chesapeake-Delaware Canal. Started in 1964, the project was completed in 1975, and brings an additional net flow of freshwater from the Susquehanna to the Delaware of approximately 1,462 cubic feet per second.

Water for northern New Jersey by diversion out of the basin has been considered a need. This may not necessarily be so. Last year New Jersey indicated that it could meet its water needs for some years to come without further water from the Delaware. A long-range water supply master plan now underway should clarify this point.

Tocks Island Dam might eventually be a disservice to downstream users, for it would encourage substantial increases in upstream consumptive use and in future out-of-basin diversions with consequent increase in average annual salinity downstream. When New York City started storage of water in 1953, salinities in the upper estuary rose, despite releases even though the full 800 million gallons daily was not diverted initially; 800 million gallons daily is roughly 10 percent of the average flow at Trenton, and its out-of-basin diversion inevitably increases average annual salinity downstream in the basin accordingly.

FLOOD CONTROL

A dam at Tocks Island would only protect life and property along that stretch of the Delaware River below the dam and not on the tributaries where there has been great damage and loss of life. Current flood control trends are toward nonstructural methods. These we support. On July 7, 1976, at a hearing held by the Delaware River Basin Commission, the interleague council testified in support of flood plain regulations being adopted by the commission for use by municipalities in the Delaware basin.

POWER

Only 70 megawatts would be produced by conventional hydroelectric means at Tocks Island Dam. Reduction of need for cooling water for new powerplants was mentioned above under water supply. Pumped storage at the damsite would be essentially an energy-wasteful operation, since it takes 3 kilowatts to pump the water up and 2 kilowatts are obtained as the water comes down. There are still unanswered questions as to the effect of this operation on the reservoir, particularly on the eutrophication process, and the effect of the fluctuating water level on such things as conventional hydroelectric operations.

RECREATION

The unique free-flowing river now provides excellent canoeing and sports fishing. We question the recreational value of an impoundment that would be subject at times to severe eutrophication, drawdowns of 20 or more feet, and mudflats covering perhaps as much as one-third of its length. Further, bringing 4 to 10 million visitors into the area would place a severe strain on all facilities from roads to services at great cost to the States and municipalities involved.

The Tocks Island Dam project would have a number of adverse impacts, among which are, one, archeological—this area is one of the earliest Indian settlements on the east coast, dating back possibly to 10,000 B.C. Two, historic sites—Old Mine Road, one of the oldest roads in the area, would be partially inundated. Many historic sites would have to be diked or relocated. Three, fisheries, both commercial and sports, would be severely dislocated or perhaps even eliminated. At the upper end of the basin the shad fishery and sports fishing would be threatened by the impoundment. At the lower end of the basin, regulated flows and increased average salinities would adversely affect the biological populations, which depend on natural, fluctuating flows for their well-being. This includes commercial and sports fishing and the oyster industry.

Relocation of Route 209 was not studied by the interleague council, and, therefore, we can make no comment. However, we do feel that this matter should be addressed by the committee.

Thank you for this opportunity to appear before your subcommittee. We would be very happy to answer questions or provide any further information that you might want.

Senator GRAVEL. Thank you.

Mrs. BATCHELDER. We have two of my resource people with us here today.

Senator GRAVEL. I have no questions.

Senator RANDOLPH. May I have just this opportunity?

Dorothy, I listened to what you were saying, and I recognize the importance of the attention which women voters give, as well as men voters give, to subjects of this kind. There are 4 million more women eligible to vote in the United States than there are men eligible to vote. So you are aware of a substantial force. I do not say that as a pleasantry; that is fact.

I am calling attention, as I earlier did with Commissioner Bowers and with Commissioner Johnson, to the difference in point of view. The city of Philadelphia, through testimony, indicates that that city, is against deauthorization. Do you have any comment, other than what you presented, as a reason why those persons would be taking a stand other than the presentation that you have taken?

Mrs. BATCHELDER. I would like to introduce Mrs. Haskin, who is on our board. She is one of our resource persons when it comes to the question of salinity.

Mrs. HASKIN. As Mrs. Batchelder indicated in our testimony, one of the major concerns in the drought of the sixties was Philadelphia's water intake at Torresdale. It gets its municipal water supply from two sources—the Delaware at Torresdale and the Schuylkill River. As she also indicated, the public health service standard for drinking water is 250 milligrams per liter of chloride concentration.

In the mid-sixties this isochlor did not get up to Philadelphia, it came up to 8 miles below. I think one of the major concerns that Philadelphia has is that increased consumptive use in the basin will reduce the amount of freshwater coming down the river, and that in future droughts the saltwater concentration will reach Philadelphia's intake.

However, we would like to point out one very important factor. During the drought of the mid-sixties, New York City said that it was unable to meet the mandated releases. When New York was permitted to divert its full 800 million gallons a day, it was also mandated by the Supreme Court that New York City should release enough water to maintain a flow of 750 cubic feet per second. If this had been done, salinity of river flow at Trenton would probably have been roughly—this is a ballpark figure—2,500 to 2,600 cubic feet per second, which would have been adequate to keep the salinity gradient down the river.

The point I am making is that you don't necessarily have to have Tocks Island Dam to protect Philadelphia's water supply. If New York City would meet its mandated releases in times of drought, we would not have a crisis. There is still enough water in the Delaware, even if you permit some growth and increased consumptive use.

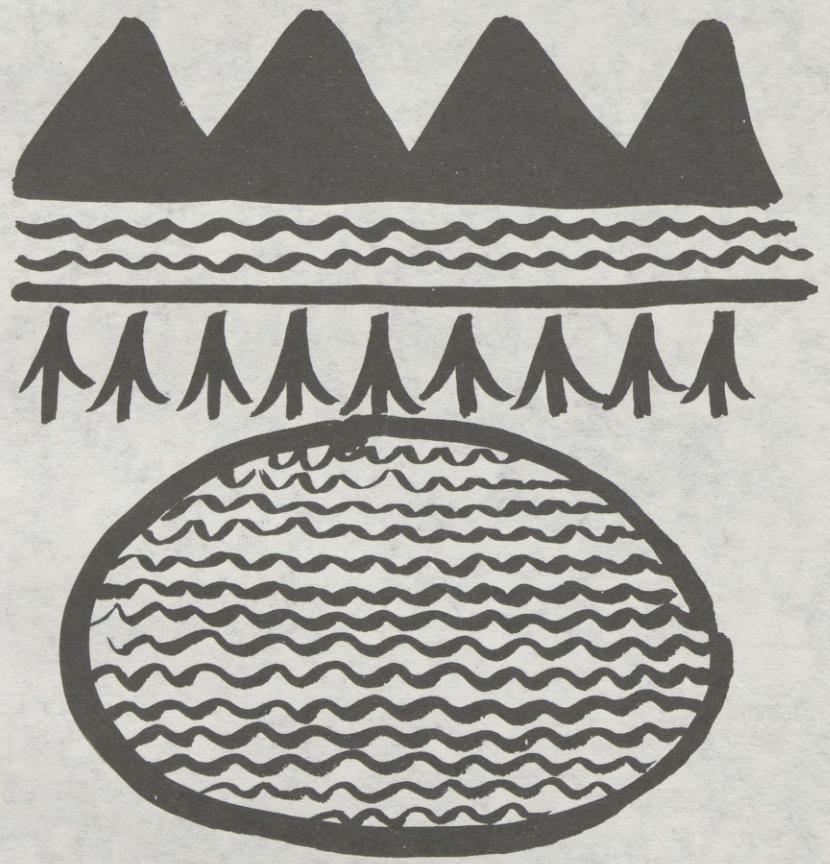
So our position is we don't think that this is a threat, but this is why, it is our understanding, this is Philadelphia's concern.

Senator RANDOLPH. Thank you very much, Mrs. Batchelder and Mrs. Haskin. I wanted you to give a more definitive reason in reference to the city and its people. Thank you very much.

Senator GRAVEL. Thank you, ladies.

[An attachment to Mrs. Batchelder's statement follows:]

tocks island dam

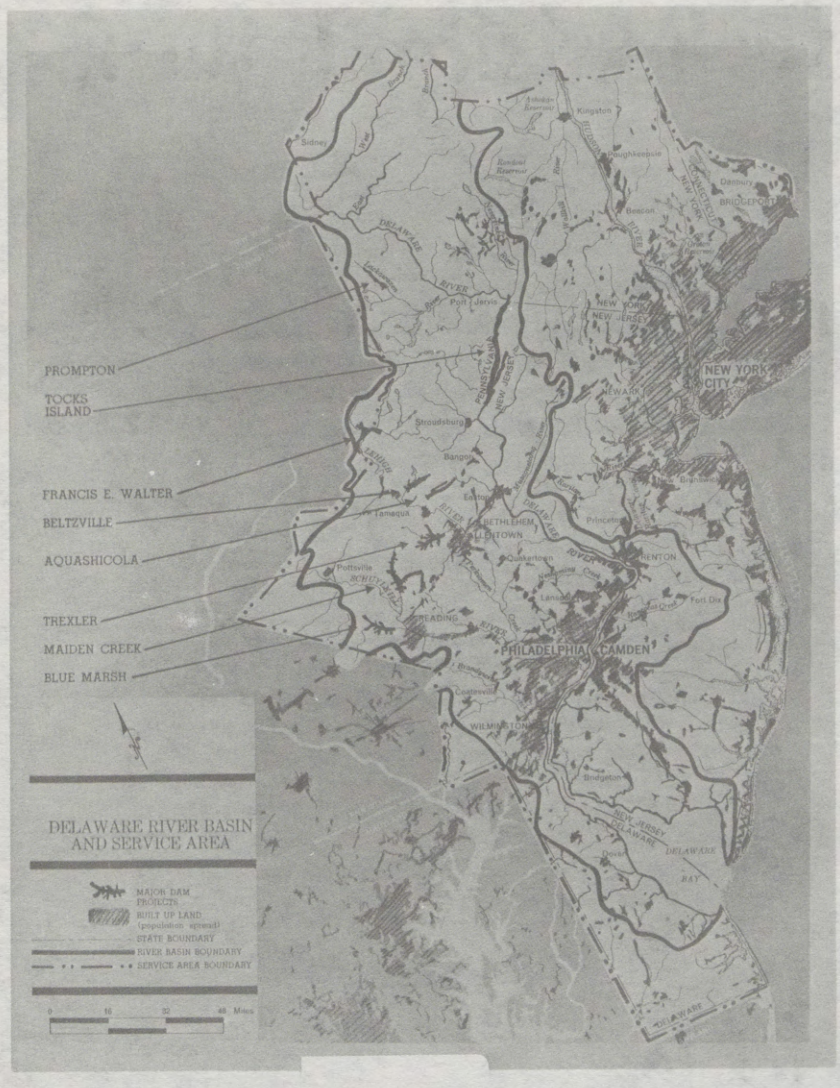


to be or not to be

LEAGUE OF WOMEN VOTERS

DELAWARE NEW JERSEY NEW YORK PENNSYLVANIA

INTERLEAGUE COUNCIL OF THE DELAWARE RIVER BASIN


PROMPTON
TOCKS ISLAND
FRANCIS E. WALTER
BELTZVILLE
AQUASHICOLA
TREXLER
MAIDEN CREEK
BLUE MARSH
DELAWARE RIVER BASIN AND SERVICE AREA
MAJOR DAM PROJECTS
BUILT UP LAND (population spread)
STATE BOUNDARY
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Sidney
Kingston
Poughkeepsie
Danbury
BRIDGEPORT
Beacon
Port Jervis
NEW YORK
NEW JERSEY
NEW YORK CITY
NEWARK
Stroudsburg
Bangor
Easton
Tamaqua
BETHLEHEM
ALLENTOWN
Princeton
Quakertown
TRENTON
Pottsville
Lansdale
Fort Dix
READING
PHILADELPHIA
CAMDEN
Coatesville
WILMINGTON
Bridgeton
Dover
DELAWARE BAY
DELAWARE
PENNSYLVANIA
NEW JERSEY
DELAWARE RIVER
SCHUYLKILL RIVER
LEHIGH RIVER
HUDSON RIVER
CONNECTICUT
NEW YORK

TOCKS ISLAND DAM – TO BE OR NOT TO BE

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PREFACE

The Leagues of Women Voters in the four-state Delaware River Basin service area have been concerned with water resources management since the 1950's. It was at this time that the Interleague Council was formed to study and take action on water resources and to promote long range planning in the Basin. More recently, land use has become of equal concern.

In 1965, when construction of the Tocks Island Dam seemed certain, local leagues in the four states — Delaware, New Jersey, New York and Pennsylvania — reached consensus on support of water-based recreation at the proposed Tocks Island reservoir and supported the establishment of a National Recreation Area there, but did not seek consensus on support of the proposed dam itself. As controversy concerning the project increased, league members could not agree on the total project, and in 1972 LWV support of recreation at Tocks was dropped.

This booklet is a revision of our 1972 publication presenting the pros and cons of the proposed Tocks Island Dam. Material used in its preparation has been gathered from a variety of sources available as of March, 1975. The results of a one-and-a-half million dollar study on the Tocks Island project authorized by Congress will not be available until August 1, 1975. This booklet attempts to present both sides of the question — whether Tocks Island Dam should now be constructed.

PURPOSE OF TOCKS ISLAND DAM

The Corps of Engineers and the Delaware River Basin Commission Staff support the construction of a multi-purpose dam across the main stem of the Delaware River at Tocks Island for the following purposes:

WATER SUPPLY: To augment river flow in periods of drought for maintenance of minimum flow of 3,000 cfs (cubic feet per second) at Trenton; to meet increased water demand in northern New Jersey (additional diversion from the Delaware Valley); to meet growing industrial, municipal and agricultural demands in the Delaware Valley.

FLOOD PROTECTION: To reduce flood damage along the main stem of the Delaware River from the Tocks Island Dam to Burlington, New Jersey.

POWER: To help meet peak energy demands through the building of a large pumped storage generating station on Kittatinny Mountain by a group of New Jersey utility companies; to provide 70,000 kilowatts (kw.) through conventional hydroelectric generation at the dam; to provide water for cooling purposes for various energy-generating facilities proposed for the Delaware River Basin service area.

RECREATION: To provide the largest inland, water-based recreation attraction in the Northeast, consisting of a 37-mile long lake covering 12,000 acres. The total recreation area would be 69,000 acres. Approximately 64% of the acreage had been purchased by February, 1975.

The Corps would design, construct and manage the dam. The Delaware River Basin Commission would allocate and sell water from the reservoir. The Federal Government would be reimbursed for that portion of the cost of the dam assigned as a water supply benefit. A group of private power companies would operate the electric generation facilities, paying a yearly fee for the privilege (Public Law 91-282, 1970). The National Park Service would operate the Delaware Water Gap National Recreation Area.

HISTORY

As early as the mid-1920's, New York City sought access to the headwaters of the Delaware (on the western slopes of the Catskills) for water supply. But it was not until a 1931 Supreme Court Decision that the first diversion was authorized---up to 440 mgd (million gallons per day). In 1952 New York again petitioned the Supreme Court for an additional allocation although the permitted 1931 diversion had not yet started. New Jersey and Pennsylvania again contended that water could be "procured feasibly, practically and more economically" from the Hudson. The Consent Decree (1954) raised the diversion to 490 mgd. Upon completion of the projected Cannonsville reservoir New York City would be permitted to further increase its diversions to 800 mgd and New Jersey would get 100 mgd, which is the situation at this time. First actual diversion of this water occurred in 1953.

These disputes among the four states led to the decision that some administrative mechanism was needed to manage water resources in the basin. The old INCODEL (Interstate Commission of the Delaware) established in 1936 lacked the needed regulatory powers. The devastating flood of 1955 helped give Congress the impetus to direct the Army Corps of Engineers to prepare a plan for the water needs of the basin through year 2010 (House Docu-

76-797 O - 76 - 12

ment 522). It wasn't until 1961, however, that the Delaware River Compact was approved by the four state legislatures and Congress and the Delaware River Basin Commission came into being as the new regulatory agency. One of the Commission's first acts was to accept most of the Corps' plan as its "Comprehensive Plan, Phase One". Tocks Island Dam and Reservoir was a key feature of the plan approved by Congress in 1962 (Flood Control Act of 1962 - PL 87-874).

As proposed by the Corps, the dam would be of earth and rock and would create a 37-mile long lake stretching from 5 miles north of the Delaware Water Gap to Port Jervis, New York and would vary in width from less than 1 mile to 2 miles, flooding some 12,000 acres along the N. J. and Pa. shorelines. Conceived as a multi-purpose dam, it would provide water supply, power, flood protection and recreation.

Following authorization of the dam, the Corps of Engineers proceeded with engineering studies and plans, the National Park Service prepared a Master Plan for the recreation area (1966), and the Tocks Island Project seemed certain. The enactment in 1970 of the National Environmental Protection Act (NEPA) required an Environmental Impact Statement (EIS) on all federally funded projects. That fall the Corps submitted a brief EIS. This immediately caused concern at the Council on Environmental Quality (CEQ) on several points, primarily drawdown and possible eutrophication. To allay CEQ's concern, the Corps commissioned the McCormick study on the possibility of eutrophication. The Corps' expanded EIS, accompanied by the McCormick study, was submitted in the fall of 1971. This only increased anxieties. CEQ was satisfied on some points, but still strongly questioned eutrophication.

Former Governor Cahill of New Jersey has raised the following specific conditions which must be approved before New Jersey will approve the dam: (Governor Byrne has not commented as yet.)

1. Land use control in flood plains	1. N. J. enacted legislation, Pa. pending
2. Smaller sewage treatment plants instead of one large plant	2. Authorized
3. Federal aid for funding of access roads	3. 70% of construction costs authorized by U.S.
4. Maximum of 4 million day visits; adequate overnight campsites	4. Authorized, no plans yet announced
5. Authority for state and local governments to control land use in primary impact area (Warren and Sussex Counties)	5. Not resolved
6. Federal compensation to local governments for loss of real estate tax base	6. No action
7. Control of nutrient flows	7. No plans, eutrophication issue not settled

As a result of renewed opposition to the Tocks Island Dam, Congress authorized in 1974 $1.5 million for a Comprehensive Review Study of the entire project to be conducted by the Corps of Engineers. A Study Management Team composed of the Corps of Engineers and the signatories of the Delaware River Basin Compact was established. USR/Madigan-Praeger, Inc. and Conklin & Rossant have been retained as study consultants. Their study is scheduled for completion by August, 1975. Following release of the final report of the Study Management Team, a decision will be reached by the DRBC (the Governors of the four basin states and the Secretary of the Interior) as to whether to recommend to Congress the construction of Tocks Island Dam and continued development of the National Recreation Area.

WATER SUPPLY

The question of water supply within the Delaware Basin is complex and the role of the proposed Tocks Island reservoir in this complex question is by no means clear. Any rational approach to the question must consider water availability against demands. The Delaware River Basin receives an average of 44.6 inches of rainfall annually over its 12,765 square miles, that is, 9.8 trillion gallons a year or 27,100 million gallons a day (mgd). About half of that amount evaporates to the atmosphere either directly or through plants and their leaf surfaces (evapo-transpiration). The remaining half (normally 13,200 mgd, in dry months down to 2,800 mgd) flows over the ground and filters down through the soil, then flows slowly out to streams, maintaining their flow during dry periods. Rain water also filters into fractures and porous formations which form underground reservoirs called aquifers. If the underground reservoirs are full, and the ground is saturated with water, any additional rain runs off directly into streams. It is directly from the River, from impoundments along its tributaries and from the underground natural reservoirs that the homes and industries of the Basin take their fresh water supplies. After use, the water is returned to the Basin directly or via septic tank or sewage treatment plants. The water returned to the river is available for re-use downstream. Re-use is limited by the amount of pollutants added during use. Federal and State regulations specify how clean the water must be before it is returned to the river. Natural biological processes in the river, if not overwhelmed, help clean the water. Turbulence in the river and aquatic vegetation add oxygen to the water, while rooted vegetation traps particulate matter.

USES: It is important to understand that most water withdrawn from the River for various uses, such as municipal supply, industrial cooling and processing, etc. is returned to the River, and thus may be used repeatedly on its way through the Basin. However, certain uses involves losses from the Basin either by diversion from the Delaware watershed or by evaporation to the atmosphere. Such uses, which reduce the total amount of water available within the Basin, are called depletive. It is apparent that the depletive uses make the greatest demands on supply. Non-depletive uses assume importance chiefly through their influence on water quality.

A. USES WITHIN THE BASIN: As of 1971 the major municipal use within the Delaware Basin according to a DRBC survey of surface water withdrawals totaled 693.4 mgd. Philadelphia, the largest user, withdrew 217 mgd, and Trenton, the second largest, withdrew 37 mgd. (Philadelphia also gets water from the Schuylkill - in 1971, 169 mgd). Using the Delaware River Basin Commission estimate that of municipal withdrawals 10% might not be returned to the river, depletive use by the municipalities might then approach 69.3 mgd.

The major use of River water is for cooling in electrical power generation and in the oil and chemical industries. According to DRBC's "Comprehensive Plan" (September, 1973), in 1970, industries accounted for 104 mgd of depletive use; steam electric generation, 26 mgd; agricultural irrigation took 45 mgd, and livestock and rural domestic together 13 mgd. (See Table 1 on following page).

TABLE 1

DEPLETIVE WATER USE – DELAWARE RIVER BASIN
FOR YEARS 1970 AND 2000 (Projected)
AVERAGE ANNUAL DAILY RATES (In Mgd)

	Used Within the Basin			Diversion from the Basin	
	1970	2000		1970	2000
Rural Domestic	5	5	New York City	600	800
Municipal - low projection	87	127	N. J.: Delaware-Raritan Canal	65	100
Industrial - self-supplied	104	169	Proposed Future Diversion to Northern N. J.	---	300
Steam Electric	26	144	Other	8	11
Agricultural Irrigation	45	57		673 mgd	1211 mgd
Livestock Water	8	8			
	275 mgd	510 mgd			

Summary

	1970	2000 (Projected)
Depletive Use Within the Basin	275 mgd	510 mgd
Diversion to New York City and and New Jersey	673 mgd	1211 mgd
TOTAL DEPLETIVE USE Delaware River Basin	948 mgd	1721 mgd

Note: Figures from Delaware River Basin Commission, Comprehensive Plan, September, 1973: p. I-93.

B. DIVERSION FROM THE BASIN: Diversion or total removal of water from the Basin is another depletive use. Two diversions were mandated by the U. S. Supreme Court in 1954: 800 mgd to New York City from three reservoirs on the upper Delaware at Neversink, Pepacton and Cannonsville; and 100 mgd to central New Jersey through the Delaware-Raritan Canal, extending from the Delaware River above Trenton to the city of New Brunswick.

The Supreme Court decree authorizing the New York City diversion required construction of reservoirs that would provide for so-called compensatory release of water during low-flow periods to maintain minimum river flow at Montague of 1750 cfs. 1 million gallons/day (mgd) = 1.547 cubic feet/sec (cfs). This assures a flow of 3000 cfs downstream at Trenton. Diversions and releases by New York City were placed under control of the River Master, a staff member of the U. S. Geological Survey. At its creation DRBC obtained emergency powers to suspend the Supreme Court decree and reallocate water. New Jersey is not required to provide compensatory release for its 100 mgd, but must do so for any further diversions.

A third diversion from the Basin of up to 300 mgd to northeastern New Jersey has been proposed. Providing compensatory release water for this diversion is given as one of the primary objectives of the Tocks Island Reservoir.

TOCKS ISLAND RESERVOIR: One of the benefits expected from the proposed Tocks Island Project is augmentation of low river flows. The total water supply would not be increased. The impoundment would not tap any new water sources. It would be a holding tank, permitting storage of water at times of high flow and release during low flow periods. Three major reasons are given for augmentation of river flows:

(1) to provide for anticipated depletive uses projected mainly for further power plants within the Basin

(2) to provide for releases to maintain a minimum flow at Trenton of 3000 cfs

(3) to provide for compensatory release for further diversion of water to northeastern New Jersey

DISCUSSION

(1) DEPLETIVE USES FOR FURTHER POWER PLANTS WITHIN THE BASIN: It is clear from the discussion of water uses above that currently in-Basin depletive uses (cooling water, irrigation, municipal, industrial processes) are small compared with river flows even at extreme low flow periods. Some projections of future depletive losses due to power plant cooling requirements, on the other hand, are substantial, (e.g. 560 cfs, as indicated in discussion of power requirements below). If actually realized, they could utilize approximately a quarter of the low flow discharge at Trenton. (Historically, low flows at Trenton exceed 2000 cfs about 97% of the time and 3000 cfs about 90% of the time.) The depletive use projected for the future power plants would permit further up-estuary intrusion of salt water with consequent decline in water quality. The extent of this intrusion would, to some degree, depend on location of the plants. Salt water intrusion effects are lessened, the further down-estuary the plants are located. Proponents of the Tocks Dam hold the view that the reservoir is essential to provide water for the depletive use of power plants during periods of low river flow. Others hold the view that an alternate solution to the salt intrusion problem would be to site power plants further down-estuary or, preferably, completely outside the Delaware Basin.

(2) MAINTENANCE OF A MINIMUM FLOW OF 3,000 CFS AT TRENTON: Closely related to the problem of insuring an adequate supply of fresh water in the estuary for power plant depletive use during low flow periods is the need to provide a minimum flow of 3,000 cfs at Trenton. A principal reason offered for this is to protect the Torresdale intake of the Philadelphia water supply from salt encroachment during severe drought. As summarized by Sinden in "Boundaries of Analysis: An Inquiry into the Tocks Island Dam Controversy", this need seems to have evolved following the drought years 1964-65, although the 3,000 cfs minimum flow at Trenton has a history dating back at least to the first Delaware Diversion Case of 1931. In those earlier years the minimum flows were seen as providing dilution water for the most heavily polluted regions of the estuary, and secondarily as providing some protection for the aquifers recharged from the river bed in the vicinity of Camden. Those who consider Tocks unnecessary point to the possibility of relocating the intake for the Philadelphia water system further upstream as a very economical alternative to the construction of Tocks. According to Sinden, the Raritan-Magothy aquifer from which Camden draws its water is becoming increasingly polluted from industrial seepage, and Camden may eventually have to seek another water source, no matter how great the flow at Trenton. The State-owned, water-rich Wharton tract some 25 miles south-east of Camden has been suggested as such a source (Report by Tibbetts, Abbett, McCarthy and Stratton (TAMS) to State of New Jersey Legislative Commission, "Survey of New Jersey Water Resources Development," 1955).

(3) DIVERSION OF WATER TO NORTHEASTERN NEW JERSEY: It has been proposed that 300 mgd of water from the Delaware Basin be exported to Northeastern New Jersey. Figures presented by the N. J. Department of Water Resources indicate the already developed supplies are being overdrawn. The 1955 TAMS report concluded that through the year 2000 an additional 300 mgd would be needed for northeastern New Jersey, but that the needs could be met "entirely from resources within the boundaries of the State without interstate agreements or permissive judgements from the Supreme Court. There are, however, economic advantages in using water from the Interstate Delaware River Basin to provide the necessary additional supplies which will be needed in the Northeastern Region after 1995". They further recommended "That the estimated 300 million gallons of additional water which will be needed in the Northeastern Region after expansion of existing supplies can best be provided by developing 200 mgd in stages in the Raritan Basin and 100 mgd in the Delaware Basin". These recommendations were referred to in H.D. 522, and the Corps did not suggest any additional diversions to New Jersey in that document. If additional water were eventually diverted to Northeastern New Jersey, releases for compensation could come from some other reservoir – not necessarily Tocks. It may occur that the possibility of obtaining additional water supplies may encourage additional growth and dependence on the new supplies so that in a severe drought the total supplies would be stretched that much thinner.

OTHER ALTERNATIVES

The most direct step to increased use of water within the Basin would be to eliminate upper Basin diversions. The natural water supply for New York City is the Hudson River with its fresh water flow which is greater than that of the Delaware. The New York diversion may deplete the Delaware Basin of 800 mgd, while entire depletive use by all municipalities within the Basin, including Philadelphia, is less than 90 mgd. Furthermore, New York City is notoriously wasteful of its water. With its antiquated leaky mains and lack of metering, it is estimated that it wastes over 300 mgd.

New Jersey might not need to divert as much as 300 mgd from the Delaware River Basin. One suggestion has been better coordination of ground water and surface water in northeast New Jersey, using surface water in times of adequate rainfall and holding ground water in reserve for drought periods. High-flow skimming to Round Valley Reservoir is another possibility. Hazen, Whipple, and Fuller, in a 1922 water study suggested transporting high quality water from the Mullica River Area to Newark. A Water Master Plan for New Jersey is to be started soon. This should give a clearer picture of the state's water resources and their ability to meet New Jersey's long term needs.

FLOOD CONTROL

In the past 134 years of record, there have been 13 significant floods in the Delaware River Basin, the most severe occurring in October 1903, March 1936, May 1940, and August 1955. The last was the result of two tropical storms that struck within one week, depositing a total of 10 inches of rain. This yielded a peak discharge of 329,000 cubic feet per second (cfs) at Trenton. Average river flow at Trenton is 11,371 cfs. Twenty seven million dollars of flood damage occurred between the Delaware Water Gap and Burlington County, New Jersey. The Corps of Engineers estimated that 9,200 acres between Tocks Island and Trenton were flooded. They also estimate that if there had been a dam, and the rainfall had occurred above that dam, the flood level at Trenton would have been reduced by 6 feet. Below Trenton, River level is dominated by tidal effects of the estuary, so a dam would have little effect.

Since 1955, development on the flood plain of the main stem has not continued at as high a rate. The total number of structures in the 8 major damage centers (Belvidere, Phillipsburg, Trenton, and Burlington in New Jersey, and Easton, Riegelsville, New Hope, and Yardley in Pennsylvania) has been reduced by 40% (from 2,420 to 1,414).

Flood control can be added to a water supply dam by building it higher than water supply needs normally but retaining only the water supply volume. In the case of Tocks, a dam for water supply only would be 160 feet high; a dam which also included flood control would be 179 feet. This provides storage for 323,500 acre-feet of storm water. The principal costs attributable to flood control would be for the extra 19 feet of dam height and for additional lands near Port Jervis which would be flooded by storm retention.

Some contend that a dam on the main stem of the Delaware would do comparatively little to prevent disaster in the Delaware Valley. Most flooding occurs in overflow of tributaries which are only partially protected by a main stem dam, and the only loss of life in the 1955 flood was on these tributaries. They are best protected by small dams, some of which have already been built. There are 4 existing large reservoirs and a number of small reservoirs which will reduce flood damages. The Corps has determined that there are more than 100 sites still feasible for development as small flood control projects, but storage at all these sites combined would be less than at Tocks, and the total land inundated would be greater.

The effective life of most dams may be no more than 100 years because accumulated silt lessens the volume of the reservoir. Tocks Reservoir includes 19,000 acre-feet of extra storage capacity to allow for anticipated sediment deposits.

The eight most vulnerable damage centers could also be protected by flood walls and levees (walls of earth constructed parallel to a river to prevent flooding of adjacent lands). Preliminary analysis shows that this type of protection even from the most frequently occurring storms would cost almost twice as much as the estimated benefits. Such structures would offer no protection to any other communities. Levees also change the flooding patterns of a river or stream by removing portions of the flood plain which would normally store these waters. This can increase the severity of flooding both upstream and downstream.

Dams tend to give a sense of security which may be a false security. They lead to downstream development in the now-protected flood plain, sometimes with disasterous results. For example, a dam was built about 14 miles upstream from Rapid City, South Dakota. Not long after extensive development began on the supposedly protected flood plain a flash flood hit below the dam, devastating the newly occupied flood plain and killing more than 200 people.

Since 1962 when Tocks Dam was first authorized by Congress, partly for flood control, there has been an increasing trend toward non-structural flood control. The Corps of Engineers is now authorized to consider these means, including if necessary, relocation of residents from the flood susceptible areas, as in Texas City. Flood plain zoning to prevent further development on the flood plains, flood proofing of buildings susceptible to water damage, relocation of homes in areas continually threatened, are being increasingly used. These methods neither prevent flooding nor preclude flood damage. They do reduce the dollar value of property damage and lessen the threat to life, particularly when coupled with reliable early warning systems. The growing realization that ecological benefits can come from flooding rivers encourages the use of non-structural methods.

The National Flood Insurance Act of 1968 makes federally subsidized insurance available to citizens in communities that adopt regulations controlling future development in the flood plains. The Flood Disaster Protection Act of 1973 makes it mandatory to purchase flood in-

surance in order to receive federally related financial assistance for any building on flood plains. Flood insurance is virtually unobtainable through private companies. This will in effect force communities either to adopt programs of flood plain management or to stop building on flood plains.

ELECTRIC POWER

The electric power industry needs water. In the Delaware River Basin the power industry needs water for three functions — conventional hydroelectric, pumped storage hydroelectric and for cooling condensers in steam electric generating plants (covered in the water supply section).

Conventional hydroelectric generation depends on the mass of water and the distance through which it falls, referred to as the "head". Since Tocks Island Dam is to be only 160 feet high this potential is small - 70,000 kw.

Pumped storage, using the 1,000 foot height of Kittatinny Mountain is projected to be 1,300,000 kw. Pumped storage technology is the pumping of water during periods of low electricity demand, generally at night, from a reservoir or river to a high reservoir where it is held till peak-demand time, usually in the afternoon. Then the water is allowed to fall through large pipes (penstocks) to the turbines to generate electricity.

Since electricity must be used the moment it is generated and cannot be stored in quantity, pumped storage is the utility engineer's answer to a problem. This concept became feasible in the 1960's with the development of a reversible pump-generator mechanism.

A base load plant is a large (100,000 to 1,500,000 kw) plant that operates around the clock and delivers more or less the same amount of power day after day. It is not feasible to design base load units for rapid starting and stopping because of operational and safety factors. Most utility experts agree that special additional or peaking capacity is the solution and pumped storage is the best solution because it utilizes surplus electricity.

"Pumped storage" as noted in the Corps of Engineers Restudy of Tocks Island Dam, " is unique among methods of power generation in that it is dependent on other power sources for its energy supply . . . . Although it uses more energy than it generates . . . pumped storage facilities offer many advantages: rapid start up, long life, dependability, low operating and maintenance costs and adaptability as low-cost spinning reserve." Not everyone is as enthusiastic about this technology; they point out the environmental pollution, radiological hazards and other problems of the base load operation on which pumped storage depends.

The physical potential for pumped storage at Tocks Island was recognized early. Soon after the Delaware River Basin Commission (DRBC) was established, the DRBC authorized three New Jersey utility companies to proceed with a 330,000 kw pumped storage project on Yards Creek, a site parallel with Tocks Island on the inland side of Kittatinny Mt. This project was the first phase of the Kittatinny Mt. Project which would ultimately include use of the Tocks Island project for hydroelectric power purposes.

An amendment to the 1962 Flood Control Act passed in 1970 permits use of head and water releases of Tocks Island Reservoir as an incident to a pumped storage hydroelectric power development project by applicant seeking approval from DRBC, under stringent specifications. Some concerned observers ask if this legislation appears to place the private utilities in a commanding position in relation to the entire Tocks Island project, or if the original multi-purpose nature of the dam seems to have become overshadowed by the demands of the utilities.

According to utility company executives, the upper reservoir has a capacity of 7.5 billion gallons of water. Two of the five units will discharge back into Tocks Island Reservoir. Three of the units will be equipped with facilities to permit discharge either downstream of the dam, taking advantage of the extra 100 foot drop, or back into the reservoir. An interesting feature of this technology is that the energy, generated at night by this release, goes directly as mechanical energy into the pumping operation without going out over the transmission lines, and thus is much more economical. DRBC states that "the savings from pumped storage over the cheapest source of substitute power were estimated to be more than $2 million annually."

The other contribution of the proposed dam to power needs is to supply cooling water to downstream nuclear or fossil fuel generating plants. According to a Federal Power Commission study, "All waste heat from steam electric plants must eventually be dissipated to the atmosphere. The heat given up by the steam in the condensers is first absorbed by the flow of cooling water. . ." The second step is dissipating the heat of the condenser cooling water. This process is carried out by cooling towers, cooling ponds, spray ponds and canals. Cooling towers are divided into two types - wet and dry. Dry cooling towers are non-consumptive of water, but are inefficient. Wet cooling towers consume water. The Feiveison Report predicts that the average depletive water requirements from the new plants proposed for the electric service area of the Delaware River would be 560 cubic feet per second (cfs) by 1986.

Complying with a request from DRBC, the electric utilities in the Basin have presented a fifteen year plan showing the proposed plants and the expected consumptive water usage. Master Siting Plan Delaware River Basin 1974-88 projects 23,051,000 kw of new plants with a maximum consumptive water usage of 519.7 cfs. This plan does not include any plants located outside of the drainage area. Experts from all fields seem to agree that conservation alone is not enough to meet increasing power demands. However, it is encouraging to read that after 30 years of constantly increasing demand, Philadelphia Electric Company found its customers using 6% less electricity in 1974 than in 1973.

Business Week, January 20, 1975, reports: "A new breed of technological improvements is needed, innovations aimed at easing peaks in power demand and decentralizing power generation. This is exactly the opposite of the approach taken in the past. Rate reform seems inevitable. Big users will have to pay more per kilowatt-hour rather than less, and customers who want power during peak demand periods will have to pay a premium for this privilege . . .industry wide, peak demand is growing about 1% a year faster than the average demand for electricity. Smoothing out the demand curve could save $60 billion in capacity additions over the next ten years, the Federal Energy Administration calculates. . .eventually, new technology may ease the peaking problem. William M. Irving, director of Research for Boston Edison and chairman of the Electric Research Institute's Advanced Systems Task Force, says that by the 1980's, utilities may be able to build huge storage batteries that will help meet demand peaks. . .advances in power conversion equipment can also help. Researchers are close to significant breakthroughs that would allow much higher conversion efficiencies, reducing both fuel consumption and pollution."

Other souces of power for the future are breeder-reactor, fusion power, fuel cells, magnetohydrodynamics, geothermal and solar energy. Some of these present lower cooling water requirements. In "The Case for Solar Energy," Center Magazine of the Center for Study of Democratic Institutions, February 1975, Professor William E. Heronemus writes: "If the standard of living of all is to improve, then there must be growth in the global energy industry. That growth can occur without unacceptable pollution if and only if it is growth in solar energy practices. That growth can occur in an "economic" way if a broader planning horizon for the duration of mankind's occupancy of this planet is injected into economic thinking."

RECREATION

DELAWARE WATER GAP NATIONAL RECREATION AREA

Tocks Island Dam was originally conceived for flood control and water supply, but was felt to offer attractive possibilities for water-based recreation. When the Tocks Dam Project was authorized by Congress in 1962, a recreation area was proposed as part of the package, and 25,000 acres was authorized for the entire project. In 1965 the Delaware Water Gap National Recreation Area (DWGNRA) was established, increasing the land authorized for the entire project to approximately 69,000 acres. Congress, in P. L. 89-158 charged the National Park Service with preserving the "scenic, scientific and historic features" within the future park, and appropriated 46½ million dollars for land purchase and 18 million dollars for development. The Corps of Engineers was to carry out the actual purchase of land and then turn it over to the Department of Interior for development and operation. According to a National Park Service News Release, dated February 14, 1975, almost 31,000 acres have now been purchased and 5½ million dollars have been spent for development of facilities. According to a July, 1974, benefit-cost analysis, 45.8% of the entire Tocks project benefits have been ascribed to recreation, based on 4 million visitors; and 53.5%, based on 10 million visitors.

In 1971 an alternate "Natural System Plan for the DWGNRA", based upon a free-flowing river, and utilizing the recreation potential already existing in the area was prepared. This plan has not been authorized by Congress but a similar plan is now being developed by the National Park Service. At an Information Meeting on the DWGNRA at East Stroudsberg on March 29, 1975, the National Park Service suggested consideration of the possibility that the DWGNRA might be redesignated either a National Park or a National Historical Park, if it meets the criteria.

Plans for the park were developed by the National Park Service in its 1966 "Master Plan". The DWGNRA is located in the densely populated Northeast within easy driving distance of such urban centers as New York City, Newark, Trenton and Philadelphia. It was designed for intensive use -- more intensive than any other national recreation area -- to provide recreation for 10 million visitors each year. Its 69,000 acres would include a 37-mile lake with 100 miles of shore line, 4 beaches (with sand brought in) large enough to accommodate 4,000 to 10,000 people at one time. Facilities would include boat ramps, fishing piers, camp sites, picnic grounds, etc. Historic buildings (around 30) would be moved to higher ground. Large parking lots would be strategically located to minimize traffic and air pollution.

Below is a summary of the expected activities of the visitors, as envisaged by the National Park Service. These figures are from a report by the General Accounting Office to the Senate Subcommittee on Public Works, and are summarized by Sinden in "Recreation at Tocks".

EXPECTED USE OF THE FACILITIES

18% of the visitors	Reservoir-surface activities, such as power-boating, sailing, canoeing, fishing
32% of the visitors	Activities that do not use the reservoir such as camping, hunting, hiking, nature study and sightseeing
50% of the visitors	Swimming and picnicking

In 1971 a revision of the Master Plan was introduced by the National Park Service, and is the present guide for park development.

CONCERNS AND CRITICISMS

PLANNING PROCESS: There has been criticism of the planning process itself. Sinden questions the basic premises for the planning which he lists as:

(1) a reservoir is necessary for recreation

(2) the more visitors the better

(3) most visitors will come by car

(4) internal design only should be considered by the National Park Service - external impacts are not the concern of the Park Plan. He feels that the free-flowing river should also be considered; that ability to accommodate visitors should be looked at more critically; that public transportation should be seriously considered; and that external impact should be taken into consideration in park design and visitor load.

Ballante, Clause, Miller and Nolan, at the request of the National Park Service, undertook a "Master Plan Analysis of the DWGNRA," in 1972. They report as follows:

"Revisions of the 1966 Master Plan (DWGNRA) are needed because of the following shortcomings:

1. There has been no regional resource analysis to provide a basis for the development of the Park concepts.
2. The importance of the regional social milieu has not been recognized nor dealt with.
3. Alternative types of development have not been considered.
4. The planning process used to develop the concepts and plans has not been set forth.
5. The concepts have not been logically developed into objectives and action programs. Therefore, points have been missed and conflicts have not been resolved.
6. The Plan cannot give direction to all the people who must work with it over the period of development and operation of the project."

They further conclude that although a revision of the 1966 Master Plan was needed, the 1971 revision still has the shortcomings noted above.

INUNDATION OF LAND, EUTROPHICATION AND DRAWDOWN: Opponents protest the flooding of the level plain along the river, which they feel ideal for picnicking, campsites, hiking, bicycling, etc. and point out that such activities would be pushed back to the steep bankings.

Opponents fear that eutrophication will interfere with water-based activities, such as swimming and boating. The Consultants in their preliminary draft comment: "The use of the upper lake for recreational purposes (present plans are to have beaches and boating facilities in this portion of the lake) may be severely impaired unless extensive remedial measures are undertaken. These remedial measures should include decreasing nutrient loads over the long term as well as the shorter term measures outlined subsequently. Excessive algae blooms will be at least unaesthetic and perhaps a minor health hazard (Medical Society of New Jersey, personal communication, January 1975). Excessive macrophytes could restrict both boating and swimming."

Opponents are also concerned about drawdown and feel that this will detract from recreational use of the upper part of the reservoir during dry periods. Drawdown is discussed more fully in "Ecological Concerns".

TRANSPORTATION: Pennsylvania and New Jersey retained Robert Nathan Associates to do an impact study on the expected effect of Tocks on the surrounding region. One finding of the 1966 study was that "present and planned roads within the primary impact area will be unable to handle the anticipated level of traffic to DWGNRA". Specifically, that "sus-

tained traffic volumes during summer months will be two to three times the capacity of relocated Route 209 (Pa.) as presently planned" and that in New Jersey "severe problems will occur on undercapacity roads southwest of 206". New Jersey subsequently retained Edwards and Kelcey to study existing roads and to project roads needed to service a 10 million visitor load at the DWGNRA. Their projected road network was estimated to cost over 680 million dollars. The Pennsylvania Department of Transportation estimated that the necessary relocation and widening of Route 209 would cost 40 million dollars. Sinden points out that the total cost of roads needed to service the DWGNRA, borne primarily by the States themselves, would be over 700 million dollars - almost twice the cost of the whole Tocks Island Dam project, estimated at 385 million dollars in July, 1974. Governor Cahill (N. J.) asked that the visitor load be cut to 4 million, thus reducing the estimated cost for a new road network in New Jersey to 370 million dollars. DRBC has incorporated this change in its plan, but 10 million visitors are still authorized by Congress.

Under the original plan 150,000 people were to visit the park on a summer Sunday. According to Sinden, this number would require more than eight lanes of superhighway (one way) running at full capacity over a three-hour arrival period. This assumes 3 people per car and 2000 cars per hour for the capacity of an express lane. He further points out that "In terms of public transportation, this is four times the daily commuter load carried by the entire Erie-Lackawanna railroad system". He urges that public transportation be seriously considered. In addition to bus service, he suggests that the Erie-Lackawanna Railroad which runs from Hoboken through the Water Gap to Stroudsberg be adapted for week-end passenger service to the DWGNRA.

FISHING AND HUNTING: The populations of fish and wildlife which would be present after completion of the proposed reservoir would be different from those now found. This is discussed more fully under "Ecological Concerns".

HISTORICAL AND ARCHEOLOGICAL CONCERNS: Creation of the reservoir would flood many areas and buildings of historical and archeological significance. Some could be relocated, but others would be permanently lost. Further specific studies are being made in this area of concern.

ALTERNATIVES TO THE DWGNRA AS PRESENTLY CONCEIVED

Opponents of recreation based on the reservoir strongly support the Park with a free-flowing River. Candeub, Fleissig and Associates were retained by the Save the Delaware Coalition to design such a Park. As mentioned above, the National Park Service is also developing Park Plans based on a free-flowing River. They are considering as well, the alternatives of a National Park or a National Historical Park. Other recreation areas, either existing or proposed, also serve the same region. For instance, the new Gateway National Park opens up new areas accessible by public transportation to residents of New York City and Northern New Jersey. DRBC in its Comprehensive Plan lists tributary dams in the Basin which will provide water-based recreation. The New Jersey shore is within easy reach of the whole metropolitan region from New York to Philadelphia, both by car and by adequate public transportation.

ECOLOGICAL CONCERNS

There are five major areas of environmental concern, according to Feiveson in Report No. 1 on "The Tocks Island Dam Controversy". These are: transfer of a natural stretch of river to an artificial lake; possibility of eutrophication in the reservoir; concern that reservoir drawdowns will expose ugly mudflats; effect of dam and still water of reservoir on migratory fish passage (primarily the shad); effect of reservoir release schedule on oysters in the Delaware estuary.

DESTRUCTION OF A NATURAL AREA: The fundamental objection of conservationsists is that a natural river system will be turned into an artificial lake. The 75-mile stretch of free-flowing river just above the reservoir site from Port Jervis to Hancock, N. Y. has been proposed by the Interior Department for inclusion in the National Scenic Rivers System, established in the Wild and Scenic River Act of 1968. DRBC has supported this proposal in its Comprehensive Plan and "stated one of the reasons for endorsement was that the designation of the upper Delaware River would enhance the value of the Delaware Water Gap National Recreation Area and help maintain high quality conditions in the Tocks Reservoir". Opponents of the dam suggest that the scenic and recreational river designation be expanded to include the stretch immediately below - from Port Jervis to the Delaware Water Gap - rather than turn it into a reservoir.

EUTROPHICATION: The Council on Environmental Quality was the first to express concern about the possibility of eutrophication upon review of the original Environmental Impact Statement in 1971. Its reservations have still not been satisfied. At least four studies have been done since then to determine the possible effect of eutrophication on the reservoir. Eutrophication occurs when nutrients (primarily phosphates and nitrates) coming into the reservoir provide the necessary ingredients for large-scale algal blooms. These blooms may result in smelly green scum, depending on the degree of eutrophication. There are many chicken farms along the upper Delaware in New York. Runoff from these farms is known to be high in the nutrients which could cause eutrophication in the Tocks Reservoir. New York State has said that it will not disturb the poultry farms.

In their preliminary draft, the Consultants conclude: "It is our professional judgement that the Tocks Island Lake will be, on the average, eutrophic and seriously eutrophic in the upper sections of the lake because this portion will receive the greatest impact from the influx of nutrients. However, the impact of eutrophic conditions upon the contemplated uses of the lake is not expected to be seriously detrimental. The major exception to this statement is that the additional biological oxygen demand (BOD) developed by the heavy algae concentrations that are anticipated in this eutrophic condition may seriously deplete the oxygen in the hypolimnion and be detrimental to the cold water, bottom dwelling fish and the deep-dwelling benthos. This potential problem is amplified by the possibility that the lake will receive several tons of water-soaked leaves from the forest land surrounding the impoundment . . . . There is insufficient information available to attempt any computation of this effect at this time."

DRAWDOWN: Proposed pumped storage operation and water releases from the reservoir would cause drawdowns, both daily and seasonally. The Corps of Engineers believes that these anticipated drawdowns would not interfere with recreational use of the reservoir. According to the Corps, the main recreation sites - beaches, boat ramps, beaching areas, and fishing piers - have been designed to accommodate a wide range of elevations, and might experience 20% reduction in use only about 1 year in ten. The Corps' explanation satisfied the CEQ that drawdown would not be a serious problem.

Opponents of the dam disagree. They contend that drawdown would expose ugly mudflats at the northern end of the proposed reservoir; that it would then be difficult to establish vegetation and that this would make soil erosion a problem. Further, isolated pools of water allegedly would be scattered around the empty lake bottom, providing breeding grounds for mosquitoes. The Consultants recognize that pools would probably exist, but feel that mosquitoes would not be a problem. The Consultants in their preliminary draft report: "A drop of 5 feet of the water level would expose approximately 1,000 acres. A drop of 20 feet, close to the expected yearly maximum, would expose 3,600 acres or approximately 158,000,000 sq. feet. Much of this square footage would be situated within the 80 percent of shoreline sidings

considered steep. A sizeable portion would also be situated within the northern reaches of the lake, which have less slope and would result in mudflats. Vegetation may have difficulty becoming established in any of the areas exposed by the fluctuating water level. With such a large non-vegetative area exposed, sizable amount of erosion could result. Lack of vegetation will increase bank instability". The Consultants also add: "Additional loads of sediments into the lake from the lake sidings would add additional nutrient loads. Levels of eutrophication could therefore be increased above the expected values".

MIGRATORY FISH PASSAGE: The shad is an anadromous fish, one which lives in salt water, but must swim upstream to reach fresh water for spawning. In the Delaware River, the principal spawning grounds of the shad are above Tocks Island. The dam design has incorporated fish ladders to help the shad navigate the dam, but there would still remain 37 miles of still water in the reservoir for the shad to traverse. Both fish ladder and reservoir could cause problems for the shad, adapted to swimming against moving water in a free-flowing river. Opponents feel that the shad fishery in the upper Delaware would eventually be destroyed. The Fish and Wildlife Service have given assurance that experience elsewhere favors continued existence of the shad fishery despite the dam. The Consultant agrees that on some dams fish ladders work, on others they do not. Success or failure seems difficult to predict. (Discussions, Information Meeting held by DRBC on Consultant's Study, April 3, 1975, Trenton, N. J.) The Consultant concludes in the preliminary draft, Chapter IX, that ". . . . even with a successful operating fishway, the loss of spawning habitat inundated by the reservoir, the stress upon adult shad traversing a fishway and large reservoir en route to suitable spawning grounds upstream and upon young shad attempting to move downstream through the reservoir and turbines all but eliminate the possibility that the shad potential of an unobstructed river can be realized."

OYSTERS: The oyster industry is the lower estuary needs natural river flows from April - November 1 to keep the water fresh enough for protection of the natural seed beds from the predator oyster drill. Natural river flows provide a freshened area at the upper end of the estuary where in effect the oyster has a sanctuary free of its major predator. The oyster can survive in fresher water than its enemies. The drill is particularly sensitive to salinity at spawning time, and can be controlled by keeping salinity low from April 1 - July 1. This was recognized by the Corps of Engineers in their agreement on dam operation to guarantee natural river flows for this period. The Delaware estuary has probably the most reliable oyster seed-producing beds on the East Coast, stemming from Colonial times. New Jersey's oyster industry, after a severe production drop in the 50's and early 60's due to over-fishing, followed by a new and devastating oyster disease (MSX), is making a strong come-back with annual yields expected to approach the pre-1950 level, ranging between ¾ and 1 million bushels per year. The Delaware oyster industry, though considerably smaller, is expected to follow a similar trend. During drought periods there is always the danger that water needs elsewhere in the area served by the dam might lead to abrogation of the Corps' agreement for natural river flows between April 1 and July 1, thus threatening the continued existence of the oyster industry.

FURTHER CONCERNS: Further concerns are raised by the Consultant in the Preliminary Draft, Chapter IX. These include changeover of fish species in the reservoir and the loss of terrestrial flora and fauna. Opponents claim that the change from a river to an impoundment will change fish species. This concern appears to be strengthened by the Consultant's Preliminary Draft, which predicts a gradual changeover in species. According to the Fish and Wildlife Service there would be an eventual standing crop of reservoir species, made up of about 43 percent sport fishes, 24 percent rough fishes and 33 percent forage fishes. In this situation eutrophication would be a benefit as part of the food web. The Consultant points out that the Flatbrook River is "the finest trout stream in New Jersey", and that the reser-

voir would inundate about 9.5 miles of its lower reaches. This would "move the trout fishing considerably upstream". The Consultant concludes that "Fishing may be excellent in the reservoir for even a lengthy period of time. Nonetheless, frame of reference should not be lost by the discussion of pounds/acre or man/days. The potential of the Delaware River and inundated tributaries has yet to be realized. Undeniably, the flowing waters in this region represent an extremely valuable and diverse fishery in its present condition."

Actual construction and the flooding of 10,000 acres of land for the reservoir is viewed by opponents as very damaging to the local flora and fauna. The Consultant agrees that this area does contain unique habitat and that certain species might no longer exist in the area if the dam is built. He further states that "wildlife associated with an aquatic environment will be benefited", such as muskrat, raccoon, mink, beaver, frogs, water fowl and shorebirds. However he points out that "The reservoir will force the (land) animals up onto the hills and over to adjacent areas to hunt for food. Here, the habitat is less suitable and niches currently occupied. Parking lots, campgrounds and resorts will further lessen available habitat area. The 880 acres mitigation land suggested by the Fish and Wildlife Service is not as productive a habitat and would have to be managed by plantings, clearing, and burning to increase its carrying capacity."

BENEFIT–COST ANALYSIS

Benefit–cost analysis is a technique for assessing the economic utility of a public investment project to indicate whether a specific expenditure should be undertaken. It originated in United States federal administrative agencies, and in particular for water resources projects. In 1902 the Rivers and Harbors Act required that engineering reports for projects proposed by the Army Corps of Engineers include a discussion of benefits and costs, but it was first formalized in the Flood Control Act of 1936, to aid Congress in deciding which projects to fund. The formula is very specific and rigid and does not include many intangibles of side-effects which in final analysis may be of equal importance. A favorable benefit over cost ratio must be greater than one for benefits to exceed costs.

The Corps of Engineers has prepared a Benefit/Cost analysis for the Tocks Dam Project.

Below is given the Summary Benefit-Cost Calculations for the Tocks Project, (based on discount rate of 3 1/8%, a project life of 100 years; at July, 1972 prices).

AVERAGE ANNUAL BENEFITS

(Millions of Dollars)

	Benefits	Costs	% of Total
Recreation	11.7 *		44
Water Supply	9.0		33.7
Flood Control	2.9		10.8
Power (conventional)	3.1		11.6
	26.7	16.4	100.1

The figures given are one benefit-cost ration which has been preared. All of these show recreation as providing close to half the benefits of the project.

The original Tocks Project was figured at 3 1/8% discount rate; Congress has increased the discount rate to 5 5/8% for projects authorized in 1975. How this will affect Tocks is uncertain.

*This figure is based on 10,000,000 annual visits. This has now been cut to 4,000,000.

Opponents of the project feel that the strict formula for figuring benefits and costs exclude many human and ecological costs and benefits. Not included are non-federal costs (and benefits) such as road and sewage construction outside recreation area; intangibles such as sense of security enjoyed by flood plain inhabitants when dam is built; destruction of ecosystem above dam.

Opponents are particularly disturbed about the benefits ascribed to recreation. They point out that the dam was originally conceived for flood control and water supply with recreation being added later – yet it accounts for almost half the benefits from the project. They also question the manner in which the number of projected visitors is calculated, and the validity of ascribing $1.35 as the benefit from each visitor.

GENERAL CONCERNS

It is obvious that the building of the dam would provide benefits in the areas of water supply, power, recreation, and flood control. For all gains there are some losses.

Concern has been expressed for the loss of tax retables, farmland, historical areas, and a potentially usable railroad bed. There will also be pressures placed upon local governments by the need to provide supporting services to the recreation area. The ecological value of the loss of a free-flowing stream cannot be quantified, nor can changes in the wildlife of the area.

REPRISE

Can the needs of <u>people,</u> now and in the near future, be reconciled with the demand to preserve our environment? Who should make the decision that resolves the conflict between human needs and natural resources?

Do we have to choose between enough water for drinking and washing, for energy generation and industrial production, plus protection from flood and drought, and the delights of a free-flowing river? How can we compromise and coexist?

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GLOSSARY

abatement	Reducing the degree or intensity of pollution
acre feet	The amount of water which covers an acre of ground to a depth of 1 foot; equal to 325,850 gallons
agricultural pollution	The liquid and solid wastes from all types of farming, including runoff of pesticides, fertilizers, and feedlots; also erosion, plow dust and animal manure
anaerobic	Refers to life processes that occur in the absence of oxygen
aquifer	An underbed stratum of earth or stone that contains water
BOD (biochemical oxygen demand)	A measure of the amount of oxygen consumed in the biological processes that break down organic matter in water. The greater the BOD, the greater the pollution
COD (chemical oxygen demand)	A measure of the amount of oxygen needed to oxidize organic and inorganic compounds. Another measure of pollution
cooling tower	A device to remove heat from water used in industrial operations. Notably power generation
depletive use	Any water removed from basin and not returned; such as evaporation, or diversion for water supply
diversion	Water routed outside its normal basin
DO (dissolved oxygen)	Oxygen dissolved in water or sewage
effluent	A discharge of liquid pollutants into the environment, completely treated or in a natural state. Used in regard to discharge into waters
erosion	The wearing away of land surface by wind or water. Often intensified by man's land clearing practices
eutrophication	The normally slow aging process by which a lake evolves into a bog or marsh and ultimately becomes land. During eutrophication a lake becomes rich in nutrients, especially phosphorus and nitrogen. May become accelerated by human activities
fecal coliform bacteria	Intestinal organisms. Presence in water indicates pollution -- potentially dangerous contamination
fossil fuels	Coal, oil and natural gas. So called because derived from remains of ancient plant and animal life
fungi	Small microscopic plants without chlorphyll. Useful in stabilizing sewage
groundwater	The supply of fresh water beneath the earth's surface in an aquifer or soil that forms a natural reservoir
hydrology	Science dealing with properties of water such as distribution and circulation of rain and melting snow
impoundment	A body of water confined by a dam, dike, floodgate or other barrier
leaching	Process by which soluble materials such as pesticides, fertilizers and contaminants, are washed into lower layers of soil and thence carried along by water
mgd	Millions of gallons per day. Commonly used to express rate of flow
nuclear power plant	Any device, machine or assembly converting nuclear energy into mechanical or electrical power
percolation	Downward flow or infiltration of water through pores of rock or soil
potable water	Water suitable for drinking or cooking
pumped storage	Reservoir of water pumped during off peak energy times to generate electricity during peak hours
reservoir	A pond, lake, tank or basin, natural or manmade, used for the storage, regulation and control of water
riparian rights	Rights of a landowner to the water bordering his property, including the right to prevent diversion or misuse of upstream water
river basin	The total area drained by a river and its tributaries
runoff	The portion of rainfall, melted snow or irrigation water that flows across ground and eventually is returned to the stream

salt water intrusion	Invasion of salt water into a body of fresh water
silt	Finely divided particles of rock or soil. Often carried in a cloudy suspension of water and deposited as sediment
sludge	Solids removed from sewage during waste treatment
thermal pollution	Degradation of water quality by introduction of heated effluent
watershed	The area drained from a given stream
water table	The upper level of ground water
water quality standards	A plan for water quality management containing four major elements: the use of water (recreation, drinking, industrial and agricultural, fish and wildlife criteria to protect those uses implementation plans anti-degradation statement to protect existing high quality waters

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LIST OF LEAGUES OF WOMEN VOTERS IN THE DELAWARE RIVER BASIN SERVICE AREA

DELAWARE

Greater Wilmington
Greater Dover
Greater Laurel
Newark

NEW YORK

Babylon
Bedford-Lewisboro
Briarcliff—Ossining
Bronxville
Brookhaven South
Chenango County
Croton—Cortland
Dobbs Ferry
Five Towns
Glen Cove
Great Neck
Greenburgh
Greater Poughkeepsie
Harrison
Hastings-on-Hudson
Hempstead Central
Hempstead East
Hempstead South
Huntington
Irvington
Larchmont
Long Beach
Mamaroneck
Mid-Ulster County
Middletown—Wallkill
Mount Kisco
Mount Pleasant
Mount Vernon
New Castle
New Paltz
New Rochelle
New York City
North Brookhaven
North Castle
North Rockland
North Salem
Orange County South
Oyster Bay
Pelham
Port Washington—Manhasset
Pound Ridge
Putnam County East
Riverhead—Southold
Roslyn
Rye
Saugerties
Scarsdale
Sewanhaka
Smithtown
Somers
Tri-Town of Rockland County
Westbury
White Plains
Yonkers
Yorktown

ILO

Nassau County
Suffolk County
Westchester County

PENNSYLVANIA

Abington—Cheltenham—Jenkintown
Allentown
Bethlehem Area
Doylestown Area
Easton Area
Haverford Township
Lower Merion & Narbeth
Marple—Newtown Townships
Monroe County
Nether Providence Township
New Hope Area
Newtown—Middletown Area
The North Penn
Northeastern Montgomery County
Philadelphia
Pottstown Area
Radnor Township
Southern Chester County
Springfield
Springfield Township
Swarthmore
Upper Darby Area
Upper Main Line
Upper Merion
Upper Providence—Middletown
Warminster—Upper Southhampton
West Chester Area
Whitemarsh & Plymouth Townships
Yardley Area

ILO

Bucks County Council
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Delaware County Council
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NEW JERSEY

Atlantic City
Bergenfield
Berkeley Heights
Bernards Township
Bloomfield
Boonton—Montville
Bridgewater-Branchburg Area
Camden County
Chatham
Chatham Township
Chesters—Mendhams
Clifton
Cranford
Cumberland County
Denville
East Brunswick
East Orange
East Windsor—Highstown
Edison Township
Englewood
Ewing Township
Fair Lawn
Florham Park
Franklin Township
Glen Rock
Gloucester County
Hackettstown Area
Hamilton Township
Highland Park
Holmdel—Colts Neck
Hopewell Valley
Hunterdon County
Jersey City
Kinnelon
Lawrence Township
Leonia
Linden
Livingston
Madison
Madison Township
Maplewood
Matawan
Medford—Medford Lakes
Metuchen
Middlesex
Middletown Township
Millburn
Montclair—Glen Ridge
Morristown
Morristown Area
Mountain Lakes
New Brunswick Area
New Providence
North Plainfield
Northern Valley
Nutley
Ocean City
Ocean County
Orange
Paramus
Par—Troy Hills
Pascack Valley
Passaic
Paterson
Pequannock Township
Perth Amboy
Piscataway
Plainfield
Princeton Area
Ramapo Area
Ramsey Area
Randolph Township
Red Bank Area
Ridgewood
Ringwood
River Edge—Oradell
Rockaway Township
Roselle—Roselle Park
Roxbury Area
Salem County
South Orange
Sparta
Springfield
Summit
Teaneck
Tenafly
Township Of Ocean
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Union
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Senator GRAVEL. Harold Lockwood, Jr.?

STATEMENT OF HAROLD A. LOCKWOOD, JR., REPRESENTING THE SAVE THE DELAWARE COALITION AND THE SIERRA CLUB, PHILADELPHIA, PA.

Mr. LOCKWOOD. Good morning, Mr. Chairman, distinguished members of this committee and staff, members of the press, ladies and gentlemen.

My name is Harold Lockwood. I am here on behalf of the Save the Delaware Coalition, consisting of 61 civic and conservation-oriented organizations, including such diverse elements as the Phillipsburg N.J., Jaycees, the United Automobile Workers, the Sierra Club, Wilderness Society, and others. We appreciate this opportunity to be here today, but we regret there isn't enough time so others could be here and present statements, some of which have been submitted in writing.

I have earlier submitted a statement on behalf of the New Jersey Federation of Sportsmen, since they were not able to be here.

The New Jersey Federation consists of 700 separate clubs and 30,000 members.

Senator RANDOLPH. You do understand, Mr. Lockwood, that everyone has the opportunity to file a statement?

Mr. LOCKWOOD. Yes, sir.

Senator RANDOLPH. I just want the record to show that we are attempting to have a very thorough hearing in these 2 days, supplemented, of course, by statements for the record. It could not be otherwise.

Mr. LOCKWOOD. We appreciate that. I am going to divert from my prepared statement for a few minutes, gentlemen, simply to point out this project was authorized some 14 years ago. There have been studies and studies and restudies ever since then. Great controversy and chaos has raged about it. There have been enough studies to line the bottom of this 37-mile reservoir.

Then on August 8, 1974, the Congress finally said, at the request of the Delaware River Basin Commission, "All right. We will give you one more comprehensive unbiased study. We are going to give you $1.5 million. We want you to complete this and submit a definitive recommendation to the Congress within 1 year."

That study was completed by URS/Madigan-Praeger under the direction of the Corps of Engineers and the Delaware River Basin Commission in July of 1975. On July 31 the Governors, sitting as the Delaware River Basin Commission, voted against construction of the Tocks Island Dam, Governor Shapp of Pennsylvania dissenting.

The Corps since then has recommended deauthorization. The Council on Environmental Quality; the Environmental Protection Agency; seven of the eight basin States' Senators have cosponsored Senate bill 3106, the companion bill in the House, H.R. 14162 has 20 sponsors on that, including all members representing the directly impacted areas in the Delaware Basin with the exception of Mr. McDade——

Senator RANDOLPH. May I ask a question? You refer to a passage pending in the House. What is the status of that legislation?

Mr. LOCKWOOD. That, sir, has been referred, to the best of my knowledge, to the Water Resources Committee of the Public Works Committee of the House.

Senator RANDOLPH. When was the measure introduced?

Mr. LOCKWOOD. That was introduced in March. I believe it was March 11 of this year, sir.

Senator RANDOLPH. Thank you.

Mr. LOCKWOOD. As I was about to say, Mr. McDade is the only representative of the areas directly impacted who is not a cosponsor of that House bill. His remarks and position are set forth in a letter of May 29, 1974, appended to my written testimony, in which in a letter to his colleagues in New York and Pennsylvania he refers to this project as a "potential $1 billion boondoggle in my back yard."

Mr. McDade, for other reasons, has not chosen to cosponsor this measure. He is interested in relocation of route 209 and wants to see that occur before deauthorization.

What I am saying, gentlemen, is that we have rehashed, restudied, reviewed, reanalyzed all of this for many years. We are here today and we hear people still going over this. The facts are still there. They are not the facts of the Save the Delaware Coalition. They are the facts of studies that have been made at the direction of Congress, by Federal agencies for 14 years.

I think we should look at those facts and not particularly what any particular witness says about them. I do submit that if we look at these facts, if we look at the analysis which appears in the Madigan-Praeger report of 1975—and I do hope that this report is read, because part of the problem was from 1962 until 1970 voluminous reports were made, studies were conducted at taxpayers' expense; and, gentlemen, you may not believe it, but people just had not read them.

Highly placed State and Federal officials were surprised at what appeared in the Tocks Island Region Environmental Study in 1970, done by Weston and Associates, clearly pointing out, that excess eutrophication was going to occur in this reservoir. Everybody was surprised to learn this, that it was even in the report.

Many other reports still are unread. But we submit that if one reads the URS/Madigan-Praeger report, it will clearly indicate that all of the intended functions of the Tocks Island Dam project can be feasibly and viably met by other alternatives.

In addition, it will indicate that these alternative functions can be carried out without sustaining the environmental and economic adverse impacts implicit in the Tocks project.

As indicated by the Madigan-Praeger report, the key to flood control is flood plain management, not structural supports. And flood plain management would protect against more potential damage than Tocks at much less cost. Less than 22 percent of the 1955 flood damages occurred in areas Tocks would protect. The dam would protect against 50 percent of the potential damage but flood plain management 78, or 18 percent more.

Tocks flood control costs would be approximately $74 million but floodplain management only $17 million, or $57 million less.

Today only half as many structures occupy the flood plain as in 1955. Moreover, flood plain management is economically and environmentally sound.

It has been noted before that during the 1955 floods, no loss of life occurred on the Delaware but rather on the tributaries. Tocks would provide no protection from local storms downstream from the dam.

Another major function of the Tocks Dam is water supply. Again, looking at the comprehensive study, water supply needs are primarily those for northern New Jersey and for the Philadelphia area. The water supply needs can feasibly be met by other alternatives. Appended to my statement is a chart taken from a confidential report submitted to Governor Brendan Byrne of New Jersey from the New Jersey Department of Environmental Protection. This report will show that, based on medium growth projections, the State of New Jersey can obtain all the water it needs at a savings as compared to Tocks at a savings to New Jersey taxpayers of $115 million, not including Federal taxes which they would be paying on account of Tocks.

The figures are there, and I would submit to the committee that a reference to the full report and a reference to the New Jersey Department of Environmental Protection will elicit the full report. The results have been made public—for instance, at the League of Women Voters workshop on April 29 of this year.

Another major stated need for water supply is water from the Philadelphia-Camden area. Again, this is not a matter of quantity, but rather the key is quality. In the Philadelphia area we are sitting on a tidal lake of approximately 40 billion gallons of water that moves up and down on a tidal excursion. We have been reusing that water, and we will have to continue reusing that water or there will never be enough in the Delaware, Tocks or no Tocks. The key is reuse and the key is quality. And the key of quality is the quality of water that is discharged back into the Delaware by the industries and municipalities in the Philadelphia area.

Now, Mr. Randolph asked one reason why or wanted to know why the city of Philadelphia and others were supporting the Tocks project and against deauthorization. Gentlemen, I submit that the major reason is that the city of Philadelphia and many of the industries in the estuary do not want to bear the cost of increasing the quality of the water that they dump back into the Delaware River.

For a long time, up until 3 years ago, although flow augmentation for the purposes of diluting pollution was a stated purpose of Tocks project, it is notable that it is no longer a stated purpose of the Tocks project and was removed. It is no longer a legally acceptable purpose for a major water resource project.

But some of these people still believe if we have Tocks water running down there, we are going to help the pollution. They, therefore, are not going to have to incur greater expense in improving the quality of the water they dump back in the Delaware and other streams.

I suggest this is one of the major reasons why Philadelphia and other municipalities and some industries on the Delaware are in favor of the Tocks project.

A question was just raised with respect to salinity control. Again, this is all spelled out in the Madigan-Praeger report in chapter III, if one will take the trouble to read it. And that report clearly states that the return interval statistic for a drought of the magnitude of the 1960's creating any major problem is approximately once every 500 years.

Now, what they did was make four runs at different places, based on the Philadelphia intake, at Torresdale, at pier 11, at the mouth of the Schuylkill, and at the southernmost limit of the influence on Camden.

In the Madigan-Praeger report, page 17t, they state, "The most significant water supply need in the basin, however, is the flow necessary to prevent serious salinity intrusion in the estuary." They then go on to state:

> The 3,000-cubic-feet-per-second low-flow requirement specified in the DRBC comprehensive plan, based on the methodology applied in this study to evaluate salinity intrusion was found to be higher than necessary for salinity protection purposes.

Based upon a top priority being given to maintenance of a flow of 1,750 cubic feet a second at Montague and, second, 800 million gallons a day to the city of New York, and to maintain the DRBC level of salinity concentration of 50—not 250—milligrams per liter at Torresdale, the probability of salinity intrusion would not occur but once in approximately every 100 years. But even where it exceeded that amount, it would not exceed it by more than 65 milligrams per liter.

Now, this is based on 50 milligrams, not 250 milligrams, which is the Public Health Service standard. And this is based on taste, not health. For 250 milligrams there would be a 500-year return interval. All of these figures are in the report. They are simply there for somebody to analyze, for somebody to read. And we certainly hope the decision-makers on this issue or their staff will do so.

There has been a question raised—I think Congressman Frank Thompson raised it on Friday—that when Governor Byrne rejected the construction of the Tocks Island Dam, New Jersey therefore forfeited, under the Supreme Court's decree of 1955, its right to divert water at the rate of 100 million gallons a day.

There is appended to my written statement a legal opinion from one of the foremost law firms in the country which negates that statement, which is, frankly, without legal merit.

The question of power has been referred to by Mr. Johnson, chairman of the PUC. He refers to what appear to be astronomical figures. It is in the Madigan-Praegar report that the firm capacity of conventional over-the-dam hydroelectric power will only be 38 megawatts. The figure is 70 megawatts that was referred to by Mrs. Batchelder, but the firm capacity is considerably less—that is, 38 megawatts.

Although not an authorized purpose of the project, the related pump storage facilities planned on Kittatinny Ridge would destroy sections of the Appalachian Trail, Worthington State Park, and threaten Sunfish Pond, a pristine glacial lake and registered national natural landmark. Requiring 3 kilowatts of power to generate only 2, pumped storage would be the main cause of daily water level fluctuations, turbidity, siltation, and temperature changes. Combined cycle combustion turbines, peakload pricing and other sites are feasible alternatives.

Power has never been more than 11 percent of the total project benefit. Recreation, on the other hand, has in a sense been the tail wagging the dog and historically has been 50 percent of the total project benefits. But at least since 1971 the National Park Service

has confirmed that recreation of a much higher quality and of a much greater variety could be provided without the Tocks Dam than with the Tocks Dam and is presently planning along those lines.

Construction of the dam, on the other hand, would seriously threaten recreational quality, particularly swimming, boating, and fishing, because the reservoir would become polluted due to excess eutrophication.

On Friday, Dr. Goddard, Pennsylvania's Secretary of Environmental Resources, remarked, "Well, there are other lakes and there is no euthrophication there." Gentlemen, that is partially true. In the Allegheny Reservoir there is eutrophication. In the reservoirs upstream in New York State there is excess eutrophication, even to the extent that New York City has to be careful which one of the lakes at any given time it takes its water from because of the excess eutrophiod quality of that water.

Furthermore, there are differences between the Allegheny Reservoir and some other reservoirs, at least in the State of Pennsylvania. They do not have the situation where there is generated sewage which is the equivalent of sewage from a ctiy of 400,000 people coming into the river. And this, again, is taken from another study which I think many people have not bothered to read, which was done for the Corps of Engineers by Jack McCormick Associates, in September of 1971. Those were their figures. Those were the corps' figures. They are not ours.

When the dam is constructed, it then acts as a trap, as a sink. It concentrates the nitrates, the phosphorus. This is not the situation that is parallel in other dams. So recreation in the dam would be adversely affected, and in some cases reduced to a minimal part of the total benefits.

In addition, there was another study that was done for the consultants on this study by Dr. Fuhs of New York State. He said this would be virtually a dead lake; this would not be a lake or reservoir which would be attractive for things directly related to water recreation.

It has been mentioned here today—I think by Mr. Johnson again—that this would provide a great source of recreation for the teeming millions of megalopolis from Boston to Washington. It is true that under the original plan it was projected that there would be 10.6 million annual visitors. This could be devastating. For instance, annual visitors per gross acre at Tocks would be 169 times what they are in Yellowstone National Park, and Yellowstone is 31 times larger than what the Tocks recreation area would be.

The visitation at Tocks would be 47 times what it is in Yosemite National Park, and it is common knowledge the problems they have had there. And, again, Yosemite has an area 11 times larger than the Delaware recreation area.

Senator GRAVEL. I have a problem, that we are going to be taking up legislation on the floor. I am here to chair the meeting, and I have got seven other witnesses. I wonder, if this matter is covered in your written statement, if you couldn't find a way to abbreviate this testimony. They have come from some distance also to testify.

Mr. LOCKWOOD. Yes, thank you. One other matter I would like to comment on, and that is the matter of economics. This project has never been justified from a point of economics, and even the con-

sultants variously find that the cost-benefit ratio varies from 0.66 to 2.48 and that the economic viability is similarly questioned by the consultants, as it has been by others.

In short, the decision, we submit, that the Congress requested in August 1974 has been given to it by the Members of the Senate from the basin States, from the Members of the Congress from the basin States, by the Corps of Engineers, by the Governors. The decision is now yours, and we suggest and urge that it be to deauthorize the Tocks project so that we can go on and get on with meaningful planning.

And very quickly I again read from the comprehensive study on what are the reasons why we need to deauthorize. This is taken from a summary by the Corps' consultants in which they state:

> Continued indecision will adversely affect needed present and future programs in such areas as nonstructural flood protection, water supply, pollution control, regional and local planning and land use controls.

We need to have deauthorization so we can get on with meaningful planning and finally, and at last avoid the confusion and chaos of the last 14 years.

Thank you for your attention and time.

[Mr. Lockwood's written statement follows:]



SAVE THE DELAWARE COALITION
2126 Land Title Building
Philadelphia, Pa. 19110

BEFORE THE

UNITED STATES SENATE,
COMMITTEE ON PUBLIC WORKS,
SUBCOMMITTEE ON WATER RESOURCES

On S. 3106 - To Terminate Authorization
For The Tocks Island Reservoir Project

STATEMENT OF SAVE THE DELAWARE COALITION

July 26, 1976

Submitted by:
Harold A. Lockwood, Jr.

BEFORE THE

UNITED STATES SENATE,
COMMITTEE ON PUBLIC WORKS,
SUBCOMMITTEE ON WATER RESOURCES

On S. 3106 - To Terminate Authorization
For The Tocks Island Reservoir Project

July 26, 1976

STATEMENT OF SAVE THE DELAWARE COALITION

My name is Harold A. Lockwood, Jr. I appreciate this opportunity to present this statement on behalf of the Save the Delaware Coalition consisting of 61 civic and conservation oriented organizations, local and national in scope, including large membership in the Delaware River Basin.

For 265 miles from the Catskill Mountains in New York to tidewater, the Delaware River is a rarity in the Northeast--a free flowing river. Flowing through the fertile Minisink Valley, the river is relatively unpolluted, rich in beauty, wildlife, history, archaeology and recreational opportunity.

Under the Flood Control Act of 1962, Congress authorized construction by the Corps of Engineers of a 160-foot high earthen dam at Tocks Island, five miles above the spectacular Delaware Water Gap, which would create a 37-mile slack-water impoundment stretching up to Port Jervis, N. Y.

Impetus for the Dam came from the freak flooding of the Delaware in August, 1955, when hurricanes Connie and Diane struck in rapid succession. The Dam was also intended to provide water supply and hydroelectric power. Recreation was added in 1965 with authorization for the Delaware Water Gap National Recreation Area (DWGNRA) covering 72,000 acres in New Jersey and Pennsylvania.

Following years of controversy and enough studies to virtually line the bottom of the reservoir, in August, 1974, Congress authorized yet another study at a cost of $1.5 million under the direction of the Corps of Engineers in cooperation with the Delaware River Basin Commission. The Conferees further directed that the new comprehensive analysis be completed and a definitive recommendation made to Congress within twelve months. See House Report No. 93-1274, 93rd Congress, 2nd Session, 8 August, 1974. That study, consisting of five volumes and a Summary, was completed in July, 1975.

On July 31, 1975, based upon the consultants' findings, three of the four Governors as members of the Delaware River Basin Commission voted against construction funding with Governor Shapp of Pennsylvania dissenting.

CEQ, EPA and the Corps of Engineers have recommended de-authorization. Copies of their respective letters are attached hereto.

Analysis of the comprehensive study discloses and supports the following conclusions:

Irreplaceable losses which could be saved without Tocks include: the free flowing Delaware, more than 20,565 acres of wildlife habitat and flooded recreational and historic areas, numerous species of wildlife, an excellent game fishery and shad run, hundreds of historic sites and structures, more than 100 known archaeological sites, including evidence of Paleo-Indian culture as early as 10,000 B.C., and the quiet rustic character of the entire region, which would be drastically changed by 10.6 million annual visitors and resulting degradation.

FLOOD CONTROL. The key to flood control is flood plain management which would protect against more potential damage than Tocks at much less cost. Less than 22% of the 1955 flood damages occurred in areas Tocks would protect. The dam would protect against 60% of the potential damage but flood plain management 78% or 18% more. Tocks flood control costs would be $74 million but flood plain management only $17 million or $57 million less. Today only half as many structures occupy the flood plain as in 1955. Moreover, flood plain management is environmentally sound. During the 1955 flood no lives were lost on the Delaware and approximately 78% of the damage occurred in areas Tocks would not have protected. Tocks would provide no protection from local storms downstream of the Dam.

WATER SUPPLY. Water supply needs can be feasibly met by high flow skimming using New Jersey's Round Valley Reservoir, alternative sources in N. J. and N. Y., and recycling and conservation measures. The need for low flow augmentation to protect the Philadelphia and Camden water supplies from salt intrusion is "substantially discounted" by the recent study for the Corps of Engineers which concluded that, even in this remote event, the Philadelphia intake can be moved upstream and Camden has alternative supplies.

ELECTRIC POWER. Hydroelectric power with a firm capacity of only 38 MW would be minimal. Although not an authorized purpose of the

the Tocks Project, a related pumped storage facility to provide peeking power is planned on Kittatinny Ridge which would destroy sections of the Appalachian Trail, Worthington State Park and threaten Sunfish Pond, a pristine glacial lake and registered National Natural Landmark. Requiring 3 KW of power to generate only 2, pumped storage would be the main cause of daily water level fluctuations, turbidity, siltation, and temperature changes. Combined cycle combustion turbines, peak load pricing and other sites are feasible alternatives.

RECREATION. The splendid recreational potential can be realized in greater variety and quality without Tocks. Construction of the Dam would seriously threaten recreational quality, particularly swimming, boating and fishing because the reservoir would become polluted due to excess eutrophication. Water level changes would leave debris littered mudflats instead of the clear water expected. The irreplaceable losses previously listed would further limit the potential, quality and variety of recreation. Adverse impacts of 10.6 million annual visitors could be devastating. Annual visits per gross acre at Tocks would be 169 times Yellowstone, 31 times larger than Tocks, and 47 times Yosemite, 11 times larger than Tocks.

EUTROPHICATION. Numerous studies have confirmed that the Tocks Reservoir would become rapidly polluted through excess eutrophication. Drainage of agricultural effluent from the upper Delaware estimated as the equivalent of sewage from a city of 400,000 cannot be identified, collected and treated like municipal sewage because it is not discharged through pipes but drains over and through the soil itself. Not a serious problem now because the river is free flowing, these effluents would become concentrated in the relatively stagnant reservoir acting as a sink. Rapid growth of algae, loss of game fish and serious degradation of the recreational potential would follow.

ECONOMICS. Justification on economic grounds is still questionable. Initial cost estimates of $90 million have escalated to $400 million. CEQ Chairman, Russell Peterson and others estimate cost at $1 billion. As required by Federal law, benefits must at least equal costs. At an unrealistic interest rate of 3 1/8%, the Corps of Engineers' latest benefit cost ratio is 1.6 which the Corps' consultants now calculate variously between 0.66 and 2.48. The shifting benefit cost ratio and application of questionable factors indicate that costs may well exceed benefits. Claims that the Tocks Project would stimulate economic development and employment are also tenuous as disclosed by recent studies of similar projects showing that more employment could be provided by applying the same funds to more productive purposes.

ROUTE 209 RELOCATION. Additional controversy exists respecting this proposal which has been included as Section 4 of S. 3106. We must emphasize that our primary concern has been and continues to be deauthorization of the Tocks Island Dam Project. The question of Route 209 relocation should stand or fall on its own merits. Having said this, we fully recognize that Route 209 is a hazardous highway and additionally, its continued existence running through the park would adversely affect the integrity and administration of the park. We also recognize that relocation would create adverse economic and environmental impacts. Although it would appear necessary to relocate Route 209, this is a question which, as previously stated, should be resolved independently of the Tocks Project. However, we call the Committee's attention to §2(b) of S. 3106 under which any unexpended appropriation for the Tocks Project, including Route 209 relocation, would be transferred to the Secretary of the Interior for that purpose.

We now urge you to bring an end to this long standing controversy so that we can proceed with the meaningful planning of alternatives so badly needed but deterred so long as Tocks remains on the books.

As the consultants on the Comprehensive Study warned at page iv of the Summary, "Continued indecision will adversely affect needed present and future programs in such areas as nonstructural flood protection, water supply, pollution control, regional and local planning and land use controls."

Your distinguished colleagues from New York, Pennsylvania and Delaware have made their decision joining Senator Case as co-sponsors of this bill.

Twenty members of the House have recorded their decision joining Mrs. Fenwick of New Jersey as co-sponsors of a companion bill, H.R. 12462.

These members include representatives of each of the directly impacted counties except Mr. McDade of Pennsylvania. But he, too, has indicated his position in a letter of May 29, 1974 to all Pennsylvania and New York members requesting their support to "avoid a potential $1 billion disaster in my back yard."

The decision is now yours. Thank you for your attention and anticipated consideration.

76-797 O - 76 - 14

EXECUTIVE OFFICE OF THE PRESIDENT
COUNCIL ON ENVIRONMENTAL QUALITY
722 JACKSON PLACE, N. W.
WASHINGTON, D. C. 20006

July 29, 1975

Dear Governor Byrne: (Carey, Rhoads, Tunnell)

As you know, the Council on Environmental Quality has had a continuing interest in the proposed Tocks Island Lake Project. We have been concerned in particular that water quality and land use aspects of the project be carefully evaluated, and that alternatives be adequately considered.

We have reviewed the Comprehensive Study of the Tocks Island Lake Project and Alternatives and find it to be, in general, an objective and useful analysis. The study reveals that adverse environmental impacts associated with the Tocks Island Project will be significant and persistent. These include:

-- Potentially severe effects on water quality and, consequently, on proposed recreational uses that would result from the impoundment.

-- Adverse effects on fish and wildlife habitat and other natural and cultural features.

-- Adverse secondary impacts induced by the project, including strip commercial development, loss of open space, increased demands on local communities for public services, and increased pressure for development of downstream flood plain lands.

The study also shows that a range of feasible alternatives exists which, if pursued in appropriate combinations, could meet some or all of the legitimate needs of the region for power production, flood control, water supply, and recreation.

The Council on Environmental Quality believes that the Tocks Island Lake Project should be deauthorized. In its place, we encourage the development of an appropriate combination

of alternative measures which would fulfill the needs of the citizens of the four Delaware River Basin states, while also maintaining and enhancing the existing amenities of the Delaware River Valley.

Sincerely,

Russ Peterson

Russell W. Peterson
Chairman

Honorable Brendan T. Byrne
Governor of the State of New Jersey
State House
Trenton, New Jersey 08625

U.S. Environmental Protection Agency,
Washington, D.C., July 1975.

Hon. Sherman W. Tribbitt,
Governor of Delaware,
Dover, Del.

Dear Governor Tribbitt: I am writing to provide you with the views of the Environmental Protection Agency on the Tocks Island Lake Project which we understand will be the subject of discussion at the July 31, 1975, meeting of the Delaware River Basin Commission. As you know, EPA has in the past expressed severe environmental reservations with this project through our comments on the draft and final environmental impact statements prepared by the Corps of Engineers. We have also reviewed and commented on the draft of the Tocks Island Lake Project Review Study and have recently completed our review of the consultants' final report. While there are a number of shortcomings in the final report, it does provide an improved basis for decisionmaking on the project. From our perspective, the environmental problems which are described in this most recent report on the project would support a decision to deauthorize the Tocks Island Lake Project and to develop alternative programs to meet the needs of the residents of the Delaware River Basin and surrounding areas.

Our major concern with the project continues to be the substantial risk of eutrophication of the proposed reservoir and its attendant adverse effect on the recreational benefits attributable to the project. This concern is reflected in the final report (page IX–98) where it is stated that "Eutrophication, to the extent predicted for Tocks Island Lake, will have a detrimental effect upon the use of the lake for recreational purposes." The adverse effects of eutrophication and drawdown on recreational uses on the project have not been factored into the benefit-cost analyses.

In addition, we have expressed concerns over the secondary effects of the project. The final report provides an excellent discussion of the land use aspects of the project. However, no assurance is given that predicted adverse environmental impacts of the project will be eliminated or reduced through design and post-project operational practices if the project is implemented.

We believe that the study report did a commendable job of identifying a wide range of alternatives to each of the project functions; however, we do not agree with the analyses of needs. In our view, the report overemphasizes the needs which could be satisfied with the benefits from the project, while at the same time it underestimates the ability of available alternatives to satisfy these needs. A summary of our views on the proposed project as presented in the consultants' final report is as follows:

The flood control benefits are overstated since another flood of the magnitude of the 1955 flood would cause significantly less damage because of improvements already made.

The recreation benefits are overstated because they fail to reflect reservoir drawdown and the projected eutrophication of the impoundment.

The water supply benefits, while real, can be satisfied by a number of alternatives with less severe impacts than the Tocks Island Project.

The electric power function can be replaced by 1300 MW of combined cycle capacity.

It is our view that the needs analysis for the project fails to include some major factors which are critical to the purposes of this project, such as reduced flood risks and the availability of alternative means to satisfy the needs of the area. In addition, the benefits from the project are projected optimistically in the face of predicted adverse environmental effects. Alternatives are available to satisfy the area needs which would result in less environmental damage. Finally, the economic calculations for the project as presented in this study, particularly those related to recreation and power generation, cause us to doubt that the project will indeed result in a benefit-cost ratio greater than one.

EPA recognizes that the residents of the Delaware River Basin and surrounding areas have needs which can be served by the prudent utilization of the water resource of the area. It is our view, however, in light of the environmental and economic problems surrounding the proposed Tocks Island Lake Project, that these needs should be satisfied by less environmentally disruptive alternatives. I hope that these comments will be useful to you in deciding the future of the Tocks Island Lake Project.

Sincerely yours,

Russell E. Train,
Administrator.

SEPTEMBER 24, 1975.

Hon. JOE L. EVINS,
Chairman, Subcommittee on Public Works, Committee on Appropriations, House of Representatives, Washington, D.C.

DEAR MR. EVINS: I submit for your consideration my recommendations together with the attached reports of the Division Engineer and the consultants on a comprehensive restudy of the *Tocks Island Lake Project* and alternatives as required by the House Committee Report on the fiscal year 1975 Public Works Appropriations Act. That act provided $1,500,000 for the restudy.

The Tocks Island Lake project was authorized by Public Law 87–874, approved October 23, 1962, as part of the project for the comprehensive development of the Delaware River Basin. Preconstruction planning and design work was initially funded in fiscal year 1964 and has continued since. Funds for land acquisition were first appropriated in fiscal year 1968 and appropriations for this purpose continued through fiscal year 1974. Funds appropriated in fiscal year 1975 were earmarked by Congress for an impartial comprehensive analysis, including alternatives, and review of the project under the direction of the Corps of Engineers in cooperation with the Delaware River Basin Commission. Congress directed that the restudy be completed and a final and definitive recommendation be submitted to the Appropriations Committee within 12 months. This report is in response to that directive of Congress.

The report of the Division Engineer presents the results of an exhaustive, coordinated restudy of the Tocks Island Lake project, the water related needs of the region and the alternative plans to meet the needs. The restudy addresses in detail the significant environmental, social and institutional concerns expressed over the years since project authorization in 1962. In summary, the Division Engineer finds that there are pressing water-related needs to be met for flood control, water supply, water-land recreation and power. Because these needs are serious and are increasing with the passage of time, he further finds that the decision on means to meet these requirements should not be delayed. He finds that the Tocks Island Lake Project or alternative plans can meet a substantial part of the needs. Because of the efficiency of a multiple-purpose project, he finds that the Tocks Island Lake Project is the most economic solution and that it is engineeringly sound. He concluded that the project should be constructed provided this action was supported by the Governors of the affected States.

The Delaware River Basin Commission, composed of the Governors of New York, New Jersey, Pennsylvania, and Delaware, and a Federal member, met on July 31, 1975 to consider the Tocks Island Lake project. Members of the Commission voted to reject a motion recommending that the Congress appropriate funds to commence construction of the project, but voted to approve a motion recommending that the Congress appropriate funds to complete land acquisition in the project area. The question of whether to recommend continuing authorization or deauthorization of the Tocks Island dam and reservoir was discussed but no vote was taken.

In view of the lack of State support for construction, the Division Engineer concludes that the Tocks Island Lake project should be deauthorized so that alternative plans to meet the needs of the region will be developed. He recommends that construction of the project not proceed and that the project be deauthorized.

Subsequent to action by the Commission, the Governor of Pennsylvania expressed his views on the Tocks Island Lake project in a letter to me dated August 20, 1975. A copy of that letter is enclosed. The Governor reaffirmed the Commonwealth of Pennsylvania's longstanding position favoring immediate construction of the Tocks Island Lake project, and urged that I recommend such action to the appropriate congressional committees.

I concur in the views and recommendations of the Division Engineer. With regard to a recommendation for deauthorization of the Tocks Island Lake project, however, I foresee certain problems relating to disposal and management of lands already acquired by the Corps of Engineers for the project. In keeping with the desires of the States, certain of the acquired tracts could be logically incorporated as part of the Delaware Water Gap National Recreation Area, subject to such modification of the authority establishing the Park as is appropriate concurrent with deauthorization of the Tocks Island Lake project and Delaware River Basin Commission's modification to its comprehensive plan for the Delaware Basin.

This, of course, would require review of the overall Park requirement in the absence of the Tocks Island Lake. In acquiring land for the Tocks Island Lake project, we have incurred, over the years, continuing custodial and care obligations, and condemnation, resettlement, relocation assistance and other commitments that must be met in a timely manner. We estimate that, if the project were deauthorized, an orderly phase-out of Corps of Engineers activities, with no new commitments, would require about $7 million and could extend over a 3-year period. These matters have already been discussed with the Department of the Interior and I propose to review these in greater detail with the Department prior to reporting thereon and on deauthorization of the Tocks Island Lake project to the legislative committees of Congress.

By letter dated August 21, 1975, the Department of the Interior indicated that it would have no objection to the Corps recommending deauthorization of the Tocks Island Lake project. The letter also states that the National Park Service can provide a viable Delaware Water Gap National Recreation Area whether the Tocks Island Lake is constructed or not. A copy of the Assistant Secretary's letter is attached.

Accordingly, I propose to submit legislation through appropriate channels to deauthorize the Tocks Island Lake Project. and to provide for orderly phase-out, including disposition of lands already acquired by the Corps of Engineers. Once these requirements are more fully defined, we will recommend a funding program for the necessary phase-out activities. In view of the unresolved water resources problems in the basin, it would be appropriate for the Water Resources Council to reexamine the Delaware River Basin Comprehensive Plan.

An identical letter is being furnished the Honorable John C. Stennis, Chairman, Subcommittee on Public Works, Committee on Appropriations, United States Senate.

Sincerely,

(Signed) W. C. GRIBBLE, JR.,
Lieutenant General, USA, Chief of Engineers.

Congress of the United States

House of Representatives

Washington, D.C. 20515

May 29, 1974

Attention: Pennsylvania and New York Members

Dear Friend:

I need your support for a brief bill that may help the Congress avoid a potential $1 billion disaster in my back yard.

Appeal language aside, I would appreciate your cosponsoring with me a bill authorizing a study of the alternatives to the construction of the Tocks Island Dam across the Delaware River, and to delay any appropriation of construction funds for one year until the study is completed.

This is necessary now because all involved in the project, including the Corps of Engineers, the Council on Environmental Quality, the Environmental Protection Agency, the Office of Management and Budget, and the Governors of New York, New Jersey, Delaware, and Pennsylvania, all recognize the water pollution problem (through eutrophication) the dam will cause, as well as the almost $400 million cost for sewage treatment. Governor Malcolm Wilson of New York has withheld his approval of the project, as has Governor Brendan Byrne of New Jersey, until cost effectiveness and environmental considerations are thoroughly reviewed.

Despite the caution of these officials, the House Appropriations Committee is preparing to add funds to the Administration's budget request, so that construction can begin immediately. This action will directly affect our states. Before such a construction appropriation, we should have this essential study in the face of almost $1 billion in land acquisition, dam construction and water treatment costs.

The approach in my bill is consistent with the stance the Appropriations Committee has taken for the past two years.

I would be grateful for your support of this legislation. Please contact Chip Seeger (53731).

Joe McDade



STATE OF NEW JERSEY
OFFICE OF THE GOVERNOR
TRENTON

BRENDAN T. BYRNE
GOVERNOR

August 4, 1975

Mr. Harold A. Lockwood, Jr.
Chairman
Save the Delaware Coalition
2015 Land Title Building
Philadelphia, Pennsylvania 19110

Dear Mr. Lockwood:

Thank you for sending me the Coalition's report on the Tocks Island Dam project.

As you know, the Delaware River Basin Commission voted against the construction of the dam yesterday, and I cast one of the deciding votes against the dam. The final decision is now up to the Congress.

I appreciate your views and support on this important issue.

Sincerely,

GOVERNOR

STATE OF NEW YORK
EXECUTIVE CHAMBER
ALBANY 12224

HUGH L. CAREY
GOVERNOR

August 29, 1975

Dear Mr. Jones:

Thank you for your letter concerning the Tocks Island Lake Project.

As you may know, on July 31st a majority of the members of the Delaware River Basin Commission voted to request the Congress not to proceed with construction of the Tocks Island Dam.

New York State voted against the project because:

-- the benefits derived from the project by New Yorkers were questionable compared to its costs;

-- the proposed lake would not be desirable for recreational use;

-- the proposed lake would support heavy algae growth which could jeopardize existing oxygen supplies for the fish in the lake; and

-- the free-flowing Delaware River and its unique fishery resource, the American shad, would be lost.

Thank you again for writing and for your support of our position on this controversial project.

Sincerely,

Hugh L. Carey

Mr. George A. Jones
20 Sullivan Avenue
Port Jervis, New York 12771

SAVE THE DELAWARE COALITION

Member Organizations

1. Adirondack Mountain Club - New York Chapter
2. Adirondack Mountain Club - North Jersey Chapter
3. American Canoe Association
4. American Rivers Conservation Council
5. Appalachian Mountain Club - Delaware Valley Chapter
6. Appalachian Mountain Club - New York Chapter
7. Appalachian Trail Conference
8. Bucks County Audubon Society
9. Chester County Environment Committee
10. Delaware River Shad Fishermens' Association
11. Delaware Valley Conservation Association
12. Environment: Pittsburgh
13. Environmental Policy Center
14. Environmental Political Action
15. Essex County Young Republicans
16. Federation of Conservationists - United Societies, Inc.
17. Federation of Fly Fishermen
18. Federation of Sportsmen of New York - Sullivan County
19. Fontinalis Fly Fishermen
20. Free Flowing River Committee
21. Friends of the Earth
22. Humane Society of the United States
23. Kayak and Canoe Club of New York
24. Keystone Trails Association
25. League for Conservation Legislation - New Jersey
26. Lenni Lenape League
27. Luzerne-Lackawanna Environmental Council
28. National Committee to Stop Environmental Pollution
29. National Wildlife Federation
30. New Jersey Federation of Sportsmen Clubs
31. New Jersey Public Interest Research Group
32. New York-New Jersey River Conference
33. Phillipsburg Jay Cees
34. Raritan Valley Environmental Council
35. Rutgers University Law School - Environmental Law Group
36. Sierra Club - National
37. Sierra Club - Atlantic Chapter
38. Sierra Club - New Jersey Chapter
39. Sierra Club - Pennsylvania Chapter
40. Sierra Club - Allegheny Group
41. Sierra Club - Central Pennsylvania Group
42. Sierra Club - Delaware Group

43. Sierra Club - Eastern Pennsylvania Group
44. Sierra Club - Finger Lakes Group
45. Sierra Club - Governor Pinchot Group
46. Sierra Club - Mid Hudson Group
47. Sierra Club - New York Group
48. Sierra Club - North Jersey Group
49. Sierra Club - South Jersey Group
50. Student Coalition for Environmental Action
51. Theodore Gordon Flyfishers
52. Tri State Rod and Gun Club
53. Trout Unlimited, National
54. Trout Unlimited, Croton Watershed Chapter
55. Trout Unlimited, East Jersey Chapter
56. Trout Unlimited, North Jersey Chapter
57. Trout Unlimited, Eastern Pennsylvania Chapter
58. Trout Unlimited, Pennsylvania Council
59. United Automobile Workers - New Jersey Council - Region 9
60. Warren County Anti Pollution League, Inc. - New Jersey
61. Wilderness Society

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800 NORTH THIRD STREET
HARRISBURG, PA. 17102
(717) 233-7947

ROBERT J. SUGARMAN
DIRECT DIAL: (215) 972-3662

July 23, 1976

Save the Delaware Coalition
Harold A. Lockwood, Jr., Esquire
2126 Land Title Building
Philadelphia, PA 19110

Re: State of New Jersey: Delaware River Water Diversion

Dear Mr. Lockwood:

You have requested my opinion as to whether the position taken by Honorable Brendan Byrne, Governor of New Jersey, in voting in the Delaware River Basin Commission, and in announcing his opposition to present construction of the Tocks Island dam in the Delaware River, works a forfeiture of New Jersey's right to 100 mgd average daily diversion from the Delaware River as provided in the amended decree of the United States Supreme Court dated June 7, 1954 in New Jersey v. New York, 347 U.S. 995, at 1001-1002.

New Jersey's obligation, as a condition of its diversion, was expressly stated as follows:

> ". . .the State shall not, prior to July 1, 1955, repeal Chapter 443 of the New Jersey Laws of 1953, and. . .when the Commonwealth of Pennsylvania accepts the conditions as specified in Section 19 of that Chapter, the State of New Jersey shall join with the Commonwealth of Pennsylvania in requesting the consent of Congress to the agreement embodied in Chapter 443 of the New Jersey Laws of 1953 and an Act of the Commonwealth of Pennsylvania accepting the conditions of such New Jersey Act." (347 U.S., at 1001-1002)

I have studied the Decree, the Briefs filed by Pennsylvania and New Jersey, the Report of the Master, Chapter 443, P.L. 1953, of New Jersey Act of June 30, 1955, P.L. 216, of Pennsylvania, such cases and materials as I have deemed necessary and a Memorandum issued by the Delaware River Council dated January, 1976.

Based on these materials it is my opinion that the action of Governor Byrne does not work a forfeiture of New Jersey's rights for the following reasons:

1. New Jersey's obligation was specifically limited to cooperation with a dam at Wallpack Bend, but above the confluence with Flatbrook," and Pennsylvania agreed to this language (See N.J.S. Chapter 443, P.L. 1953, Pa. Act of June 30, 1955, 32 P.S. §815.49.1). The proposed Tocks Island dam is located several miles from Wallpack Bend, and is below the confluence with Flatbrook. In short, the Tocks Island dam is not the dam with which New Jersey agreed to cooperate, but rather a substantially different dam. As far as I am advised, New Jersey has not repealed Chapter 443 or taken any other action to prevent or discourage Pennsylvania from building the Wallpack Bend dam, and thus has not violated the above quoted condition.

2. The Delaware Valley Council claims that New Jersey agreed to substitute Tocks Island for Wallpack. However, I can find no reference to any action taken officially by the State of New Jersey to agree to the Tocks Island dam as a substitute. Statements of its Senators, Congressmen, Cabinet officials, leading citizens, are not binding on a state, which can contract only by legislative action or authority such as that contained in Chapter 443, supra.

3. By its terms, the 1955 Supreme Court decree approves diversions subject to the further jurisdiction of that Court to make any "order, diversion or modification of this decree, or a supplemental decree that it may deem at any time to be proper. . . ." This reservation of jurisdiction was obviously intended to provide for such changes in circumstances as might warrant a change in allocations or other aspects of the decree,

and thus renders it not necessary to apply any legal doctrine to substitute "Tocks Island" for "Wallpack" in New Jersey, Chapter 443.

Please do not hesitate to advise me if I can be of further assistance in this matter.

Sincerely,

Robert J. Sugarman

RJS:SD

FROM REPORT: NEW JERSEY DEPARTMENT OF ENVIRONMENTAL PROTECTION
TO GOVERNOR BRENDAN BYRNE

Summer 1975

ALTERNATIVE WAYS OF MEETING MOST PROBABLE
LEVELS OF FUTURE DEMAND (URS - MEDIUM GROWTH)

ALTERNATE I: DEVELOP TOCKS PROJECT FIRST

PIPELINES NEEDED TO BRING TOCKS WATER TO N.E. N.J.

Date	Project	Cost	Yield MGD
1976	Ramapo River Pumping	Neg.	18
1977	RV Outlet P.L	$ 15M	80
1979	Two Bridges Skimm.	60	62
1990	Raritan-Passaic P.L	76	--
1993	Delaware-Raritan P.L.	60	150
1995	N.J. Share Tocks Is.*	44	--
		$255	310
2022	Raritan-Raritan P.L (to meet deficiencies beyond 2022)	60	150
			25
		$315	485
Gradually	Ground water & reuse	6.5	129
		$321	614

(Unit Cost: $523,000 per million gallons)

ALTERNATE II: DEVELOP INTRASTATE PROJECTS FIRST

Date		Without Tocks Island Cost	Yield-MGD
1976	Ramapo Riv. Pumping	Neg.	18
1977	RV Outlet P.L	$15M	80
1979	Two Bridges Skimm.	60	62
1990	Raritan-Passaic P.L.	40	--
1993	Confluence Res.	40	50
1995	N.J. Share Tocks Is.*		
2006	Six Mile Run Res.	30	30
2015	D & R Canal	10	25
2018	Raise Round Valley	5	27
		$200	300
Gradually	Ground Water & reuse	6.5	129
		$206.5	429

(Unit Cost: $481,000 per million gallons)

* 36.4% of nonfederal water supply cost of $120 million equal to annual cost of $1.7 million

Senator RANDOLPH [presiding]. Frances Beinecke?

STATEMENT OF FRANCES BEINECKE, NATURAL RESOURCES DEFENSE COUNCIL, NEW YORK, N.Y.

Ms. BEINECKE. Senator Randolph, my name is Frances Beinecke. I represent the Natural Resources Defense Council and also the New York State Citizens Advisory Committee, which was appointed in 1924 by the Commissioner of the Department of Environmental Conservation, to evaluate the consultants' study and recommend to the State of New York what its position should be on the Tocks Island project.

The Natural Resources Defense Council, a national nonprofit organization concerned with the environment, wishes to register its support for Senate bill 3106, the deauthorization bill for the Tocks Island Lake project. This position is based on close monitoring of and evaluation of the congressionally authorized independent study of the project.

Throughout 1974 and 1975 NRDC, along with a myriad of environmental groups and citizen organizations, actively participated in the Tocks Island study ordered by Congress, administered by the U.S. Army Corps of Engineers, and contracted to consultants URS/ Madigan-Praeger and Conklin and Rossant.

NRDC reviewed all the drafts and final versions of the study, attended all the public information meetings, attended informal meetings with State representatives, attended the bimonthly meetings of the study management team, and participated in the New York State Citizens Advisory Committee on Tocks Island, which was appointed by Ogden Reid, then Commissioner of the New York State Department of Environmental Conservation.

After participating in the above process, and careful evaluation of the study itself NRDC urged the Delaware River Basin Commissioners to support deauthorization of the project for the following reasons:

The study determined that the reservoir would be seriously eutrophic, thereby decreasing the recreation potential of the project.

That salinity at the Philadelphia and Camden water supplies was not a frequent enough concern to merit construction of the Tocks project.

The study determined that the anadromous fish population of the Delaware River, particularly the shad fishery, would be extensively modified, if not destroyed, by the proposed reservoir, its impaired water quality, and the intakes of the pumped storage plants.

The study established that the project would have a negative impact on the region in which the project was to be located, as it would experience substantial socioeconomic and environmental costs, and few benefits as the major benefits accrue to downstream and out-of-basin residents.

The traditional cost-benefit analysis used to review water resource projects was not adequate to study the secondary impact of projects such as this in the areas of land use, socioeconomic, esthetic and environmental impacts, and so forth.

Finally, the study clearly demonstrated that viable alternatives exist in each of the four project areas—flood control, water supply, recreation, and energy—which will satisfy the demands of the region into the next century.

The New York Citizens Committee on the Tocks project, of which NRDC was a member, and for which I am speaking today, recommended to Governor Carey that he support deauthorization of the project, as New York State would receive no significant benefits from the project and would experience substantial costs, both from the lost fishery of the Upper Delaware River and from costs incurred to treat nonpoint and point source agricultural and municipal wastes to reduce the euthropication potential of the proposed reservoir. These costs could be as much as $40 million for the State of New York and are not covered by Federal funding.

Since last summer, public interest organizations, including NRDC, have maintained their strong support for project deauthorization. The Council of Environmental Quality and the U.S. Army Corps of Engineers have supported project deauthorization, and the Delaware River Basin Commission vote remains the same—3-to-1 for no project funding and support for the natural recreation area without the dam.

Although a year has passed since the completion of the study, the public hearings and the DRBC's meeting, the facts remain the same. The Tocks Island Lake project is not required to meet water supply, recreation, flood control and energy needs in the service area. Alternatives do exist, and environmentalists support these alternatives.

The project has little support and substantial opposition. It is the obligation of this committee to recognize the interests of the participants in this project over the last 14 years, and finally support its deauthorization.

I have appended the positions of NRDC and the New York State Citizens Advisory Committee, the CEQ's position and Governor Carey's letter to the New York congressional delegation in support of deauthorization. I urge you to examine these and also to read parts of the Madigan-Praeger study, as the body of information is really contained there.

The position of the environmentalists is not one that has been conceived from thin air. It is based on careful and very thorough studies.

Finally, NRDC wishes to thank this committee for the invitation to testify at this hearing, and again we urge you to support Senate bill 3106, supporting deauthorization of the Tocks Island Lake project.

Senator GRAVEL. Thank you very much.

[Material appended to Ms. Beinecke's statement follows:]

76-797 O - 76 - 15

July 23, 1975

Governor Hugh Carey
State Capitol
Albany, New York

Dear Governor Carey:

The New York Citizens Advisory Committee on Tocks Island has reviewed the consultant study on the Tocks Island Lake Project and its Alternatives.

The Committee unanimously recommends that the Tocks Island Project be deauthorized.

Our reasons for this recommendation are:

(1) New York State reaps no benefits from the project.

(2) New York State will incur substantial unrecovered costs and negative impacts - by treatment of point and non-point source agricultural and municipal wastes to reduce eutrophication of the impoundment, by the elimination of the shad fishery in the Upper Delaware River, and by impairment of the region, as by the required dikes around the City of Port Jervis.

(3) There are viable alternatives to the Tocks Project - identified by the study - competent to satisfy the flood control, water supply, electric power and recreation needs of the service areas.

(4) The study determined that the benefit-cost ratio is only useful in evaluating a portion of the total impacts of a water resources project. Many impacts, particularly the environmental and socio-economic impacts, are unquantifiable. Because many of the impacts on New York State are in the unquantifiable realm, the Committee rejects a positive benefit-cost ratio of the Tocks Project as a factor in determining New York's position on the project.

(5) The Committee has determined that neither the study nor the DRBC has ever suggested how the Tocks Island Lake and its associated facilities and land use programs would be managed. We believe that no structure exists, or could become operative, which would manage such a project equitably and efficiently. The negative impacts of an inefficient system on the region would be monumental.

(6) The Committee feels that the interests of the Upper Basin of the Delaware River were not fully considered in the consultant study. The objective of managing the Delaware River beginning at Port Jervis, rather than at its headwaters is inexcusable. The Committee recommends that New York State urge the DRBC to undertake comprehensive management of the Delaware River Basin.

(7) Finally, the Committee has concluded that the Tocks Island Lake Project and economic growth are not inseparable. Economic growth is not a viable rationale for building the Tocks Project. The region has grown and will continue to grow at a healthy economic rate without the Project.

We sincerely hope that you will accept our recommendations to deauthorize the Tocks Island Lake Project.

NEW YORK CITIZENS ADVISORY
COMMITTEE

Copies to:

Governor Brendan T. Byrne
Governor Milton Shapp
Governor Sherman Tribbitt
Secretary Stanley K. Hathaway
Commissioner Thomas F. Schweigert
Commissioner Ogden Reid
Commissioner David J. Bardin
Dr. Maurice K. Goddard
Commissioner John Bryson

November 19, 1975

Dear (see attached list): NY Congressional Delegation

On July 31, 1975, a majority of the members of the Delaware River Basin Commission, including New York, recommended the Tocks Island Lake Project not proceed to construction. They did, however, vote land acquisition for the area of the Project be completed.

The decision of the Commission has been forwarded to the North Atlantic Division, United States Army Corps of Engineers (attached letter) for transmission to the Congress. Congress, however, must now resolve certain issues regarding the Tocks Island Lake Project which were not explicitly addressed by the Commission.

The New York position on these issues is as follows:

1. Deauthorize the Tocks Island Lake Project.

The majority vote of the Commission that Congress not appropriate construction funds for the dam and reservoir is a clear indication the Project is not necessary to meet projected water resource needs. It has significant adverse environmental effects, and the benefits are questionable compared to its costs. Northern New Jersey, a major beneficiary of the Project, can meet its water supply needs to at least the year 2000 by developing intrastate sources. Interbasin diversion of Hudson River water is being considered to supply post-2000 water needs. The Project was originally authorized in 1962.

2. Deauthorize the electric power aspects of the Tocks Island Project.

The pumped storage hydroelectric proposal was authorized in 1970 as part of the Tocks Island Lake Project. Electric power generated from pumped storage would supply only a small portion of the regional peak demand needs; alternative peak demand generating schemes are available. In any case, if future demands dictate, pumped storage can be implemented within the framework of a free-flowing river.

3. Amend the 1965 authorization establishing a Delaware Water Gap National Recreation Area.

The Commission clearly expressed its wishes appropriations be continued to complete the purchase of lands for the Project. Such action would allow for the creation of a recreation area with a free-flowing Delaware River as its focus and would hold the lands in trust for the future needs of the Delaware Basin. Approximately seventy per cent of the 70,000 acres required for both the Tocks Island Project and the National Recreation Area have been purchased at a cost of $97 million. Land acquisition has already had a significant economic impact on the local area and its disposition now would create numerous serious social and environmental problems. Alternative plans have been developed by the Department of the Interior for a recreation area based on a free-flowing Delaware River.

We request your assistance.

Sincerely,

/s/ Hugh L. Carey

Name
Address
City, State

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U.N. Representative
John H. Adams
Executive Director

COMMENTS

to the

DELAWARE RIVER BASIN COMMISSIONERS

on the

TOCKS ISLAND LAKE PROJECT

AND

ALTERNATIVES STUDY

Frances Beinecke
Natural Resources Defense Council
15 West 44 Street
New York, New York 10036
(212) 869-0150

DATED: New York, NY
July 24, 1975

The following comments on the Tocks Island Lake Project and Alternatives Study were prepared by the Natural Resources Defense Council, a national, public interest, environmental law firm. NRDC was requested by the New York State Commissioner of Environmental Protection to serve on the New York State Citizens Advisory Committee and, in that capacity, to evaluate and comment on the consultants study. After thorough evaluation of the Draft and Final Studies, we have made the following observations and conclusions.

After review of the study and of the criticisms brought out in the four public meetings on the study, NRDC has determined that the environmental and socio-economic impacts of the Tocks Project would outweigh its alleged benefits. We recognize that definite needs exist in the four project areas of water supply, flood control, electric power and recreation, and are satisfied, after studying Section C on Alternatives, that feasible alternatives to the Tocks Project do exist.

The Tocks Island Lake Project has never been an environmentally sound project to NRDC. The reasons behind this are:

(1) an anticipated negative impact on the character of the seven county region because of concentrated rapid development rather than steady growth resulting from a regional plan.

(2) an environmental impact which would make the reservoir unattractive for water based recreation.

(3) an environmental impact from the pumped storage facility which would seriously degrade, if not destroy, the reservoir fishery, and the impact of the operation of the reservoir on destroying the shad populations of the River.

(4) a false economic stimulus from the project which would result in induced growth rather than providing supply for steady growth needs and services.

(5) an outdated approach to water resource management which would not consider recent federal policy in the area of flood plain management resulting from the Federal Flood Disaster Protection Act of 1973, and of comprehensive river basin management.

Section A of the study did an extensive job of examining the past, possible, and probable growth trends and accompanying demands for flood control, recreation, water supply and electric power. As other organizations, particularly the Environmental Defense Fund and the Sierra Club, have examined flood control and recreation in detail, this memorandum will concentrate on demands and alternative supply of water and electric power.

WATER SUPPLY

Chapter III on Water Supply discusses in and out of basin demand, figuring all out of basin diversions to be consumptive use, and then determining the in basin consumptive

use which would affect base flow in the Delaware River.

The study determined that industrial need is greater than domestic. Future demand for water will depend on whether or not industry will become self-supplied. The assumption is that it would as publically supplied water is too expensive. To do this, the study assumes that industry would have to locate on estuaries, or other salt water bodies, where water supply would be plentiful and inexpensive. Furthermore, the study determined that industrial recirculation, if developed further than at present, could significantly reduce industrial needs. Based on present assumptions, industrial need would not be a large component of the Tocks Project diversions.

The study assessed total demand under three scenarios. The third, which is "the most reasonable scenario that can be made with presently available data," (III-95) determines that Northern New Jersey would required 810, 457, 282 MGD in high, medium, and low growth projections for the year 2025. The study then concludes:

> "It is significant, again, that under the assumptions of Scenario 3, the proposed 300 MGD diversion from the Delaware River Basin would not necessarily be required under the medium and low growth alternatives, and only partially required under the high growth alternative." (III-95)

The study proceeds to say that this projection depends largely

on industrial siting. Industrial requirements which would be self-supplied are estimated to be 3100, 2700, 1900 MGD by 2025. Clearly, none of the proposed alternatives could satisfy this degree of demand. Industries will have to become self-supplied. The issue is really - to what degree? If industrial siting were altered from the study's projection, Tocks might be required. However, the probability of that, in light of the cost of the water, does not exist at this time.

The second major water supply consideration is the base flow requirement to ward off salinity intrusion at the Philadelphia and Camden intakes. One of the new findings of the study, after detailed analysis, was that the probability of salinity intrusion into the intakes is an unlikely occurrence. In their words:

> "From the foregoing analysis, it is apparent that the DRBC minimum required flow at Trenton of 3000 cfs is not likely to be needed to prevent salinity from exceeding 50 mg/l at Tornesdale during a typical 500 year period." (III-166)

> ". . . it is important to question whether any minimum flow, 2300 or 3000 cfs, is required given that there are so few exceedences of the threshold when no minimum flow is maintained." (III-166)

The findings of the infrequency of salinity intrusion in a 500 year period require an examination into drought protection. Droughts, like floods, occur at undetermined intervals.

Flood recurrence has received extensive study, and a methodology of synthetic hydrographs and regression models has been developed to predict frequency and size of floods. This is used in determining the degree of protection necessary. Flood control projects are usually planned to protect from the 100 year flood. Greater floods are recognized as possibilities, but are not economical to use as a basis for dam size.

Droughts, on the other hand, have little predictive methodology, and are characteristically different as they gradually increase over a period of time, rather than the short term level of a flood. However, in developing drought protection measures, the same rationale exists as for flood protection. A certain degree of protection is beneficial, anything greater than that becomes unrealistic. Basing a low flow augmentation program on a 500 year drought is not a realistic plan.

In conclusion, NRDC is satisfied that out of basin needs do exist, but can be met without Tocks, and that the largest need within the basin, that of blocking salinity intrusion, is less than supposed for a realistic plan of protecting against 100 year events.

WATER SUPPLY ALTERNATIVES

The study, in Chapter XII, evaluates all the known

alternatives which could provide additional water to Northern New Jersey. Chapter XVI then determines which alternatives could be used in a comprehensive program.

NRDC disagrees with the water supply alternatives in Programs A and B, that of alternative reservoirs on the Delaware River tributaries. These reservoirs will produce the same type of controversy as the Tocks Reservoir, and, for the most part, are located even further from the service area. The major locations suggested are those in Pennsylvania. The consultants' reasoning for choosing reservoirs is based on existing knowledge and technology for water supply projects. This determination is shortsighted when other viable alternatives are known to exist.

NRDC wishes to point out that an additional number of reasonable alternatives were presented in Chapter XII of the study. These alternatives have significantly less environmental impact than have the reservoirs and are located much closer to Northern New Jersey. Impacts which may result will be on the beneficiaries of the project. These alternatives and the amount of water supplied are:

- Groundwater from Northern & Southern New Jersey	334 MGD
- High flow skimming on the Delaware	556 MGD
- Water reuse by industries	180 MGD
- Conservation devices	14 MGD
(TABLE 12-4)	1084 MGD

We recommend that New Jersey immediately develop a Water Supply Program aimed at providing for future needs. We recommend that the plan be imaginative and not be confined to traditional water supply reservoirs. Increased demand of water supply, like energy, will require new as yet untested programs if future needs are to be met.

The recommended alternative to ward off salinity intrusion is protection of the Philadelphia Intake by moving it permanently upstream, or by providing an emergency intake system upstream. Camden could be supplied by emergency wells from the Wharton Tract in Southern New Jersey.

In suggesting alternatives, NRDC reiterates the consultants warning - that these appear to be viable alternatives but have not been part of an in-depth planning program. NRDC, therefore, recommends that the above alternatives be fully examined before specific choices as to their implementation are made.

ELECTRIC POWER

The consultant, in Chapter V, concluded that power supply is not limited strictly by technological constraints, but rather by political decisions by federal and state legislators and regulators. Upon reading the chapter, especially the nine scenarios, the impression left is that any amount of

electric power, from high to low, can be provided to the service area, using a large variety of options. This image weakens the argument that the Kittatinny Mountain Pumped Storage Project is the best option available to satisfy peak power demand.

Rather than discuss specific demand levels, (peak low and high demand projections range from 65,600 to 138,500 MWe, while total demand ranges from 75,400 to 159,400 MWe) the study's conclusions in some areas are more germane.

The most significant information provided is that relating to the electric power growth rates. Recent growth rates (1974) have decreased. This cannot be argued as a trend, necessarily, because of severe oil restrictions and voluntary and imposed restricted uses of oil and gas. However, it does suggest that decreased percentage growth is feasible. The conclusion is that the annual growth rate will decrease from 7.0% to 6.5% (V-25).

In addition, the study finds that it is unrealistic to provide energy which would increase at the same rate as the past. "These uncertainties (whether it is possible to keep future supply even with demand) are expected to have an important effect on reducing previous demand growth, particularly in the next 10-15 years." (V-29) The study continues by saying that electric power demand will not be parallel to economic and population growth rates. This finding disproves

this argument that the benefits provided by Tocks are required to maintain a high level of economic growth. Both the Energy Policy Project of 1974 and the Rand Corporation Study of 1972 de-couple economic prosperity and energy growth (V-30).

One of the most significant factors relating to electric power is the total consumptive water requirements of the various scenarios. Cooling water is one of the most limiting factors in siting the facilities. The requirements of the Environmental Protection Agency for closed-cycle cooling will force increasing numbers of plants to locate where large supplies of cooling water are available at low costs. The trend seems to be to locate on salt water.

In conclusion, we realize that a wide range of demand, type of cooling required, and available fuel source all affect future electric power supply. The major conclusion to be drawn from the chapter is that electric power demand is now in a fluctuating period. It is impossible to determine what future trends will be. If this is true, the future energy program should be planned in advance.

Chapter V discusses the present and future peak power demand in the region. Because of the serious environmental impacts of a pumped storage project, NRDC is in favor of the combined cycle alternatives proposed in Chapter XIV.

This alternative can be ready in three years, can be sited much closer to the use region, and has many fewer impacts on the air, land, and water than the pumped storage project. NRDC has represented the Hudson River Fishermen for 3-1/2 years in the litigation over the pumped storage plant at Storm King Mountain. From our study of the effects of this plant, we cannot support the concept of pumped storage on any productive aquatic ecosystem.

ENVIRONMENTAL AND SOCIO-ECONOMIC IMPACTS FROM THE PROPOSED PROJECT

The study determined that the reservoir would be eutrophic - a final resolution to a long controversy. The further conclusion is, however, that eutrophication will not seriously limit use as people are accustomed to eutrophic reservoirs, and that demand for swimming is so great that the reservoir will be used to capacity.

NRDC assessed the consequences of a eutrophic lake from other perspectives. The first is the impact on the Delaware River shad fishery. The loss of the shad fishery to the Upper Delaware River significantly cuts into the economic base of the region. Shad on the Delaware provide an estimated 125,000 man-days of fishing, both commercial and sport. Although the report suggests a decrease of 35,000 man-days because of the loss of the 37-mile stretch, some people in the Upper Basin anticipate that the loss will be total. The

effects of negotiating the fish ladder, the pumped storage intake, and the still, rather than flowing, water could result in the total destruction of the fishery as spawning would become impossible. It is unlikely that available habitat exists downstream, unless that part of the fishery was also displaced.

It is worth mentioning that the Storm King Mountain Pumped Storage Project has been delayed for many years because of the harmful effects of the intakes on the striped bass population of the Hudson River. Litigation holding up the Kittatinny Mountain Pumped Storage Project might also occur. The peaking power that was supposed to be delivered in five years could be delayed indefinitely.

A eutrophic reservoir will adversely affect New York State. New York State, receiving no flood protection, water supply or electric power benefits from the project, would be compelled to pay millions of dollars (perhaps $40 million) to treat non-point and point source agricultural and municipal wastes. As yet, no technology exists for non-point source treatment and federal funds are not available for implementation.

The effect of eutrophication on recreation use is secondary to the severe economic costs brought by an eliminated shad fishery and high waste treatment costs.

A second environmental hazard resulting from the Project

would be the development in the flood plain induced by a false sense of security. The flood protection from the Tocks Project is significantly less by 18% than that of the alternative, non-structural measures and promotes flood plain development. This runs contrary to the Flood Disaster Protection Act of 1973.

A third impact is the absolute destruction of the flooded terrestrial ecosystem and severe impact on the National Recreation Area from intensive use.

The environmental impacts of the Tocks Island Lake Project are severe. The impact and resulting cost is predominately on the seven county impact area and in New York State. None of the essential benefits of the project would go to these areas. NRDC recommends the alternatives discussed above, as their environmental impact is less, and affects the beneficiaries of the projects primarily.

The socio-economic impacts are also severe. The impact of 10,000,000 annual visitors to the National Recreation Area would change the economic base and accompanying land uses of the seven county region from a light industrial and agricultural community to a tourist and recreation area. As evidenced by the public meeting testimony, the Tocks Project is not desirable to many people in the region. The region already has a growing economic base and increasing population. Now it can accommodate the growth. The rapid enforced growth brought

by a water resources project would not be well accommodated.

None of the above environmental or socio-economic impacts are figured into the lengthy cost-benefit analysis discussed in Chapters VIII and XVI. The Cost-Benefit Analysis procedure the consultants determined to be limited in scope. The secondary costs, under which all the environmental impacts fall, are not quantified. The benefit cost ratio is, then, not at all representative of the full impacts of the project. The point cannot be stressed enough. Too many decision makers are accustomed to using the benefit-cost ratio as the deciding factor. It cannot be used in the Tocks Project so completely. The true impacts of the project on the environment and people of the region are not a component of this analysis.

CONCLUSION

In conclusion, NRDC has examined the Tocks Island Lake Project and Alternatives Study and concludes that the environmental and socio-economic impacts of the project are severe, that needs exist in the four project areas, but that they can be met by alternatives discussed in the study, and that the project should be deauthorized.

An argument for deauthorization necessarily raises the problem of how to deal with future unforeseen demands for water supply, electric power, recreation and flood control. We recognize that the mid nineteen seventies is a particularly

difficult time to evaluate future demands when every trend in population growth, energy demand, and economic vitality has been reversed in recent years. Recognizing this problem, a deferral argument may be appropriate. However, such a choice contains serious problems. If deferral is chosen, it should not be deferral of the dam until a specific date, but instead deferral on the decision on whether or not to build the dam at a specific date perhaps 30 years from now. This decision should then be based on existing demand and supply information.

The obvious problems with deferral are the false security based on the assumption that a dam will be built. This security would inhibit Congress or the National Park Service from developing a first rate National Recreation Area without the dam. It would also inhibit New Jersey from developing a comprehensive water supply plan. New Jersey would undoubtedly base its assumptions for water planning on the availability of water from Tocks. This position is absolutely unacceptable. The study has determined that alternatives to the Tocks Project, other than reservoirs, can be developed. The Delaware River Basin Commission and Northern New Jersey must plan, taking those alternatives into account.

Because a deferral decision is accompanied by a vast number of problems, NRDC recommends deauthorization of the Tocks Island Lake Project. If the time came when the Tocks

reservoir was an absolute necessity, which is not the case now according to the study, the site and all the Army Corps plans would still be available.

EXECUTIVE OFFICE OF THE PRESIDENT
COUNCIL ON ENVIRONMENTAL QUALITY
722 JACKSON PLACE, N. W.
WASHINGTON, D. C. 20006

July 29, 1975

Dear Governor Byrne:

As you know, the Council on Environmental Quality has had a continuing interest in the proposed Tocks Island Lake Project. We have been concerned in particular that water quality and land use aspects of the project be carefully evaluated, and that alternatives be adequately considered.

We have reviewed the Comprehensive Study of the Tocks Island Lake Project and Alternatives and find it to be, in general, an objective and useful analysis. The study reveals that adverse environmental impacts associated with the Tocks Island Project will be significant and persistent. These include:

-- Potentially severe effects on water quality and, consequently, on proposed recreational uses that would result from the impoundment.

-- Adverse effects on fish and wildlife habitat and other natural and cultural features.

-- Adverse secondary impacts induced by the project, including strip commercial development, loss of open space, increased demands on local communities for public services, and increased pressure for development of downstream flood plain lands.

The study also shows that a range of feasible alternatives exists which, if pursued in appropriate combinations, could meet some or all of the legitimate needs of the region for power production, flood control, water supply, and recreation.

The Council on Environmental Quality believes that the Tocks Island Lake Project should be deauthorized. In its place, we encourage the development of an appropriate combination

of alternative measures which would fulfill the needs of the citizens of the four Delaware River Basin states, while also maintaining and enhancing the existing amenities of the Delaware River Valley.

Sincerely,

Russ Peterson

Russell W. Peterson
Chairman

Honorable Brendan T. Byrne
Governor of the State of New Jersey
State House
Trenton, New Jersey 08625

[Identical letters were sent to:

Governor Hugh L. Carey, New York
Governor Milton J. Shapp, Pennsylvania
Governor Sherman W. Tribbitt, Delaware
Acting Secretary Kent Frizzell, Department of the Interior]

Senator GRAVEL. Curtin Winsor?

STATEMENT OF CURTIN WINSOR, DIRECTOR, AMERICAN LEAGUE OF ANGLERS ALSO REPRESENTING TROUT UNLIMITED, AND DELAWARE RIVER SHAD FISHERMEN, ACCOMPANIED BY THEODORE GORDON, FLY FISHERMEN, PHILADELPHIA, PA.

Mr. WINSOR. Chairman Gravel, my name is Curtin Winsor. I am a retired Philadelphia lawyer but still an active sport fisherman and writer. I represent here today the following sport fishing groups:

One. The American League of Anglers, with headquarters in Washington, a nonprofit, nonpartisan citizens action group organized to protect the interests of sports fishermen of both fresh and salt water varieties. I am one of the founding directors of this organization, whose board of directors includes such well-known names as sportscaster Curt Gowdy, the chairman of the board; and writers Lee Wulff, Ernest Schwiebert and Ed Zern; Michael O'Neill, publisher of Field and Stream Magazine; Lamar Underwood, publisher of Sports Afield; Donald Zahner, editor of Flyfisherman magazine; and Ray Scott, president of the Bass Angler's Sportsman's Society. Other directors who may be known by name to some of you include Bing Crosby and Bing McClellan, president of the American Fishing Tackle Manufacturers' Association.

Two. Trout Unlimited, a national organization with headquarters in Denver of some 22,000 anglers dedicated to the preservation of America's cold water fisheries, headed by William Luch. I am a former director and presently a member of the advisory board of this group. I also represent today Trout Unlimited's Pennsylvania State Council and its southeast Pennsylvania chapter, of which I am a director.

Three. The Theodore Gordon Fly Fishermen, another national angler's group with headquarters in New York City.

Four. The Delaware River Shad Fishermen's Association, with headquarters at Morristown, N.J., an organization of sportsmen one of whose officers, Mr. John Boniface, is here.

Gentlemen, the organized sportsfishermen of America want to see S. 3106 enacted and the Tocks Island Dam deauthorized. We thought the project was dead when the State members of the Delaware River Basin Commission voted against the appropriation for the dam's construction. Today we urge your subcommittee to help nail down the lid on the coffin.

We recognize that there are two sides to the question of whether the dam should survive. Doubtless, industry will need more water downstream from the proposed damsite. The root of the water shortage problem lies in the fact that the State of New York has not cleaned up its own Hudson River and relies heavily on the share of the Delaware's water awarded to it by the U.S. Supreme Court. The problem is aggravated by the fact that New York City doesn't even meter its drinking water, so there is no motive for its citizens to conserve water. Philadelphia and other major cities meter successfully.

So we face again the familiar battle for conservation of a vital public resource versus consumption of that resource for growth and development. I propose to lay out concisely the arguments for conservation just from the standpoint of fishermen.

SHAD FISHING

The Delaware is one of the last important rivers in the United States which flows free, unimpeded by dams, and so open to migration by anadromous fish such as shad and striped bass. In recent years the annual Delaware shad run has improved spectacularly and as pollution problems on the lower Delaware and its bay are further corrected, as they will be, the Delaware could become as it was in the 1890's, the best shad fishery in the country.

In the nineties, the Delaware's commercial shad catch averaged 10 to 20 million pounds per year, of which 500,000 pounds came from the freshwater section of the river above Trenton. Recent studies indicate that most of the spawning of the shad occurs above the site of the proposed dam. If the catches of the 1890's are restored, the annual retail value of the shad, both roe and buck, would run between $14 and $28 million, according to estimates by the shad fishermen.

In an era when much of our commercial saltwater fishing is being hampered by ruthless competition from Russian and Japanese trawlers, the commercial value of shad carries strategic implications, because these trawlers cannot intercept the shad in Delaware Bay nor readily catch them when they are scattered throughout the Atlantic during the 3 to 6 years they spend there feeding on plankton.

Sportsfishing for shad on the Delaware is now flourishing; commercial fishing will return if there is no dam. Construction of the dam would drastically impede, if not finish, this fishery because thousands of fish will be sucked into the pump storage intakes to the proposed reservoir accompanying the dam as they try to migrate downstream. Nor can anyone safely predict how many will get by the dam on their way upstream. The same problem exists with striped bass and eels which provide a substantial fishery above the dam.

LAKE V. RIVER FISHING

Construction of the dam will not create an attractive lake suitable for boating, fishing and other recreation. It will produce a hole with ugly mudbanks exposed to a level of up to 57 feet annually during periods of low water. Thirty-seven miles of scenic flowing river passing through the famed Delaware Water Gap would be lost and might be replaced by a eutrophied warm water lake likely to be covered in hot weather by algae and scum, and inhabited by trash fish like carp.

At one of the hearings which I attended before the Delaware River Basin Commission on the dam, a charming little whitehaired old lady in white sneakers beamed over her spectacles at the startled commissioners and characterized the dam as "Frankenstein's John." This may not be as extreme as it sounds, having regard to what goes into the upper Delaware from New York chicken farms.

According to the Pennsylvania Fish Commission, an aerial survey of the Delaware above the dam in 1974 spotted 4,000 canoes floating down the river on a typical summer Saturday. Will those canoeists want to paddle between the mudflats if the dam is built? The Commission has also publicized a survey showing that five out of seven Pennsylvania fishermen prefer to fish flowing water rather than dams. Lakes and dams abound in Northeast America; free-flowing rivers do not.

As it now flows, the Delaware provides a fine sports fishery for trout in its upper reaches and for small-mouth bass and walleyes both above and below the damsite. Tributaries to the river include 16 miles of prime trout water destined to be flooded out if the dam is built, including Flatbrook in New Jersey, the finest trout stream in that State and probably the only one with substantial natural reproduction.

With the dam built, sea run lampreys would probably become landlocked, and they would raise hell with all of the upper Delaware's trout stream tributaries, including Flatbrook, N.J., Pennsylvania's famous streams, the Brodhead, Paradise and Bushkill, and New York's Beaverkill and other great streams.

FLOODS

Construction of the dam will not stop floods. The floods in northeast Pennsylvania following Hurricanes Connie and Diane—not Hazel and Carol as were in my notes—some years ago caused much damage and loss of life in tributaries of the Delaware well above the dam. If the dam had been there, it would not have helped one bit with those tributaries.

I want to reaffirm again what Nancy Shukaitis said earlier to this hearing about the relevance of the recent Teton River dam disaster in Idaho to Tocks. If the breach of the earth-built Teton in a sparsely settled farm area in Idaho could cause $300 million in damages, what would happen if the proposed earth-built and much bigger Tocks Dam were to collapse to the much more heavily populated area below the dam along the lordly Delaware with three times the flow of the Teton?

Environmentalists, including Trout Unlimited, warned of the possible consequences of the Teton Dam construction and their warnings were not heeded. We hope Mrs. Shukaitis' message and warnings are heeded by your subcommittee.

In conclusion, sports fishermen welcome a national recreation area on the site of the proposed dam. This will produce real benefits at low cost. Thirty million persons live within a couple of hours of this area. But we fishermen say let's not convert the lovely lower Delaware into a river like Germany's Ruhr, a polluted drain for fast-developing industry. Build reservoirs if the water is needed, but let the Delaware flow through the Delaware Water Gap. Deauthorize this damned dam.

Thank you very much.

Senator GRAVEL. Our next witness is Mr. Charles Marciante.

It is a pleasure to see you. It has been some time.

STATEMENT OF CHARLES H. MARCIANTE, NEW JERSEY STATE AFL–CIO, TRENTON, N.J., ACCOMPANIED BY HOWARD McGUIGAN, LEGISLATIVE REPRESENTATIVE, AFL–CIO, WASHINGTON, D.C.; GEORGE TAYLOR, AFL–CIO RESEARCH DEPARTMENT

Mr. MARCIANTE. Senator, I have with me Howard McGuigan, who is with the legislative department of the AFL–CIO, and George Taylor, from the AFL–CIO research department.

In addition to that, I also have a statement from the president of the AFL–CIO in Pennsylvania, Harry Boyer, who is at a hearing in Harrisburg. He asked that I make this presentation which has been made available to the committee.

Senator GRAVEL. We will put his statement in the record.

[The statement follows:]

STATEMENT

OF

PENNSYLVANIA AFL-CIO

ON

SENATE BILL 3106

TOCKS ISLAND LAKE PROJECT DE-AUTHORIZATION

BEFORE

SUBCOMMITTEE ON WATER RESOURCES
COMMITTEE ON PUBLIC WORKS
UNITED STATES SENATE
HON. MIKE GRAVEL, CHAIRMAN

July 23, 1976

Harry Boyer, President
Pennsylvania AFL-CIO
101 Pine Street
Harrisburg, Pennsylvania

Pennsylvania AFL-CIO President Harry Boyer requests that the Water Resources Subcommittee include this Statement in its record of hearings on Senate Bill 3106, the bill that would de-authorize the Tocks Island Lake Project.

The Pennsylvania AFL-CIO's membership includes nearly two million men and women who work for a living or who are unemployed because of our depressed economy. Our first concern therefore, is that there be productive, remunerative employment for all who are able. Beyond this, the AFL-CIO assumes an active role in assuring that appropriate public steps are taken to assure our members necessities of life that may be otherwise threatened and to provide amenities that make the laborer's life a little easier.

The most immediate benefit to be derived from the Tocks Island project is the substantial boost to the economy of the area. About 1,000 man-years of labor will be utilized in building the Lake and its ancillary improvements, with another 500 to 800 for the pumped storage facilities.

The public welfare burden in this country is becoming oppressive as more and more people need help because the job market is constantly shrinking. The Tocks Island project will allow many persons to be productively employed who otherwise will need public help.

The most important value, however, is that this productive employment will be for the purpose of meeting public necessities of a magnitude not usually understood. Make-work for work's

sake is no great benefit.

Providing a reservoir of water to assure release of water in time of severe drought to millions of city residents who have no alternate source when the river turns to mud is no make-work.

Providing a reservoir to hold back flood water that otherwise rages destructively out of control destroying everything in its path is no make-work.

Providing the water and facilities for over a million KW of peaking power during the 8 busiest hours of the day to prevent black-outs, industrial shut-downs, etc. is no make-work.

Providing relaxing, health-giving recreational facilities for literally several millions of people, many of whom are crammed into oppressively small living spaces in their city homes - is no make-work.

The Tocks Island project, in which already a substantial amount of public moneys have been invested, is truly a conservation project of shining, visionary proportions, capable of saving millions of dollars worth of property from destruction and providing truly elementary necessities. Yes there will be some ecological impact. Eutrophication takes place in every lake there is, whether natural or man-made. The environmental and ecological consequences are absolutely infinitesimal compared with the incomparable benefits millions of people will receive.

We believe there exists a deep obligation on the part of public officials to conserve and utilize our resources so as to

assure that necessities of life are available, and that life and property are protected from the uncontrolled ravaging rampages of nature.

Every alternative to the Tocks Island Lake Project has been reviewed and analyzed time and again. There is no alternative now before this hearing which can alter or modify conclusions previously reached by every responsible private and government agency concerned with consideration of the totality of impact on the health, welfare, safety and economy of the Delaware River Basin.

The studies which were recently completed by Madison/Praeger, Inc. were intended to produce all possible information and resource materials needed to allow a reasonable decision on Tocks Island finally to be made. We cannot concur in any action which would make the expenditure of $1.5 million a nullity in the decision making process. A vote for de-authorization of this needed project would be a statement that one of the most exhaustively-studied projects concerned from the needs of a major industrial, commercial and residential area cannot be resolved. Such a statement contradicts the common sense of every reasonable person who has read that study.

To "postpone" the Tocks Island project (actually Senate Bill 3106 would kill, not postpone it) is to abdicate a public responsibility to provide for future public needs. Let not the tunnel vision of those who consider the displacement of a flea a major ecological disaster but who close their eyes to massive human

deprivation weaken the Congress' will to make possible the great human benefits the Tocks Island project (along with others like it) provides.

If there is any figure to be placed into the Tocks Island project equation which has not received full attention it is the employment to be provided. Against the benefits of productive employment, the human dignity of a full employment policy created, and the higher standard of living to be enjoyed by so many, the theoretical and elitist environmental concerns can have no substantial weight. We, too, are conservationists; we, too, want our nation's resources conserved for future generations. But, above all, we wish to conserve the environment for healthy, actively-employed, productive tax-paying citizens enjoying to the fullest a healthy economy. The Tocks Island Lake Project is the only alternative to meet the needs of the Delaware River Basin which properly weighs the human equation which considers people in every essential aspect.

The AFL-CIO, as a steward of America's greatest resource - the men and women who produce the wealth of this nation through productive labor - must continue to insist that the debate on Tocks Island Lake Project has ended. The facts are in. The project is essential to our region. Senate Bill 3106 must be defeated and the goals of flood control, water quality and supply, electric power generation, recreational and economic opportunity implemented now.

Respectfully submitted,

Harry Boyer, President
Pennsylvania AFL-CIO

Mr. MARCIANTE. In addition, I have a letter from the AFL–CIO legislative department director, Andrew J. Biemiller, in opposition to the proposed legislation, Senate 3106.

Senator GRAVEL. That will be in the record also.

[The letter follows:]

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July 23, 1976

Honorable Mike Gravel, Chairman
Subcommittee on Water Resources
Committee on Public Works
Washington, D. C. 20510

Dear Mr. Chairman:

On behalf of the American Federation of Labor and Congress of Industrial Organizations I wish to express our strong opposition to S. 3106, a bill which would de-authorize and forbid future construction of the Tocks Island Dam on the Delaware River in New Jersey. In so doing, we support the position of the New Jersey State AFL-CIO.

The basic issue involved in this project is the future water supply of an important area in New Jersey and the future of hundreds of thousands of people who reside and work there. The Delaware River Compact among the four (4) states through which this river and its tributaries pass is the basic arrangement upon which the water of the Delaware River system is apportioned to the states comprising the Commission. After a period of litigation among the affected states the United States Supreme Court gave New Jersey an entitlement of 100 million gallons per day of which 65 million gallons is now used for various beneficial purposes.

One only needs to recall the great drought of 1964 which gripped the entire East Coast to recognize how important the storage afforded by the Tocks Island Project would be if a similar drought cycle afflicted the region.

The major purpose of Tocks Island was for future water storage in order to provide insurance against deprivation of water for human use and for a long period of drought. The action of the Delaware River Basin Commission recommending de-authorization of this project is therefore beyond our comprehension and should be deplored by every citizen in the affected area.

A recent statement by the Water Commissioner of Philadelphia, Pennsylvania declared that the entitlement of New Jersey for 100 million gallons per day was conditioned on the storage afforded by the Tocks Island Project. He added that de-authorization of this project would raise once again the issue of how much water the State of New Jersey had the right to expect under the compact. It is not hard to see that de-authorization would probably plunge the whole future of the division of water among the Delaware states into a new series of lengthy litigation in the Federal Courts.

It can be added that the AFL-CIO has great interest in a $400 million project which will provide a large number of construction and satellite jobs in an area where the unemployment rates are extremely high. The Tocks Island Project would also provide valuable flood control storage. But what overshadows the entire question is whether or not, by this action, this region, during the kind of drought as that which struck it in 1964, will be able to fall back on insurance storage that would be provided by the Tocks Island Project or repeat the experience of that same drought. Certainly the citizens of this area are entitled to a better expectation than water rationing and pumps sucking mud from wells instead of water, and in other ways will be subjected to situations which could be precluded by wise action today.

The wise action today is rejection of S. 3106 by this Committee and proceed with the construction of this needed public work.

Sincerely,

Andrew J. Biemiller

Andrew J. Biemiller, Director
DEPARTMENT OF LEGISLATION

Mr. MARCIANTE. Senator, I have listened to a great deal of testimony this morning, just as you have had to listen. There is a point that I would like to make. I have lived along the Delaware River all my life. I have enjoyed the bounties that it has provided, its swimming, camping facilities, and fishing. And I have also had the experience of having dreaded fear when the river was in flood, as it wiped out my home in 1955, as I lived along the river in Bucks County at the time.

I was able to save my wife and two small children by taking them out of that raging river in a canoe. So when I hear the testimony of those who have not experienced the bounties that the river can provide, I smile to myself at times. And sometimes I get very nervous, because I am a little high strung.

One of the incidents that amazed me was the testimony of the commissioner of Bucks County who cited the need for deauthorization. I was a resident of Bucks County, as were thousands of other people who were affected by the flood in 1955. I don't know where that gentleman came from, but I really question the fact that he is from Bucks County.

I can't begin to recall the number of times in the past 10 years that I or some other representative of the AFL–CIO has appeared before a committee or commission, either here in Washington or in New Jersey, to plead the cause of the Tocks Island Dam and Reservoir project.

Each time we have faithfully recited the litany of very real, very pressing human and social needs which this project, and only this project, can provide. Each time we have left confident that commonsense and concern for the welfare of millions of residents in several States would finally prevail. Each time we have been disappointed and at a loss to understand how political considerations and blind, emotional appeals could continue to distort an issue as basic as this.

The history of the Tocks Island Lake proposal has been one of delay, of study, of restudies, of further delays. Until today we are confronted with the final and greatest irony of all—Senate bill 3106, a piece of legislation which would deauthorize the project forever, a piece of legislation which says, in effect, that the enormous problems and needs that led to the conception of the Tocks Island project no longer exist—indeed, never did exist.

The problems and needs which existed in 1961 when the project was introduced are even more prevalent today. The affected area is still faced with the threat of disastrous flooding along the Delaware River. The Northeast section of our Nation is still faced with the threat of a potentially disastrous drought. Our heavily populated and industrialized State and region is still faced with the threat of a crippling energy shortage. And we are still faced with the need for providing wholesome and readily available recreational facilities for our urbanized and growing population.

That is what the Tocks Island project is all about. It is the best, and we believe, only viable means of guaranteeing flood controls, an adequate supply of water and energy, and increased recreational opportunities for residents of the Delaware Valley and the tri-State area. It will control, conserve, and preserve the sometimes destructive,

often deficient but always indispensable water and land resources of that region and immeasurably improve the human environment. That must be our first priority.

To now deauthorize a project which has already been congressionally approved and federally funded, and which has been declared engineeringly sound and is ready for immediate construction, would be a monstrous mistake. If we don't learn from past experience and failings, we are bound to repeat them.

The lower Delaware River has a long and tragic history of flooding. The Delaware Valley has been victimized by flooding eight times in this century, the most recent example occurring in 1955 when Hurricane Diane resulted in 11 deaths and hundreds of millions of dollars in damages.

Incidentally, Senator, at the time of that flood we were pushed out of our house, and I took up residence in the home of the Congressman from Mercer County, Congressman Thompson's mother's home, as a refuge. And we were damned near pushed out of that house because the floodwaters began to reach the front steps.

Those alternatives to Tocks Island that everyone is talking about are inadequate, impractical, and unrealistic. A series of smaller dams along the tributaries would consume much more land and cost much more, in unobtainable State funds, than Tocks Island. Strict flood plain zoning could prevent future development in hazardous areas, but it does nothing to protect the thousands of residents and more than 2,000 private and commercial dwellings already existing in the flood zone.

Controlled releases from Tocks Island Dam will help protect Philadelphia's water supply from saltwater intrusion. It will provide a substantial source of water supply for the northeastern counties of New Jersey and for rapidly growing industrial needs. It will supply the regional water system being developed for Bucks and Montgomery Counties. It will assist in meeting increasing agricultural demands for irrigation water. It will be beneficial to our underground water supply by raising the water table.

There is now a water shortage, and it is getting worse. We need water for domestic purposes, industrial purposes, for health purposes, for firefighting purposes, for dozens of human needs. Tocks Island represents the best answer—indeed, the only answer, to these critical needs. It would insure New Jersey of a water supply for the next 50 years.

Incidentally, we hear mentioned there are other water sources available to New Jersey. I make this point to you, Mr. Chairman, that in a number of areas in our State where we have landfill operations, they are beginning to discover that there is a pollution of the underwater tables, and that pollution is caused by the landfills. Here is a source that is untouched, and we can increase the water table in this area.

It will help insure an adequate supply of drinking water for 22 million people in the metropolitan area.

No other alternative yet devised even approaches the benefits or total supply represented by the Tocks Island proposal—not flood skimming, not desalination, not restrictive quotas, not even taking New York's share of the Delaware waters. And even if some valid

alternative were miraculously found, it would be years away from fruition and it would require hundreds of millions of dollars of State funds—funds that are not now available and will not be in the foreseeable future. Anyone who knows New Jersey's tax and financial picture must know that.

In the face of all this, deauthorizing the project now would be more than unconscionable; it would be criminal.

The State AFL-CIO is opposed to the theory set forth by so-called ecologists that the land be brought up and maintained in its virgin state as a recreation area. First, existing law does not authorize acquisition of the property for recreation without the reservoir, and it is unrealistic to think it will happen.

Second, the idea smacks too much of creating an elitist preserve that would not and could not benefit the vast majority of New Jersey's residents. Only a chosen few nearby landowners with time and money to spare could make use of it.

Gentlemen, the tri-State area desperately needs the multipurpose Tocks Island project. To deauthorize it now, when we have come so far, would not only result in an unthinkable loss of time and money; it would delay an effective program of flood control and water and energy supply for decades, most likely forever. I don't think we can afford to take that kind of risk with the lives and economic welfare of millions of people.

I have tried to point out here today that the magical alternatives being set forth are really no substitute at all. They are merely one more delaying obstacle created by those who would destroy this project permanently in favor of some senseless, sacrosanct status quo for the region. "Don't tamper with the natural habitat," they insist.

But I would suggest to you that change is never easy, but man has always harnessed and controlled nature when he found it was necessary for his welfare, and it is necessary now in the Delaware Valley.

No single alternative can accomplish even a small percentage of what the versatile Tocks Island project will provide. And an adequate combination of alternatives would be so financially prohibitive that they would never be undertaken. Furthermore, any viable alternative would have its own adverse effect which would make it no less controversial than the existing proposal.

To deauthorize Tocks Island in hopes of finding some alternative would surely be to subject the officials and residents of our region to an endless, helpless cycle of debate. Even Governor Byrne and his Environmental Commissioner, David Bardin, both of whom opposed immediate construction of the project, have cautioned against abandoning it.

As with the alternatives, the arguments and complaints raised against construction of the Tocks Island project are inadequate and have been largely disproven. Sure there will be some detrimental impacts, but any human endeavor is subject to that. We cannot use it as an excuse for complacent paralysis.

The eutrophication argument has been dispelled by any number of water experts. Claims that the lake will be polluted are without basis. Through supervision for further reducing the insignificant quantity of phosphorus, nutrients entering the Delaware from above is readily available. The project will not have an adverse impact on wildlife in

the region. A Department of the Interior study shows wildlife will fare better under uniform management and development programs than under private development.

Other adverse impacts can be greatly reduced by the implementation of adequate land use controls and the development of a well-coordinated local, State, and Federal program for recreation development, traffic management, and the resolution of public support requirements.

The need is there. The project has received widespread support from many segments of society. The potential benefits far outweigh any adverse effects that might result.

There are detractors; there always will be. But you and I, and all those who must be concerned primarily with human needs and progress, must be realistic enough to recognize and pursue what is best for the greatest number of people.

The New Jersey State AFL–CIO adamently opposes S. 3106 and deauthorization of the Tocks Island Dam and Reservoir project, and instead supports its immediate construction and completion.

Senator, I thank you for giving us the opportunity of making this testimony today.

Senator GRAVEL. Thank you. I have no questions.

[Mr. Marciante's written statement follows:]

CHARLES H. MARCIANTE EDWARD PULVER
RICHARD A. LYNCH VINCENT J. MURPHY
PELLETTIERI AND RABSTEIN

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TESTIMONY
of
CHARLES H. MARCIANTE, PRESIDENT
N. J. STATE AFL-CIO
before
THE WATER RESOURCES SUBCOMMITTEE
of
THE UNITED STATES SENATE PUBLIC WORKS COMMITTEE
on
PROPOSED DE-AUTHORIZATION OF THE TOCKS ISLAND LAKE PROJECT
JULY 26, 1976

On behalf of the 750,000 members of the New Jersey State AFL-CIO, I want to thank you Mr. Chairman for the opportunity to appear before the committee today.

I can't begin to recall the number of times in the past 10 years that I, or some other representative of the AFL-CIO, has appeared before a committee or commission, either here in Washington or in New Jersey, to plead the cause of the Tocks Island Dam and Reservoir Project.

Each time we have faithfully recited the litany of very real, very pressing human and social needs which this project - and only this project - can provide. Each time we have left confident that common sense and concern for the welfare of millions of residents in several states would finally prevail. Each time we have been disappointed and at a loss to understand how political considerations and blind, emotional appeals could continue to distort an issue as basic as this.

The history of the Tocks Island Lake proposal has been one of delay, of study, of re-studies, of further delays. Until today we are confronted with the

final and greatest irony of all: Senate Bill #3106, a piece of legislation which would deauthorize the project forever. A piece of legislation which says in effect that the enormous problems and needs that led to the conception of the Tocks Island project no longer exist -- indeed, never did exist.

I have spent so much time in the past decade begging for the immediate construction of the project, that I find it difficult, even impossible, to sit here today and simply argue against final deauthorization of this magnificent proposal. It just doesn't make sense. It's like arguing the case for some fundamental or scientific truth so obvious that it should not need repeated defense or explanation.

Instead, I want to briefly reiterate the reasons why Tocks Island was conceived, restate the reasons why the AFL-CIO has in the past and continues now to vigorously support the project, and refute those who would have us believe that by deauthorizing the project we will open the way for implementing one or several of the alternatives.

The problems and needs which existed in 1961 when the project was introduced are even more prevalent today: the affected area is still faced with the threat of disastrous flooding along the Delaware River...the Northeast section of our nation is still faced with the threat of a potentially disastrous drought... our heavily populated and industrialized state and region is still faced with the threat of a crippling energy shortage...and we are still faced with the need for providing wholesome and readily available recreational facilities for our urbanized and growing population.

That's what the Tocks Island project is all about: it is the best and, we believe, only viable means of guaranteeing flood controls, an adequate supply of water and energy, and increased recreational opportunities for residents of the Delaware Valley and the tri-state area. It will control, conserve and preserve the sometimes destructive, often deficient, but always indispensable water and land resources of that region and immeasureably improve the human

environment. That must be our first priority.

To now deauthorize a project which has already been Congressionally approved and federally-funded, and which has been declared engineeringly sound and is ready for immediate construction, would be a monstrous mistake. If we don't learn from past experience and failings, we're bound to repeat them.

The lower Delaware River has a long and tragic history of flooding. The Delaware Valley has been victimized by flooding eight times in this century, the most recent example occurring in 1955 when Hurricane Diane resulted in 11 deaths and hundreds of millions of dollars in damages.

Newspaper accounts will also tell you that it took a last minute helicopter rescue to save several hundred boys trapped on three islands in the middle of the raging river and numerous isolated families caught in its wake.

I personally experienced that flood, evacuating my wife and children from our home by canoe: the homes of two other members of my family were also inundated by flood waters. Only last July, following several days of torrential rains, many tributaries jumped their banks causing extensive havoc in Mercer County, and the river itself came within a few feet of swamping Trenton.

I have to laugh at those zealots of a "free-flowing" Delaware. Very poetic indeed, but if "free-flowing means living in constant fear for your life, or of bankruptcy, then I say it's time to erect some restrictive controls.

By constructing a dam across the river, five miles above the Water Gap, we can greatly reduce and almost eliminate the threat of massive flooding and loss of life and property in those flood plain communities below the dam where the average annual danger is estimated at $4.5 million a year. They include: Belvidere, Phillipsburg, Trenton and Burlington in New Jersey, and Easton, Riegelsville, New Hope and Yardley in Pennsylvania.

Without the dam, prayer will be the only preventative measure left to many residents along the Delaware River.

Those alternatives to Tocks Island that everyone is talking about are inadequate, impractical and unrealistic. A series of smaller dams along the tributaries would consume much more land and cost much more (in unobtainable state funds) than Tocks Island. Strict flood plain zoning could prevent future development in hazardous areas, but it does nothing to protect the thousands of residents and more than 2,000 private and commerical dwellings already existing in the flood zone.

And, flood insurance is such a ludicrous alternative that it defies description. That's comparable to saying the best way to fight cancer is to provide compensation to survivors.

No gentlemen, Tocks Island is the best answer to flood control within the Delaware Valley. It cannot compensate for the loss of life, property and business that has already taken place, but the control of future floods can at least offset the fears of those people who continue to live and work in the mainstream of the Delaware.

Tocks Island will also serve another critical and growing need for Northern New Jersey and other key sections of the tri-state area: it will provide 300 million gallons of additional water each day and act as a safeguard against the type of drought which New Jersey and Philadelphia experienced in the mid-sixties -- a drought so severe that we were within weeks of pumping mud out of our water pipes and reservoirs.

The threat of drought or a damaging water shortage has not disappeared - it has increased. Study after study indicates that New Jersey, New York and Pennsylvania are already in a precarious position concerning current water needs, and that unless new and adequate resources are quickly provided, future needs will go unmet.

The Governor's Capital Needs Commission and the legislative Musto Commission have both pointed out the desperate need for additional water.

Depending on our future economic growth, water supply needs in northern New Jersey alone will be anywhere from 300 to 800 million gallons a day by 2025. It's been estimated that New Jersey will face a 50% cut back in its water supply over the next few decades, unless new sources are tapped.

Where is it going to come from? We can't depend on a "free-flowing" Delaware. The river has suffered 10 major droughts in the past 50 years, the worst occurring between 1961 and 1967 - that drought served as a stimulant for the Tocks Island proposal. And let me emphasize, New Jersey's water supply system was in better shape going into that drought than the present system would be in the event of a similar drought.

The problem is universal. Right now a serious blight is plaguing parts of the U. S. and nearly all of Western Europe. But how much more disastrous would a drought be in the densely populated, highly industrialized Northeast where an adequate water supply is absolutely essential to our continued economic, industrial, and even physical survival?

Gentlemen, there is now a water shortage and it's getting worse. We need water desperately for domestic purposes, for industrial purposes, for health purposes, for fire-fighting purposes, for dozens of human needs, and Tocks Island represents the most realistic and immediate answer - indeed the only answer - to these critical needs. It would assure New Jersey of a reliable water supply for the next 50 to 75 years.

Controlled releases from Tocks Island Dam will help protect Philadelphia's water supply from salt water intrusion; it will provide a substantial source of water supply for the northeastern counties of New Jersey and for rapidly growing industrial needs; it will supply the regional water system being developed for Bucks and Montgomery counties; it will assist in meeting increasing agricultural demands for irrigation water; it will be beneficial to our underground water supply by raising the water table; it will help insure an adequate supply of

drinking water for 22 million people in the metropolitan area.

No other alternative yet devised even approaches the benefits or total supply represented by the Tocks Island proposal: not flood skimming, not desalination, not restrictive quotas, not even taking New York's share of the Delaward waters. And even if some valid alternative were miraculously found, it would be years away from fruition and it would require hundreds of millions of dollars of state funds - funds that are not now available and will not be in the forseeable future. Anyone who knows New Jersey's tax and financial picture must know that.

In the face of all this, deauthorizing the project now would be more than unconscionable, it would be criminal.

Then there is the question of the 1.3 million kilowatts of clean hydro-electric power which the Tocks Island project could supply for the public's peak energy needs. The Basin's need for energy, one of the most populous, industrialized sections of the country, is critical. Its great concentrations of people, commerce and industry are organized on the basis and availability of electric power. They simply cannot function without it, even for brief intervals, without damaging and potentially dangerous consequences.

Despite curtailment and conservation of energy, there is already a shortage and it will only get more critical as the years advance. The demand for electricity has doubled each decade since 1950, and all factors indicate it will double again in the next 10 years. It is a fact of life in a mechanized, automated society and to assume or act otherwise is foolish.

Electricity rates have already fallen prey to inflation, and unless new sources are quickly made available, consumer costs will spiril out of sight. Both the Federal Power Commission and the U. S. Department of Interior agree that low cost electric power could be produced at the dam site, and it can be done in environmentally clean conditions.

In our energy starved nation, with needs and costs accelerating every day, how can we afford to ingnore this new source of electric power and supply, especially in the face of increasing brown-outs and black-outs?

Again, there are those who list solar energy, or nuclear energy, or gas or oiled-fired turbines as possible alternatives, but they are no substitute in terms of reliability or availability, or in the much higher cost it takes to produce them. And remember, these are the same people who are campaigning against off-shore drilling for oil and gas, and the installation of nuclear energy plants. In truth, there is no alternative that will ever satisfy them, except perhaps restrictive quotas, and delay after delay, that is a terribly risky, unrealistic alternative.

Finally, development of the Tocks Island Dam and Reservoir project would create an unparalleled recreational area of varied uses within easy access of millions of city dwellers. As this country continues to grow to its full potential, it is imperative that we provide our workers and citizens with every available recreational opportunity.

Tocks Island with its hundreds of thousands of acres of national park land and 37 miles of lake would offer endless opportunities for all types of water and land-based activities, including swimming, boating, camping, hiking, hunting and motoring. And, it would all be located in one of the most scenic areas of the entire Northeast, yet within 90 minutes of major cities. It would be a truly magnificent conservation undertaking with benefits lasting many generations.

The State AFL-CIO is opposed to the theory set-forth by so-called ecologists that the land be bought-up and maintained in its virgin state as a recreation area. First, existing law does not authorize acquisition of the property for recreation without the reservoir, and it's unrealistic to think it will happen.

Second, the idea smacks too much of creating an "elitist preserve" that would not and could not benefit the vast majority of New Jersey's residents. Only a chosen few nearby landowners with time and money to spare could make use of it.

Gentlemen, the tri-state area desperately needs the multi-purpose Tocks Island project. To deauthorize it now, when we have come so far, would not only result in an unthinkable loss of time and money, it would delay an effective program of flood control and water and energy supply for decades, most likely forever. I don't think we can afford to take that kind of risk with the lives and economic welfare of millions of people.

I have tried to point out here today that the magical alternatives being set forth are really no substitute at all. They are merely one more delaying obstacle created by those who would destroy this project permanently in favor of some senseless, sacrosanct status quo for the region. "Don't tamper with the natural habitat," they insist.

But, I would suggest to you that change is never easy, but man has always harnessed and controlled nature when he found it was necessary for his welfare, and it is necessary now in the Delaware Valley.

No single alternative can accomplish even a small percentage of what the versatile Tocks Island project will provide. And, an adequate combination of alternatives would be so financially prohibitive that they would never be undertaken. Furthermore, any viable alternative would have its own adverse effect which would make it no less controversial than the existing proposal.

To deauthorize Tocks Island in hopes of finding some alternative would surely be to subject the officials and residents of our region to an endless, helpless cycle of debate. Even Governor Byrne and his Environmental Commissioner David Bardin, both of whom opposed immediate construction of the project, have cautioned against permanently abandoning it.

As with the alternatives, the arguments and complaints raised against construction of the Tocks Island project are inadequate and have been largely disproven. Sure there will be some detrimental impacts, but any human endeavor is subject to that. We cannot use it as an excuse for complacent paralysis.

The eutrophication argument has been dispelled by any number of water experts. Claims that the lake will be polluted are without basis; thru supervision for further reducing the insignificant quantity of phosphorus nutrients entering the Delaware from above is readily available. The project will not have an adverse impact on wildlife in the region. A Department of Interior study shows wildlife will fare better under uniform management and development programs than under private development.

Other adverse impacts can be greatly reduced by the implementation of adequate land use controls and the development of a well coordinated local, state and federal program for recreation development, traffic management and the resolution of public support requirements.

The need is there. The project has received widespread support from many segments of society. The potential benefits far outweigh any adverse effects that might result.

There are detractors - there always will be. It is their livelihood. But you and I, and all those who must be concerned primarily with human needs and progress, must be realistic enough to recognize and pursue what is best for the greatest number of people.

The New Jersey State AFL-CIO adamently opposes S #3106 and desuthorization of the Tocks Island Dam and Reservoir project, and instead supports its immediate construction and completion.

Respectfully submitted,

Charles H Marciante

Senator GRAVEL. Our next witness is William Matson.

STATEMENT OF MARIAN FURMAN ON BEHALF OF WILLIAM F. MATSON, GENERAL MANAGER, PENNSYLVANIA RURAL ELECTRIC ASSOCIATION, HARRISBURG, PA., ACCOMPANIED BY MORGAN DUBROW, STAFF ENGINEER, NATIONAL RURAL ELECTRIFICATION COOPERATIVE ASSOCIATION, WASHINGTON, D.C.

Ms. FURMAN. Obviously, I hope, my name is not William Matson. I am Marian Furman, and I am here on behalf of Mr. Matson, who was not able to appear today.

Senator GRAVEL. I would hope that in the interest of time you will be able to summarize your statement as best as possible.

Ms. FURMAN. I am not going to read it, and, hopefully, my summary or remarks will be short.

I serve as General Counsel for the Pennsylvania Rural Electric Association, which is the Pennsylvania statewide trade association for the 13 consumer or nonprofit rural electric cooperatives in Pennsylvania and one in New Jersey—14 in all.

The cooperative in New Jersey is located at Sussex, N.J., and has a very direct interest, along with the other cooperatives in the proposed Tocks Island Reservoir.

We support the Tocks Island project and we oppose S. 3106 to deauthorize the project. The consumer cooperatives cannot afford the luxury of being either on the side of so-called rapists of our priceless natural resource treasures or the luxury of zero resource development. They have to find a rational balance in providing a necessary service for themselves.

These consumer-owners are concerned about the environment in which they live. We have a concern for the total quality of life in the communities in which we provide electricity for ourselves. In that search to find a rational balance, multipurpose reservoirs such as Tocks Island appear to be the best bet for the people.

You know where the cost of coal and oil has gone. The scarcity of oil—the political and international ramifications of trying to use oil to provide our basic energy while coal may be a better resource in the near future and we will find better ways to mine it and use it with less environmental effects. Nevertheless, today water represents the least pollution to the environment, the least costly, and it is not consumed or exhausted as it is used to provide electricity.

Therefore, in today's circumstances, we believe it is beyond argument that our water resources must be developed for the energy that we recognize that we must have.

I have heard a number of witnesses here today refer to the Madigan-Praeger report. I have read that report, parts of it, and I have certainly read the summary. I am convinced there are several Madigan-Praeger reports, because we seem to have read very different recommendations and studies.

My impression was that this study, which cost, I believe, over $1 million to prepare, points out that, yes, there are some other alternatives to Tocks Island, but that taken together and compared with this one multipurpose project, they are nowhere near as good.

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Now, I think that point has to be made. It is unfair to just say that the experts have said there are other alternatives without also saying that, taken as a whole, they cannot nearly compare with the Tocks Island project.

I also heard the statement that the Delaware River Basin Commissioners voted against the project. Now, that simply is not true. And if the rest of the so-called facts presented here by the opponents of that reservoir are as accurate as the few that I do know about, then I think we have to seriously question the validity of the opposition.

The Governors of the States that make up the Delaware River Basin Commission voted to postpone that project. They did not vote against it. I think that is a very important distinction. And I think that the studies that were prepared for Governor Byrne those officials have been taking another look, and they are becoming more concerned about New Jersey's water supply.

I live in Pennsylvania. I am aware of the series of court decisions. The States along the Delaware River have been fighting for the too scarce water from that river for 50 years. In the middle fifties the U.S. Supreme Court decreed that the State of New Jersey could take, I believe up to 100 million gallons daily for transbasin use on the condition that it support a reservoir on the main stem.

That decree has been violated. Now, we do not want to fight with our sister State, but believe you me, if we must go back into the courts to preserve our water rights, we will do it.

We hope that the committee and the Congress will not make that question moot and render null the decree of the U.S. Supreme Court.

We can put, perhaps, the benefits of at least the hydropower from Tocks Island in some perspective. The rural electric cooperatives of Pennsylvania and the one in Sussex, N.J., enjoy the benefits from the hydropower from Niagara River. About 40 percent of our total energy needs come from that source. The other 60 percent we buy from private power companies, and they are fossil fuel and nuclear. That 40 percent saves us $7.5 million a year. That is, that is what it has saved the rural electric consumers in Pennsylvania in 1975, $7.5 million, and we serve 135,000 families. Now, that adds up, if my arithmetic is correct, to $55 per year, per family, and that is not bad. And that is with less than half the total power coming from that source.

We still pay 5 mills, 0.5 cent, for the power, while we are forced to pay 2½ to 3½ cents for the rest of the power that we are buying from other sources.

This seems to us a pretty cogent reason, another reason, to develop our water resources for hydropower, and in particular Tocks Island.

We believe that it is rather fraudulent on the part of those who do not want to develop water resources for the basic uses of water unless they are willing to forgo public water sources themselves. And we believe it is rather fraudulent of these people to say that we should not develop our water resources for electricity unless those people are themselves willing to go without the benefits of electricity.

And we believe that it is fraudulent for these people to deny others the benefits of recreation or flood control and water during droughts unless they are willing to suffer the serious handicaps that come from lack of control in these areas.

We have two visions. On the one hand we see the Delaware River Basin area and its multimillions of people in the large urban centers having no electricity to cook or to bathe. We see them sitting in stifling heat in the summertime and cold in the wintertime. We see them literally without food, as ravaging floods destroy the farmland. And we see homes washed away in times of flood.

On the other hand, we see quite a different vision. We see a large area with multimillions of people well served, having a measured supply of water, their homes protected, their food available; they are able to stay cool in the summertime and warm in the wintertime and have a place to go to have body-refreshing recreation to get away from the stifling effects of living in too-crowded cities.

We ask, which of these visions do you choose? We know which one we want. We support the Tocks Island project and oppose the legislation.

Senator GRAVEL. Thank you very much.

[Mr. Matson's statement follows:]

STATEMENT

OF

PENNSYLVANIA RURAL ELECTRIC ASSOCIATION

ON

SENATE BILL 3106

TOCKS ISLAND LAKE PROJECT DE-AUTHORIZATION

BEFORE

SUBCOMMITTEE ON WATER RESOURCES
COMMITTEE ON PUBLIC WORKS
UNITED STATES SENATE
HON. MIKE GRAVEL, CHAIRMAN

July 23, 1976

William F. Matson, General Manager
and Executive Vice President
Pennsylvania Rural Electric Association
2929 N. Front Street
Harrisburg, Pennsylvania 17110

This statement is submitted to the Water Resources Subcommittee by William F. Matson, General Manager and Executive Vice President of Pennsylvania Rural Electric A-sociation, on behalf of its 14 consumer-owned rural electric distribution cooperatives (13 in Pennsylvania and 1 in New Jersey) and the half-million rural consumers they serve. Pennsylvania Rural Electric Association thanks the Subcommittee for soliciting views on Senate Bill 3106 and the Tocks Island Lake project.

More than three decades ago groups of rural people - with little money but lots of driving human spirit - formed rural electric cooperatives all across the nation's countryside, to meet the urgent need of millions of rural dwellers for light and power. The consumer owned, non-profit electric systems have had to struggle against powerful opposition and natural odds just to gain access to power at any cost, let alone at reasonable cost. Those struggles have paid off to the extent that lines now reach out to remote farms and rural homes everywhere. Today nearly 1,000 of these rural electric cooperatives provide central station power to people who live in America's small towns and rural areas --- people who otherwise would very likely have to go without the electric service, but all the things in life that electric service makes possible.

Rural electric cooperatives in Pennsylvania serve rural areas in over half the counties of the Commonwealth; capital investment in plant is approaching $100 million dollars; more than 21,000 miles of line has been erected. We deliver more than $20 million

dollars worth of energy to more than 600,000 persons residing in forty counties in Pennsylvania, and five counties in New York, New Jersey and Maryland. We provide jobs for more than four hundred persons with an annual payroll in excess of $600,000. In addition to direct economic benefits brought by jobs and payrolls, we provide a substantial tax base and contribute the organized leadership to communities we serve, providing a source of continuing cultural, social and political awareness to enrich their lives.

It is this spirit of caring that makes cooperatives different from other businesses, and no type of cooperative embodies that spirit more than a rural electric cooperative. Our cooperatives always care, in all ways, about their communities, their country, their young people, the environment, helping their members make a better living and build better lives for themselves and others. We are environmentally aware, responsible conservationists. We live daily what others experience only in theory. We have an immediate, vested interest in the ecology of Pennsylvania. We do not view the impact of changes on our environment as an academic exercise, but as a major influence in our lives. We do not lightly, or frivolously, entertain programs which affect, not only our lives, but the stewardship of natural resources for future generations. It is this spirit of caring that brings us here today.

New crises and new conflicts confront the consumer today, none more serious or difficult to resolve than those associated with access to adequate energy at a tolerable cost. We know that our nation must become energy independent if we are to survive as

a nation. We have already dragged our feet dangerously long in taking steps to attain energy independence for our nation. The U. S. energy insufficiency is imminent and grave. Nothing less than the American economy and security is at stake.

In the American public's struggle to find a rational balance between environmental protection and affordable energy production, hydro-power has to come out way ahead. Why is this important resource both so thoroughly neglected and maligned? In an era when the cost of coal and oil are prohibitive, their availability unreliable, and their use for power production hobbled because of environmental pollution concerns, in an era when nuclear is increasingly feared and scorned and postponed, our rivers go rolling on, freely offering a source of power that is neither damaging to air quality nor even consumed in its use. In addition, the reservoirs that provide hydro-power also provide stored water supply, flood control, and recreation, thus by their multi-purpose functions reducing the public cost for each use.

Hopefully the Congress and the American public realize that giving in to the quixotic demands of some elitist interest groups for zero resource development will very soon turn our nation into a vulnerable, second-rate, crippled country. Hopefully also the negativism of unreconstructed liassez faire absolutists who see no role for government is rejected in the realization that our water resources are treasures too precious to be left entirely to private exploitation.

The Pennsylvania Rural Electric Association believes the time is at hand to develop fully and now the potential that Tocks Island Lake project holds for multi-benefits to a large urban population in the Delaware River basin whose needs are severe and becoming critical.

There is over 1 million KW of peaking power energy to be obtained from pumped storage associated with Tocks. Because of the potential size of the facility, peaking power will be available for seven or eight hours a day, including through the critical afternoon hours. The PJM grid desperately needs this energy. While we are not members of the PJM pool our consumers are directly affected by inadequate energy at critical times within the PJM pool, because of our interconnections.

Tocks Island Lake is a singularly valuable conservation project. The states along the Delaware River have been fighting over its water rights for 50 years, with a history of bitter litigation. The U. S. Supreme Court in at least one of a series of decisions in the 1930's conditioned water withdrawal by New Jersey on the state's approval of a reservoir on the Delaware main stem to conserve water for low flow time availability, so that Pennsylvania residents would not be without drinking water. That decree has been violated. Pennsylvanians have been aggrieved. We need a remedy! We hope the Congress will not participate in complicity to deprive millions of people of the remedy the U. S. Supreme Court thought it had provided.

These same millions of people crowded together in the urban centers in the lower Delaware River basin need wholesome recreational

facilities to escape the oppression of living too close together. The accessibility of most certain use of Tocks by multi-millions of people warrants Federal investment in Tocks as a major recreational facility. If Tocks Island Lake were to be scuttled in favor of small reservoirs throughout the basin, the states would have to pick up the tab for any recreational facilities. In all probability there would then be very nominal recreational development. Tocks Island as proposed qualifies under the 1965 Water Resources Planning Act for Federal recreational funds because the project is of national significance, serving a multi-state region.

In summary, we see two potential, distinctly contrasting visions of the future for the area and the people encompassed by the Delaware River Basin. Our first vision is of an area in which several millions of people find themselves increasingly without several basic essentials of life. Sometimes they will not even have enough water to bathe, to cook, or even to drink. They will sit in darkness, they can't cook their meals, they can't cool themselves in stifling summer heat waves or heat their homes in winter cold spells, because there isn't enough electric energy for all needs. They will be unable to get away from it all and enjoy body-refreshing, wholesome recreation needed to overcome the stifling oppression of crowded centers, dirty, hot, and irritating. Food itself will be scarce in time of drought or floods. Periodically millions of dollars worth of valuable property will be destroyed, including priceless farm land; lives will be lost as uncontrolled floods race through the basin. As the water table drops, and particularly in times of low flow, waste disposal problems will

accelerate. The quality of life will become increasingly intolerable for these millions of now unsuspecting people.

On the other hand, we see a different vision for these same millions - a vast area in which one of Nature's incomparable treasures has been husbanded to augment its life-sustaining benefits one thousand-fold and harnessed to prevent its potential for uncontrolled devastation. A constant measured flow of life sustaining water, available in times of drought for agriculture, industry, electric power production and home use, because of conservation during times of excess flow. Potential mass destruction avoided - lives saved, property and industrial capacity protected during times of terrible floods. People's personal needs for water, food, light and power, comfort, and body and mind sustaining recreation met. An economy sustained. A good life for many.

This vision has as its center a beautiful, vast lake made possible by the sound humanitarian far-sightedness of the guardians of the public trust, the United States Congress, designed and built by the best engineers in the world, the U. S. Army Corps of Engineers, augmented by the technical and productive skill of utilities. This lake and its surrounding beautiful grounds will be enjoyed by millions, while simultaneously furnishing necessities of life for people far removed from the site of the lake.

Which vision will we choose? We plead with you, the members of this important Committee considering Senate Bill 3106, to bury

this legislation and view its introduction as only a temporary, faint weakening of the resolve to proceed with what your wisdom told you in the first place was a vitally needed major conservation project for the life, health, and welfare of many people in a several-state region.

Respectfully submitted,

William F. Matson

William F. Matson, General Manager
and Executive Vice President

STATEMENT OF MORGAN DUBROW, STAFF ENGINEER, NATIONAL RURAL ELECTRIFICATION COOPERATIVE ASSOCIATION

Mr. DUBROW. Senator, I am Morgan Dubrow. I am staff engineer of the National Rural Electrification Cooperative Association. I filed a statement, and I support the comments of Ms. Furman. Thank you very much.

Senator GRAVEL. Thank you.

[Mr. Dubrow's statement follows:]

STATEMENT OF THE
NATIONAL RURAL ELECTRIC COOPERATIVE ASSOCIATION
IN OPPOSITION TO THE TERMINATION OF
THE AUTHORIZATION OF TOCKS ISLAND RESERVOIR (S. 3106)
BEFORE
THE SUBCOMMITTEE ON WATER RESOURCES
COMMITTEE ON PUBLIC WORKS
JULY 26, 1976

Mr. Chairman, my name is Morgan D. Dubrow. I am the Staff Engineer of the National Rural Electric Cooperative Association (NRECA). NRECA is the national trade association of nearly 1,000 non-profit cooperatives which deliver central station electricity to approximately 25 million people in rural areas of the United States. There are cooperatives in 46 of the nation's 50 states. Our members are dependent on Federal Power facilities for about 1/3 of their power requirements. We are here in support of this excellent federal project which can aid in meeting the power requirements in the Mid-Atlantic region.

NRECA appears here today to reaffirm its support for the Tocks Island Reservoir Project. Our view of the impartial independent study made by Madison - Praeger, Inc., confirms the Corps of Engineers evaluative report of July 3, 1975 which concludes that Tocks Island Lake Project is engineeringly sound, economically justified and the benefits accruing from the project outweigh the institutional and environmental impacts. The Chief of Engineers recommended that the project proceed to construction and not be further delayed providing it had the full support of the Delaware River Basin Commission.

We believe that this independent study clearly sets out the dominant facts which establish beyond question that -- compared with all possible alternatives -- the Tocks Island Lake and the combined 1,300,000 kw Kittatinny Pumped Storage Development is the most appropriate way (socially, economically, and environmentally) to develop the water resources of the Delaware River Basin and satisfy the Compact for the benefit of the people, the economy, and the environment. For these reasons, we urge the Subcommittee to reject S. 3106 and reaffirm its support for this valuable multipurpose water resource project.

We have reviewed the excellent, comprehensive, 6 volume, 1.5 million dollar report made by Madison - Praeger, Inc., for the Corps of Engineers. We believe this report sets out the following salient points:

1. The Basin area will require much additional domestic, municipal, commercial, and industrial water supply by the time Tocks Island Lake or any possible alternative, can be constructed -- even if minimum population and economic growth are assumed.

2. Tocks Island Lake supplies the required water for the Basin area needs far more econimically than any possible alternative.

3. Any possible water supply alternative must be funded by its user States.

4. Tocks Island Lake enables New York to withdraw a larger amount of its authorized diversion from the upper Delaware, without critically reducing its downstream flow as in the past.

5. There is early need for all Tocks Island Lake water supply, even if none were assigned or released solely to improve or maintain water quality down in the estuary.

6. Tocks Island Lake provides cooling water essential for needed baseload electric power generators downstream, while maintaining fresh water flow to prevent degradation of the estuary.

7. Tocks Island Lake supplies 1.3 million kilowatts of (hydro-electric) peaking power, in an underground powerhouse at site, far more economically than any alternative and with conservation of oil. A portion of its annual power cost savings repays much of the construction cost of Tocks Island Lake.

8. Tocks Island Lake supplies flood protection needed for people and property donwstream.

9. Tocks Island Lake supplies water recreation for the needs and desires of large numbers of people.

10. Tocks Island Lake recreational use will not be seriously affected by drawdown or eutrophication, as demonstrated by the success of similar multipurpose reservoirs elsewhere.

Since the region needs peaking power and our members are dependent on Federal Power facilities for so much of their power requirements, we strongly oppose the deauthorization of the Tocks Island project. NRECA would respectfully urge the subcommittee to reaffirm its support for this project combined with the proposed 1,300,000 kw Kittatinny pumped storage project.

We understand that the proposed Kittatinny Pumped Storage Plant includes five reversible pump turbine units rated at about 260,000 kw each. The proposed project is assumed to include the capability for developing about 40,000 kw of firm conventional hydroelectric power.

We recognize and appreciate the fact that the Kittatinny Pumped Storage Plant is proposed for construction by the local private power companies. We recognize and support the need for this Pump Storage development which would bolster the Mid Atlantic Power Supply Region. The 40,000 kw of dependable power could supply about one fourth of the present power requirements of Pennsylvania and New Jersey rural electric cooperatives.

We invite the subcommittee's attention to the fact that the rural cooperatives and the private utilities are in full agreement in their support of this vitally needed project. In fact, in most localities throughout the nation the power needs are so critical that all utilities -- federal, public, private, and cooperatives -- have joined forces to meet power requirements. We have combined our efforts in support of research and development to meet the nation's power needs as economically as possible in an environmentally acceptable manner.

Our association has supported this project from its inception. I am proud to say that every factual review of the project has continued to demonstrate its great worth. In fact, the Tocks Island Reservoir will provide the essential storage capacity needed to enable the States and particularly the State of New Jersey to obtain its water entitlement under the terms of the Delaware River Basin Compact.

Before concluding my testimony, I respectfully state that it has been my privilege and life's work to be engaged in the planning, development, construction and operation of water resource projects throughout the entire United States. To mention a few I would point to, Bonneville and Grand Coulee Dam on the Columbia River in the States of Washington and Oregon; Shasta Dam in California; Hoover Dam on the Colorado River; Hartwell on the Savannah River between Georgia and South Carolina and literally dozens of other such multi-purpose River Basin Development Projects. It is my firm conviction and the record clearly demonstrates the tremendous value of these projects to our country.

I would end my statement by saying that the Tocks Island Lake and Power Development Project can achieve the same benefits for the Delaware River Basin. I again urge the subcommittee to reject the deauthorization bill (S. 3106) and reaffirm its support for this important project.

I wish to thank the committee for this opportunity to appear here today in support of this Project.

Senator GRAVEL. Our next witness is Kenneth Pyle.

I hope you will accommodate us and abbreviate your statement. The full statement will be put in the record.

STATEMENT OF KENNETH PYLE, SOCIETY FOR ENVIRONMENTAL AND ECONOMIC DEVELOPMENT, TRENTON, N.J., ACCOMPANIED BY LEWIS APPLEGATE

Mr. PYLE. Good afternoon. I read rather quickly. I think I can cover the ground.

I am Kenneth Pyle, president of the Society for Environmental Economic Development, known in New Jersey as SEED. I have with me this afternoon Mr. Lewis Applegate, who will provide a brief supplement to my statement upon completion.

SEED is a consortium of New Jersey labor and industrial groups concerned with responsible and balanced development of both our environment and economy for the ultimate welfare of the people of New Jersey. Membership exceeds 60 and includes such organizations as the New Jersey State Chamber of Commerce and the New Jersey State AFL–CIO.

Rather than take extreme positions on issues, wherein one element of our lives may be emphasized to the virtual exclusion of consideration of other issues, SEED favors a balancing of priorities within the broad context of life in New Jersey. SEED's major purpose is to foster the mature consideration of both environmental and economic concerns as they affect our total lives.

It is within this context that SEED has strongly supported the completion of the Tocks Island Lake project. We will not trouble you here with a detailed recital of why we have supported and continue to support the project. All that has been voluminously documented at other hearings in recent years. We wish only to present certain basic points to counter what we consider to be a very ill-advised and unwise move to deauthorize the project.

The first major point we wish to bring to your attention is the pervasive importance of water supply to New Jersey. Aside from needs for reliable water supply which are universal, New Jersey is one of the most heavily industrialized States in the Nation, and the adequacy of its water supply affects everything that we do economically.

One of the major reasons for the early industrial development of New Jersey was the abundance of its water supply. Today our water supply almost literally keeps our economy afloat. Should that water supply suddenly prove inadequate for whatever reason, the total community structure in New Jersey would be affected drastically. It is no wonder that responsible and aware men and women of this State are extremely concerned about our water resources.

The second major point we wish to make is that New Jersey's water supply problems are indeed critical at this time. A number of State studies confirm this. Two in particular, both issued in April 1975 and both unrelated to the Tocks controversy, indicate clearly that New Jersey not only needs to take action now to augment future water supplies but already has had and continues to have serious water supply problems.

One of those reports is "Water Supply Management in New Jersey" by the county and municipal government study commission and the Department of Environmental Protection. It is also known as the Musto report, after State Senator William V. Musto, commission chairman. The other report we refer to is the "Governor's Commission to Evaluate the Capital Needs of New Jersey," also known as the MacNaughton report, after D. S. MacNaughton, chairman of the commission composed of 18 distinguished New Jersey leaders.

The Musto report indicates that the 1965 drought was a near disaster that was largely kept from the public and that our water supply system was in better shape going into that drought than it is today.

The MacNaughton report points out that water consumption needs for the area in 1990 will be 1.67 billion gallons daily, nearly 1 billion gallons more per day than in 1960.

It is clear that New Jersey needs to increase its water resources. The water supply problem, far from going away, gets more serious every day. The latest relevant study, the Northeastern United States Water Supply Study, issued last November by the Army Corps of Engineers, indicates that there is an immediate near-term need for increased water supply capability in the northern New Jersey-New York City-western Connecticut region.

The third major point we wish to emphasize is that, granting New Jersey's need for additional water supply capacity, the development of the Tocks Island Lake project is the single most effective major step that can be taken. We are not even considering here the positive contributions of other aspects of this comprehensively designed, multipurpose project such as electric power generation, flood control, and recreation. We know of no serious factual challenge to this point so we will not belabor it.

The fourth major point we wish to make is that there are at present no feasible alternatives to the Tocks Island Lake project. We are not talking about hypothetical, speculative, "maybe" alternatives, the kind which are dreamed up by those who oppose the project. We are talking about specific, soundly engineered, feasible alternatives that will accomplish what Tocks will do. We repeat, there are none at this time.

This includes the concept of utilizing the surface water resources of the Wharton tract. It also includes the concept of aquifers in southern New Jersey. Both of these concepts are both economically and practically unfeasible.

In fact, New Jersey's Department of Environmental Protection has just embarked on a 3-year effort to develop a water supply master plan that will explore alternatives to the Tocks Island Lake project.

It is against this background that opponents of the Tocks Island Lake project want to deauthorize it. Their rationale is that such a step is necessary to allow development of alternative ways of meeting the flood control, water supply, power, and recreation needs of the Delaware River Basin. The inference seems to be that we must burn our bridges behind us before we can be properly inspired to find alternative routes to the same end.

We strongly object to this rationale as nonsensical and irresponsible. It is taking a totally unnecessary gamble, with the future of the people of New Jersey as stakes.

76-797 O - 76 - 19

We must point out here that the chief executives of both New Jersey and Pennsylvania, the two primary States in regard to the Tocks Island Lake project, emphatically do not want the project deauthorized. We urge you to give your gravest consideration to the position of these two Governors whose charge it is to act for the welfare of their States in the broadest sense.

New Jersey needs, more so than any in the Union, the peripheral projects that Tocks will give. We have stood in line a long time for these benefits. And if we don't achieve these benefits, there are other areas of the country ready and eager to take advantage of the moneys dedicated.

We respectfully disagree with the position of New Jersey's Governor Byrne that action on the project should be deferred at this time. You will remember that Governor Byrne's position prevailed a year ago when the Delaware River Basin Commission met to decide the immediate fate of the project. We wish that our present Governor could have followed the lead of his four predecessors who supported the Tocks Island Lake project, but we applaud his cautious wisdom to wanting to keep this federally funded project on the authorized list. Indeed, given the fact that there are no present alternatives to Tocks, we cannot imagine how the Governor could do anything but favor continued authorization at this time.

This is a financial aspect here that is significant as well. Upward of $100 million in Federal taxpayers' dollars already has been expended to develop the Tocks Island Lake project. Deauthorization would, in effect, throw a large portion of that amount down the drain. These are difficult financial times for both our State and Nation, and it is not easy to justify such waste. New Jersey's financial plight was dramatized recently when it became the first State in the Nation to shut down its schools because of lack of court-ordered funding. It is difficult at this point to see how New Jersey will be able to go it alone financially to improve its water resources.

At any rate, neither our Governor nor Commissioner Bardin of our Department of Environmental Protection appear to think that continued authorization will adversely affect the exploration of alternatives which now is underway in New Jersey. Both the Governor and the Commissioner wisely refuse to play fast and loose with the fate of New Jersey by adopting the bridge-burning rationale of opponents of the Tocks Island Lake project.

Opponents of Tocks, in their consuming desire to deauthorize the project, seem to be motivated more by an ideological power drive than by any concern with the total welfare of New Jersey and the surrounding region. We urge that you not fall victim to the spurious arguments they advance for wiping out this only present solution to pressing water supply needs of this State and region.

Thank you.

STATEMENT OF LEWIS APPLEGATE, SECRETARY, SEED

Mr. APPLEGATE. Mr. Chairman, I am secretary of SEED. My name is Lewis Applegate. I am also the director of governmental relations for the New Jersey State Chamber of Commerce and executive secretary of the New Jersey Chemical Council. Both of those organizations strongly endorse the SEED position.

I happen to have been a member of Governor Byrne's Tocks Island Study Commission. That commission split 5-to-5 in its recommendation to the Governor. Of course, he went ahead and vetoed the project. I was one of the five that recommended that he not veto it.

He now opposes deauthorization, and we are happy to join him in that stand now.

Our State chamber and our Chemical Council represent organizations that employ about 2 million people in the State of New Jersey, and we are constantly trying to make up in new industry in New Jersey for the 150,000 manufacturing jobs we have lost in the last 5 years. We cannot do this, we cannot attract industry without an adequate water supply and a safe water supply.

And even though we may not need that water until 20 years from now, we feel it should be available to us, and we do join in the SEED position in urging defeat of S. 3106.

Senator GRAVEL. Thank you very much.

Our next witness is James D. O'Brien.

STATEMENT OF JAMES D. O'BRIEN, ATTORNEY, WASHINGTON, D.C.

Mr. O'BRIEN. Mr. Chairman, my name is James O'Brien. I am a member of the law firm of Lund, Levin and O'Brien. We appreciate the chance to appear in support of the Tocks Island project.

We have a prepared statement which I would appreciate your putting into the record. I will do my best to summarize it.

We are familiar with this project, because, as counsel for the New Jersey electric companies that are authorized to develop its hydroelectric feature, we have gone into it in great detail.

Now, that authorization is under a statute reported by this committee after hearings approved by Congress in 1970. We don't have anything to add to it today, although I wish there were time, other than to leave you with the assurance that all of the refinement work we have done on it since then proves the wisdom of your 1970 act authorizing this very beneficial hydroelectric feature.

But as to Tocks Island proper, we have all gone into the limited water resources of the Delaware Basin, the mounting, rising human needs for them, and the diverse alternative ways of conceivably meeting these now and in the years ahead.

We have looked at them all. We have studied them very intensely. We have had the benefit of the most critical consulting minds in and outside of Government on this particular subject. And it is our considered conclusion that of them all, this project is unquestionably the environmentally best, certainly the economically best, of all possible ways of meeting them.

And beyond that, in having seen the great water resource developments undertaken across this country, we know that the advantages of this Tocks Island project do indeed go beyond that. We see this as providing a lasting environmental asset for this region, one that is going to make it a better place for most of its working people to live there now and in the long years to go.

Now, naturally we have a standard by which we reached this judgment. It is the same standard your committee used in 1962 when it authorized it, again in 1965 when it reviewed the authorization of its surrounding Delaware Water Gap Recreational Area. It is the

same standard that you used again in 1970 when you authorized my client companies to undertake the hydroelectric power feature as part of this Tocks Island project. That standard is the same one that you used on this public works project, or any other internal improvement project that the Congress handles; that is, the general welfare, or as some people refer to it, the improvement in the quality of the human environment.

Now, when you apply this standard to the two options you have got—project completion, or project destruction—there is no question in my mind of where the general welfare lies in this controversy.

When you look at what you have got today—a project that is authorized, it is already heavily funded, that is ready to provide a now-attainable benefit in improvement to the general welfare of these people, and in the critical ways on which the industry and the employment levels of this area depend on water resources—to me, there is no question but that this is a decided improvement of the general welfare.

When you look at the alternative you have got, project destruction, I honestly cannot perceive how, by the wildest stretch of my imagination, that that in fact is going to provide an improvement of the general welfare of the people of that area. It certainly is not going to do it to a greater degree than the completion of this project. It certainly is not going to do it to the same degree as the completion of this project.

And if you did so, all that you would be getting here is the addition of 15 square miles to what already is a 90-square-mile natural recreation area surrounding Tocks Island project.

I submit, frankly and honestly, that is not an addition that is needed by the people of this area, where we do have the 90 square miles going in there today. But what you then have is all of the huge additional cost—first of all, the additional cost of completing what is nothing more than an amenity, a recreation area, desirable as it might be. You have a huge cost. Then on top of it, you have the further huge additional cost of going elsewhere throughout the Delaware River Basin and trying to provide federally or State-financed moneys whereby you provide these same or the equivalent water resources that this project will provide.

As I set out in my statement here, we can tell you, we assure you categorically, that none of those alternatives singly or together—and I am addressing now the so-called Madigan-Praeger impartial analysis alternatives—that none of them alone or together can provide the water resource benefits and the needs that this congressionally authorized project does. And, very specifically, the reason is that all of them assume that under the Supreme Court decree of 1954—this is where this case of controversy begins—that all of those alternatives assume the inflow down the Delaware River, measured at Montague, which is just below the State of New York's border, of 1,750 cubic feet a second.

Now, that is a requirement on the State of New York, on its board of water supply that has built three—I repeat, three—huge reservoirs in the Upper Delaware River Basin, which together have more than double the acre-feet of storage. That 865,000 acre-feet of storage is more than double the amount of this one single authorized installation or impoundment at Tocks Island, which is 425,000 acre-feet.

Now, we don't criticize or complain about those reservoirs in the Upper Delaware River Basin. We don't criticize those reservoirs. The fact is they are needed to divert water now under the Supreme Court decree.

I have the river masters' report from the Geological Survey, which tabulates these inflows and outflows from those reservoirs. They now take approximately 800 million gallons a day of the headwaters of the Delaware mainstream, and they are authorized to do this on the condition that they can maintain a flow, this 1,750 cubic feet a second, down the Delaware to the lower basin States that are singularly dependent on it.

Well, a lot of this, the 1954 decree, frankly, is obsolete. And it is obsolete, because since 1954 we have had an absolutely disastrous drought, and we have Presidential drought declarations to prove it in the year 1965, culminating a 4- to 6-year cycle of drought years. And they demonstrate that if New York takes the 800 million gallons a day, it cannot possibly maintain the flow, the downstream flow measured at Montague, for the benefit of the downstream States. And if it does indeed maintain that level, correspondingly, it cannot divert the 800 million gallons a day on which southeastern New York, this huge city of 7 to 8 million people, is dependent.

We have got these numbers tabulated in our testimony, and I won't take time to go into them.

I have listened to lots of denunciations against this project. I wish there was time to seriate them one by one, and demonstrate that they in fact are not the case.

You are going to have environmental effects when you build this project. Indeed, we urge you to build it because it will have environmental effects. And those are the advantages we know are needed to sustain life, economy, employment levels, to improve the quality of the human environment in the Delaware River Basin.

Last, I wish I had time to read, to invoke, that this is not the special pleading of the law firm that I represent. I am quoting the then Governor Richard Hughes, now chief justice of the New Jersey Supreme Court, in his statement submitted to Congress in 1973. I submit that this is meaningful because this is the Governor who was chairman of the four-State Delaware River Basin Commission who carried it through all of those harrowing drought crises of the sixties.

I will let it speak for itself. It does so, more eloquently than I, about the need for this one single mainstem project, on a river system of some 300 miles, situated between the point of the diversion of its headwaters over to New York and the downstream flow of the river to the States that are dependent on it there.

Mr. Hughes' convictions are mine also, and I thank you for the chance to present them.

Senator GRAVEL. Thank you very much, Mr. O'Brien.

[Mr. O'Brien's written statement follows:]

Statement Before

SUBCOMMITTEE ON WATER RESOURCES,
SENATE COMMITTEE ON PUBLIC WORKS

In Support Of

TOCKS ISLAND LAKE PROJECT

July 26, 1976

Mr. Chairman, Members of the Subcommittee:

My name is James O'Brien, of the law firm of Lund Levin & O'Brien in Washington, D.C. We appreciate the opportunity to appear, in support of this authorized undertaking.

We learned a good deal about Tocks Island, in the course of our work as counsel for the electric companies authorized to develop its hydroelectric power potential.

(That authorization is by Public Law, reported by this Committee, and approved by Congress in 1970. We have nothing to add on it here -- other than to assure you that all of our refinement work on it since then proves the wisdom of your 1970 Act, authorizing this most beneficial hydroelectric feature.)

As for Tocks Island, we learned a good deal about the limited water resources of the Delaware, and the many rising

needs for them, and the possible alternative project ways of meeting these known needs. We have had the benefit of the most critical consulting minds on these matters.

It is our conclusion, carefully considered, that this multipurpose impoundment, already authorized, already heavily funded, is the environmentally best way of meeting these rising water resource needs that it is Government's responsibility to provide for.

Beyond that -- and this impoundment's advantages do go beyond that -- it provides a lasting environmental asset for this region, one that will make it a really better place for most of its people to live, now and in the long years to come.

I say this with full knowledge of this Project's environmental objections (having studied all of them), as well as all of its environmental advantages.

* * * * *

STANDARD. Before summarizing the reasons for this conclusion, let me state the ultimate standard for reaching it, and that Congress used for authorizing this Project, and for funding it down to the present. It is the standard for

judging every authorized public works, internal improvement project-- i.e., in terms of its effect on "the general welfare", or "quality of the human environment" (of people).

PROJECT COMPLETION. By this standard, the completion of this Project is preeminently desirable, and necessary, because demonstrably it promotes the general welfare. It does so specifically in all of those critical ways without which the economy of much of this area cannot be sustained -- such as by providing its needed, assured additional domestic, municipal, agricultural, and industrial water supply; and electric energy supply; and flood protection; and public lake recreation (on what the National Park Service assure us will be "a beautiful lake"); and the steady flow release required to improve the water level and water quality of the Delaware's remaining, 175 free-flowing river miles, and its many large metropolitan areas and employment industries dependent on it downstream to Delaware Bay.

PROJECT DESTRUCTION. By this ultimate standard, I am unable to perceive how the destruction of Tocks Island promotes this area's general welfare. It certainly will not do so to the same degree, and certainly not to a greater

degree, as its completion. What this destruction accomplishes, and all that it accomplishes, according to this bill, 1/ is to add Tocks Island Lake's 15 square miles as an "amenity" to its already 90 square miles of surrounding land recreation area. This is an addition that is frankly not needed, for the sake of destroying "a beautiful [multipurpose] lake" that clearly is needed. Then on top of the huge cost of doing that, which does nothing to meet this area's all-pervasive water resource problem, then you still have the further huge additional cost of trying to meet this area's dominant water problem, by financing a series of hypothetical alternatives that in fact would be unable to do so, as I indicate later. So to me the destruction of this Project: first, prevents a now needed, now obtainable improvement of the general welfare; second, does not itself serve the general welfare; and third, by itself is decidedly contrary to the general welfare.

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1/ This assumes (questionably,) that if this conservation lake were not built, that all 15 square miles of its riparian land would not be returned to its prior owners, from whom it was taken for this publicly needed Lake, only.

* * * * *

The central resource problem of the Delaware Basin is the problem of water supply. This is the most densely populated, heavily industrialized river basin in the country, involving parts of four States, each of which is heavily dependent on the Delaware.

And because they are, it has been made clear by one of this country's great Supreme Court jurists, Oliver Wendell Holmes, in the Delaware River litigation of the 1930s, that this "river is more than an amenity": that "it is a necessity of life that must be rationed" among these States.

Which is what Justice Holmes did there, authorizing New York to impound the Delaware's headwaters, to maintain two large reservoirs in the New York part of the Delaware River Basin. Which number has now been increased to three, as a result of the further Delaware River Supreme Court litigation of just twenty years ago. Together these three New York upper Basin reservoirs impound some 865,000 acre-feet of the Delaware mainstem headwaters -- more than double the amount (425,000 ac. ft.) to be impounded by this single one authorized at Tocks Island, just below New York's border, on the Delware mainstem between Pennsylvania and New Jersey.

Now the purpose of these three large New York reservoirs is twofold, one of which works well, one of which does not work well. The first is to divert the Delaware's water eastward to southern New York, or New York City, over in the Hudson River Basin. This they do most effectively, to the authorized point of providing it with 800 million gallons a day, or some 50 percent of that immense City's water supply. (And I am not here suggesting that there is anything wrong with this trans-basin diversion -- provided the required in-basin compensation for it can be obtained.)

The second purpose of these three New York reservoirs, to compensate for the first, is to release enough water down the Delaware to prevent its minimum flow to the lower Basin States, that are also dependent on it, ever from going below 1,750 cubic feet a second, measured at the Delaware flow gauge at Montague, just below the New York border.

And this purpose these three reservoirs do not perform well, not because there is anything wrong with them -- but because the assumption in the Supreme Court's 1954 Decree, that they can simultaneously maintain this minimum flow, also,

is just plain obsolete. It is obsolete because it is based on a recurrence of the milder drought conditions of the nineteen thirties, which, though bad, were not nearly as bad as the five-year drought of the recent 1960s, which is the hydrology test period now used in determining the Delaware mainstem's minimum firm yields and predictable deficiencies.

This later drought shows that if, during its recurrence, New York releases enough water from its Reservoirs to the mainstem, enough to maintain its required minimum level at Montague, those Reservoirs cannot supply New York City's needs. And if they are used to supply New York City's needs, New York cannot maintain the minimum mainstem flow at Montague.

Specifically, during the recent drought period of the 'sixties, when New York reduced its Reservoir releases to the mainstem to the level of those Reservoirs' inflows, the mainstem's level at Montague fell as low as 522 cfs. Even the compromise finally effected by the DRBC agency, 1,200 cfs, was still far below the minimum level required.

And New York's reason for sending its Delaware Reservoir water over to the City instead of down the Delaware is hard to quarrel with. Yet the result of New York's trying to meet the City's needs this way (and despite its reduced releases to the mainstem, New York was still unable to meet its own needs), the result of New York's trying to do so is

to greatly worsen the shortage in the downstream States, including the near disastrous tidal submergence of metropolitan Philadelphia's fresh water intakes.

So if all this were to reoccur, and to be reenacted again today -- and as history is our guide to reality, we know it will be -- the result of New York's withdrawal of its full 800 million gallons a day from its three upper Basin Reservoirs, will produce an actual mainstem inflow no greater than 600 cfs at Montague. 1/

Now it is this known, predictable deficiency of firm water supply and mainstem flow augmentation that the Tocks Island Project will meet -- and which none of its theoretical alternatives can meet, singly or together -- that necessitates this authorized undertaking.

And the reason that none of those speculative alternatives can is that each of them legalistically assumes a level of inflow in the mainstem of 1,750 cfs measured at Montague,

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1/ Or, to put it alternatively, if New York were to maintain the minimum flow of 1,750 cfs at Montague, the result would be a withdrawal from its three upper Basin Reservoirs of not more than 563 mgd to New York City, far short of its authorized withdrawal of 800 mgd. (All these numbers reflect completion of New York's Cannonsville Reservoir.)

which experience shows simply is not there during the critical drought period of this River, on which so many people and so much of this area's economy depends.

In summary, just about ten years ago, when the water resource requirements of this area were far less than they are today, and far less than they will be in coming years, this entire Delaware system was reduced to a series of drought flows, of such duration and severity, as to compel a Presidential Drought Disaster Declaration for the Delaware, in August 1965. And the environmental effects of that disaster, so adverse at the time, will be much worse in the more populous present, and future, on recurrence of these low flows.

And if I may invoke someone other than myself, to corroborate the importance and opportunity of this needed conservation undertaking, I will close with the words of the former Governor, now Chief Justice of the New Jersey Supreme Court, the Honorable Richard Hughes, which appear in the Congressional Record of July 31, 1973:

"As Governor of New Jersey and Chairman of the Basin States' emergency efforts throughout that [recent five year Delaware River Drought] crisis (during which, despite conservation, we were actually reduced to proposed tank car water delivery for New Jersey), I assure you that no computer is required to prove the need for Tocks Island -- to meet the now far greater water needs of this and other Delaware Basin States.

"That harrowing crisis established beyond question that Tocks Island, up on the tri-State boundary, is required to supply the conservation storage needed to permit greater diversion of New York's authorized allocation from the Basin above, as well as augmented flows needed for increased downstream New Jersey-Pennsylvania needs and to hold the Delaware's salt line below Philadelphia's intakes."

Since then, all of the studies "under the Northeast Water Supply Act of 1965, which Congress enacted to prevent repetition of that drought disaster, also affirm Tocks Island's necessity -- as well as its environmental superiority over any of its alternatives -- to meet the known human water supply, flood protection, energy supply, recreation, and other requirements of the people dependent on the Delaware."

Mr. Chairman, and Members, these are my studied convictions, also. Thank you for the opportunity to express them.

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Senator GRAVEL. Our next witness is Dr. Buzzi.

STATEMENT OF DR. JOHN L. BUZZI, CHAIRMAN, ENVIRONMENTAL COMMITTEE, NEW JERSEY ALLIANCE FOR ACTION, EDISON, N.J.

Dr. BUZZI. Gentlemen, I am Dr. John L. Buzzi, an environmental engineer, representing the New Jersey Alliance for Action. The alliance is a coalition of management, labor, and the professions, whose goal is to immediately activate vital public works programs as well as properly financed projects of capital investment in New Jersey's future.

In reviewing the Tocks Island Lake project, we remain aware of the concern of some that the construction of this project might produce some adverse environmental effects.

We believe that this is a valid concern and deserves closest attention. On the other hand, our review of the detailed reports prepared for the Delaware River Basin Commission have convinced us that compelling positive reasons for the project far outweigh any adverse effects that will occur, if the project is carried out carefully and with due consideration and sensitivity to these areas.

Moreover, the abandonment of the present concept of this project, which has been pursued and reviewed now for nearly two decades, would represent a dangerous step backward on the critical issues of flood control, water supply, and recreation for the Delaware River Basin.

Deauthorization of this project at this late date raises the very real possibility that nothing meaningful with regard to these major problems will happen for decades. We believe that this threat of inaction is much greater than the concerns expressed by those who have opposed the project, and so we plead with you today to reject deauthorization of this project, for, really, deauthorization means abandonment of this vital conservation project.

Abandonment now is really saying to the people of New Jersey, the most urban and densely populated State in the Union, that there cannot be a better day, that the best is behind us, that there is no real alternative to heavy flooding, inadequate recreational facilities, and insufficient water supply.

When Gov. Brendon T. Byrne reviewed the status of the project in 1975, he stated that the project should not be deauthorized until all alternatives were studied, developed, and presented to the public. We can say without hesitation, gentlemen, that this has not been done as yet. Alternatives for solution to our recreational, flooding, and water supply problems have not been fully considered and certainly the public has not had input into them as yet.

Some seem to forget the terrible damage, both personal and property, that New Jersey and its citizens suffered from severe flooding in the past. They seem to forget, or were too young to care, about the severe and long drought of the early 1960's when very strict measures had to be enforced to provide enough water for all. They also don't seem to understand that other people, the people of our cities, who cannot afford to travel to Yosemite or Yellowstone, would like to have good, accessible recreational facilities within driving distance.

Why should those in the cities be told, in effect, "For recreation, you in the cities, turn on your hydrants in the evening and cool off?" Is that really recreation? Is that the best we can provide? Is the best really behind us?

Rest assured, gentlemen, the next drought in New Jersey, with more people than in the early 1960's, with more industry, with more potential for hardships and more economic dislocation, will never be forgotten. If one rates the States on the basis of runoff per capita, our State, New Jersey, is the most watershort in the United States.

New Jersey is about to commence a $1 million water supply master plan. This master plan encompasses not brightly colored schematics, not pictographic maps, but will in fact for the very first time provide the detailed mechanics of how a master water supply plan can work for the State of New Jersey.

It seems absurd that an alternative, such as provided by the Tocks Island conservation project, should be disposed of before the master plan for water supply is completed, before we the citizens know the rankings of all the water supply alternatives, before the public has an input into discussing the engineering, economics, social and environmental tradeoffs that could best be made. Deauthorization now would remove water supply alternatives before they are considered full in the detailed master plan.

In addition, New Jersey officials have recently complained that its citizens send too many dollars to Washington and get too few back. Deauthorization will mean that these capital improvements, if they are ever made, will have to be accomplished with New Jersey State and local dollars. Other States in the southern and western portions of the country will take advantage of deauthorization to get their projects such as their Tocks Island approved for their citizens with the use of New Jersey Federal tax dollars.

So, gentlemen, we ask you not to deauthorize, for New Jersey not only needs the kind of water supply, flood control and recreational improvements that Tocks Island conservation project will provide, not only needs the Federal dollars, but also needs the thousands of jobs that it will eventually bring to its citizens—construction jobs and permanent onsite jobs alike.

In summary, a vote to deauthorize Tocks Island now is a vote, indeed, against our cities.

Surely our urban areas deserve much more than an "open fire hydrant" recreation program and a "brick in the toilet" water supply program.

Let us not dismantle a viable flood control, water supply, and recreation plan before we can get possible alternative plans on line.

We must advance our review of our water supply alternatives considering time-tested methods of environmental tradeoffs rather than retreating under an elitist ultimatum for deauthorization.

Gentlemen, we ask you to consider New Jersey and its citizens and vote for rejection of the deauthorization of Tocks Island conservation project. For, as we said at the start, deauthorization really means abandonment. The Alliance for Action feels strongly that New Jersey citizens do not wish to be abandoned, that they still believe that the best is still ahead. They are depending on you. Don't let them down.

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Senator GRAVEL. Thank you very much.

Is Mr. Thomas Kean here or Mr. Thomas Cooke?

Thank you very much. The hearing is adjourned.

[Whereupon, at 1 p.m., the subcommittee adjourned, to reconvene subject to the call of the Chair.]

APPENDIX A

Statements and Communications in Favor of Deauthorization

COMMONWEALTH OF PENNSYLVANIA
PENNSYLVANIA FISH COMMISSION
HARRISBURG 17120

EXECUTIVE DIRECTOR

July 15, 1976

The Honorable Mike Gravel
United States Senate
3317 Dirksen Senate Office Building
Washington, D. C. 20510

Dear Senator Gravel:

It is our understanding that you will be chairing a meeting to discuss Senate 3106 on deauthorization of Tocks Island Dam.

We will appreciate your entering the attached testimony into the record, as we will have no one present to give this testimony.

Sincerely,

Ralph W. Abele
Executive Director

A/t
attach.



Statement of Ralph W. Abele
Executive Director
Pennsylvania Fish Commission

to the
Senate Committee on Public Works
Washington, D. C.
July 23, 1976

S3106 - Deauthorization of Tocks Island

The Pennsylvania Fish Commission fought actively against construction of a dam on the Delaware River at Tocks Island for five years prior to disapproval of appropriation by the Governors of the four Delaware River Basin Commission states in 1975.

The Fish Commission's strong stand was initially taken upon learning that the reservoir's utilization would preclude its optimum recreational use, due to fluctuation in level by as much as 57 feet annually. This stand was taken not only in view of our public responsibility for the fishery resource involved, but in behalf of the broad segment of outdoor recreationists who are numbered among the 30 million people who live within 2½ hours of Tocks Island and the upper Delaware River.

We are not blind to the benefits of this project, but concur with the findings of the Comprehensive Study of the Tocks Island Lake Project, and Alternatives that alternative solutions are preferable. We are concerned that the benefits have been overstated and the costs underestimated.

Specifically, 40% of the benefits are projected to be recreational ones. We are convinced that the total recreational impact would be negative in the long run. On the other hand, costs appear to exclude full pricing of the opportunities foregone.

Our objections to this project are based upon the following:

1. Severe reduction or loss of one of the most important American shad migrations and fisheries in the United States. When the pollution problem in the tidal area of the Delaware River is corrected, it may conceivably become the best shad fishery in the nation. The Draft Project Review Study states, "If a lower temperature limit is the principal motivating force behind shad movement to the sea, a portion of the downstream migration will probably survive."

2. Formation of a fluctuating, possibly eutrophic pool of far less fishery value than the 37 miles of existing river that would be lost.

3. Degradation of the natural fishery below the dam.

4. The likelihood of continuing and significant loss of fish at the pumped storage intakes and from the reservoir.

5. The loss of high quality water to the lower river as a

result of expanded use of the reservoir for water supply. That loss which is not consumptive of the lower river would be returned in the form of treated sewage. The effect upon water quality and salinity of the lower river and Delaware Bay could only be unfavorable on a year-round basis, although flow augmentation could benefit these conditions during periods of low flow (shad do not migrate during low flow periods, and would probably not stand to benefit from flow augmentation).

In 1975, a study was performed by a member of my staff, which placed the recreational lost value to the upper Delaware, resulting from poor management of the three water supply reservoirs which serve New York City, at $22-25 million annually. We are assisting New York State in its efforts to restore more suitable low flows and values to river recreationists.

According to a recent statewide survey, Pennsylvania fishermen prefer fishing flowing water to impoundments by a 5 to 2 ratio. That portion of eastern Pennsylvania in the vicinity and north of Tocks Island contains the greatest concentration of natural lakes in the state, a legacy of the latest ice age, plus huge Wallenpaupack Reservoir. These lakes are generally greatly underfished. Our demand is for flowing water, not another impoundment where nature has left hundreds of lakes.

The Delaware is one of the last of the major free-flowing (unimpeded by dams or waterfalls) major rivers in the United States still open to anadromous fisheries migration. In our rush to develop our nation, we have blocked the flow of most of our rivers and created relatively short productive-life reservoirs for the creation of power, flood control, and water supply. The hydro power potential of our rivers is limited, and their sacrifice has provided only a small fraction of the insatiable growing needs of the Northeast. Flood losses have increased in nearly every river system on which the Corps of Engineers has constructed extensive impoundments, proving that reservoirs without flood plain legislation are counterproductive. Inevitably, as water supply in excess of needs is created, population shifts and per capital consumption increases make the new supply inadequate. Water from the Delaware Basin is already serving to the needs of 15 million people, most of whom reside outside the watershed. It is not our wish, as expressed by one DRBC staff member, to make the Delaware the "Ruhr of America."

There are a number of alternatives to the Tocks Island Project which have been suggested in the Comprehensive Study, and which would have less devastating environmental impact. We favor creation of a river based National Recreation Area on the land which has been acquired. By doing so, benefits comparable if not greater than those expected to account for 40% of total project benefits can be secured at a small fraction

of the reservoir construction cost. Can construction of Tocks Island be justified in a cost/benefit basis for 60% of the benefits?

Fishing or boating on a reservoir can be an enjoyable experience anywhere, but it does not have the unique appeal experienced when it is done on a river such as the Delaware. Few who have recreated on its upper reaches fail to be enthralled with its beauty, majesty, serenity and unique diversity. River boating is one of the nation's most rapidly growing recreations. Based on an aerial survey in 1974, there were 4,000 canoes on the upper Delaware on a typical Saturday. I seriously doubt that this many would care to utilize an impoundment which offers none of the thrills involved.

Let's save this river, one of our last to be found in its natural state, for future generations. New York City and Philadelphia may have to develop other water resources. Reduction of water now being used by our large eastern cities to rates considered suitable in many other parts of the nation would provide the time required for needed alternative development of sources.

Man can easily build a reservoir almost anywhere the topography permits, but he has never succeeded in building a river, certainly not one as magnificient as the Delaware, which makes the 30 million who can easily reach it richer so long as it continues to flow in its natural state.

THE APPALACHIAN TRAIL CONFERENCE
(Since 1925)

P.O. BOX 236, HARPERS FERRY, W. VA. 25425

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EXECUTIVE DIRECTOR
(304) 535-6331

July 30, 1976

Senator Mike Gravel
Water Resources Public Works Committee
U.S. Senate
4204 Dirksen Bldg.
Washington, D.C. 20570

Dear Senator Gravel:

In response to testimony desired regarding the Tocks Island Dam, the Appalachian Trail Conference supports the deauthorization of SB 3106. We consider the preservation of this natural area for recreational purposes a very necessary step in the progress of a larger scale recreational plan. I would also like to point out that I speak for the Conference Board of Managers and the individual members in opposition to the relocation of highway #284. We recommend that it be designated a scenic roadway and especially so since I-84 can sufficiently handle the traffic.

We appreciate the opportunity to submit this testimony; and appeal, on behalf of the people I represent, that justification will be shown to allow the preservation of this natural environment for the use of mankind to relax and enjoy the good given us.

The Appalachian Trail Conference is a non-profit conservation organization consisting of 10,000 individual members from the U.S. as well as foreign countries. There are 63 Appalachian Trail Clubs whose members maintain the Trail having a combined enrollment of some 90,000 people all of whom are actively involved and concerned in preserving our natural heritage. So you can see this letter represents a total of 100,000 people.

Sincerely yours,

Paul C. Pritchard/pc

Paul C. Pritchard
Executive Director

PCP/ph



ATLANTIC
COUNTY
CITIZENS
COUNCIL ON
ENVIRONMENT

Harold P. Abrams, President
9100 Amherst Avenue
Margate, New Jersey 08402
Telephone (609) 822-3239

21 May 1976

Statement of Harold P. Abrams, President of the
Atlantic County Citizens Council on Environment (ACCCE)

Reference:

Tocks Deauthorization Bill S-3106

Tocks Deauthorization Bill HR-12462

It is respectfully requested that the testimony submitted herewith concerning the above-cited bills be entered into the record for consideration by the Committee on Public Works, U.S. Senate and U.S. House of Representatives.

ATLANTIC
COUNTY
CITIZENS
COUNCIL ON
ENVIRONMENT

Harold P. Abrams, President
9100 Amherst Avenue
Margate, New Jersey 08402
Telephone (609) 822-3239

21 May 1976

Testimony on the Proposed Tocks Island Dam Project

As a resident of New Jersey and president of the Atlantic County Citizens Council on Environment (ACCCE), I have long been aware of the scenic beauty of the Tocks Island area. This section of land along the NJ-PA border, above the Delaware Water Gap, unlike the predominantly industrialized areas of northern New Jersey, remains relatively free of the ravages of pollution. Because of the historic and natural scenic value of the region, the Tocks Island dam must not be allowed to be constructed.

I am aware that Congress mandated a $1.5 million re-evaluation of the project and that, on the basis of that fact-finding survey, the Army Corps of Engineers, Council on Environmental Quality, and the Environmental Protection Agency called for the deauthorization of the project. Likewise, the Board of Directors of the ACCCE calls for deauthorization of the project as desirable and in the best interest of the general public.

The ACCCE has carefully studied this matter and has identified feasible and economic alternatives to the proposed dam project. We believe that the dam project is fiscally irresponsible as well as environmentally dangerous and unnecessary. Consideration of the cost-benefit ratio of the project makes it totally unjustified. There are adequate alternatives for flood control, water supply, power and recreation in the Delaware River basin at far less cost and without the destruction of one of the last free-flowing rivers in the East.

Harold P. Abrams

Harold P. Abrams

The BEAVER DEFENDERS
UNEXPECTED WILDLIFE REFUGE, INC.
NEWFIELD, N. J. 08344 / 609-697-3541

July 19, 1976

Senator Mike Gravel
Washington
D.C.

Dear Senator Gravel:

We join you in working to stop further destruction of the Delaware by a huge man-made dam.

The flood plain belongs to the beavers, otters and other water-dwellers, and if we let them take care of it we can come into their haunts quietly and with respect, and appreciate what can never be enjoyed in the raucous carnival-like atmosphere of man-made recreational sites. We have enough of the latter--let's not trade off any more scenic beauties for more.

We support S-3106, The Tocks Island Dauthorization Bill, and fervently hope that the bill will go through, so that the Minisink Valley may continue in its rare natural beauty, free from further tampering with by man.

Thank you for your work in this regard, and good luck to you.

Sincerely,

Cavit and Hope Buyukmihci

In our refuge we're saving a mile of New Jersey stream from exploitation, and our beavers are doing a good job of managing the water supply.

66 Lakewood Avenue
Ho-Ho-Kus New Jersey
07423

STATEMENT BY VIVIEN LI, CHAIRPERSON, ECOLOGY COMMUNICATIONS COMMITTEE OF BERGEN COUNTY, SUBMITTED TO THE COMMITTEE ON PUBLIC WORKS REGARDING TOCKS ISLAND DAM PROJECT, JULY 1976.

I welcome this opportunity to submit testimony to you.

The Ecology Communications Committee of Bergen County, a coalition of civic and environmental groups in northern New Jersey, has been actively involved in land use questions for the past year. In our opinion, the fate of the Tocks Island Dam is of paramount concern in a region plagued by serious shortages of recreational and employment opportunities.

After reviewing the proposed plans, however, I would strongly urge the passage of S 3106 and HR 12462, both geared towards de-authorization of the Tocks Island project. As you well know, following the $1.5 million re-evaluation study of the project, the Army Corps, Council on Environmental Quality, as well as the US Encironmental Protection Agency have all found de-authorization to be the best alternative at this time.

Although a prime justification of the project has been the recreational opportunities to be created, there has been much question as to whether such goals can actually be accomplished through the proposed plan. According to the National Park Service in 1971, recreation would probably be enhanced without the dam, since greater diversity would be achieved minus the dam.

According to the June 1976 Environmental assessment of the Delaware Water Gap, the recreational opportunities available in the region are already fairly extensive. Recreation geared towards the natural assets of the area have and can further be developed to meet addition demand.

Under the Tocks Island Dam proposal, usage of motorboats and other high energy-intensive vehicles would be permitted. Unfortunately, such usage will result in significant pollution to a pristine and attractive waterway as a result of spills, discharges, and other activities related to water usage. More importantly, however, the high probability of eutrophication due to the rapid growth of algae will severly threaten the recreational potential of the area. As a free-flowing waterway, the chances for such degredation are minimized.

In an effort to enhance further recreational usage, action should be taken to include the Delaware River within the National Wild and Scenic Rivers System. This would help maintain the river in a free-flowing condition for the benefit and enjoyment of the region's people.

On another note, it would now appear that the employment potential of construction of the dam have been overestimated, and that, in fact, numerous other projects can generate an equal or greater number of jobs per capital outlay. In a paper entitled "Job Impacts of Alternatives to Corps of Engineers' Project." (Engineering Issues, October, 1973), two University of Illnois professors have found five alternatives which tend to generate a greater percentage of jobs than the Tocks Island project. I recommend the article to you.

In conclusion, I add my voice to those of other governmental and citizen organization supporting S 3106 and HR 12462, bills to de-authorize the Tocks Island project. I ask support. Thank you.

STATEMENT BY VIVIEN LI, CHAIRPERSON, ECOLOGY COMMUNICATIONS COMMITTEE OF BERGEN COUNTY, SUBMITTED TO THE COMMITTEE ON PUBLIC WORKS REGARDING TOCKS ISLAND DAM PROJECT, JULY 1976

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Although a prime justification of the project has been the recreational opportunities to be created, there has been much question as to whether such goals can actually be accomplished through the proposed plan. According to the National Park Service in 1971, recreation would probably be enhanced without the dam, since greater diversity would be achieved minus the dam.

Moreover, the permitted usage of motorboats and other high energy-intensive vehicles will result in significant pollution to a pristine and attractive waterway through spills, discharges, and normal usage. More importantly, however, the high probability of eutrophication due to the rapid growth of algae will severely threaten the recreational potential of the area. As a free-flowing waterway, the chances for such degredation are minimized.

On another note, it would now appear that the employment potential of construction of the dam have been overestimated, and that, in fact, numerous other projects can generate an equal or greater number of jobs per capital outlay. In a paper entitled "Job Impacts of Alternatives to Corps of Engineers' Project " (Engineering Issues, October, 1973), two University of Illnois professors have found five alternatives which tend to generate a greater percentage of jobs than the Tocks Island project. I recommend the article to you.

In Conclusion, I add my voice to those of other governmental and citizen organizations supporting S 3106 and HR 12462, bills to deauthorize the Tocks Island project. I ask your support. Thank you.

66 Lakewood Avenue
Ho-Ho-Kus, New Jersey 07423

/ad

35 "L" Drive
Pennsville, N. J. 08070

July 31, 1976

Mike Gravel, Chairman
Subcommittee on Water Resources
Committee on Public Works
United States Senate
4204 Dirksen Building
Washington, D. C. 20510

S3106
WATER RESOURCES SUBCOMMITTEE
HEARINGS ON PROPOSED DEAUTHORI-
ZATION OF TOCKS ISLAND PROJECT

Dear Sir:

Because I was not permitted to testify in person when I attended the first day of hearings in Washington on July 23, I respectfully submit the following for inclusion.

I strongly urge the passage of S3106 to terminate the authorization of the Tocks Island Reservoir Project.

There comes a time when we must ask ourselves what "progress" really means. Only in the last few years has the public become increasingly aware of how rapidly and profoundly man's activities can affect the natural world.

The delay may well be a "blessing in disguise" because it has allowed time for those most directly affected to think about this project and the "real" effects that would result from the construction of this dam.

I find a parallel with the nuclear industry here - the further along the project progresses, the less attractive it proves to be. We can no longer continue down the path of destruction, but must instead preserve the important natural resources in our wonderful country.

I fail to see how this dam would enhance recreation in this area or provide the flood control as was thought to be one of the primary considerations when this dam project was begun.

At this time, I feel what most people thought to be the primary reason for this project may very well be the secondary reason. There seems to have been a "hidden need" for this dam even at its inception. The enormous need for water to operate projected nuclear plants was, in all probability, the PRIMARY need rather than the secondary need we hear about today. As far as I'm concerned, this is just another way for the unknowing American public to subsidize the "nuclear industry."

As far back as 1972 the Atomic Energy Commission (AEC) called for a delay in the ongoing licensing process of two giant 1000 megawatt Philadelphia Electric nukes at Limerick, Pennsylvania, noting that the utility was PRESUMING THE construction of Tocks to provide cooling water for the plants.

I for one do not wish my tax dollars to subsidize (either directly or indirectly) the nuclear industry. Nuclear plants create long-lived radioactive waste and should be considered undesirable to anyone who cares about our environment. Every day there is growing evidence of increased fetal and infant mortality and an increase in childhood leukemia and adult cancer.

The atomic industry operates on the assumption that whatever health affects may be, the benefits of nuclear electric power outweigh the disadvantages. This is immoral because there are many ways of generating electric power which pose no such risk of death and genetic harm to the population at large.

Besides, during the energy crisis, citizens demonstrated their desire for conservation by using less energy. Their unfair reward for using less energy was increased rates when industry began to feel the pinch.

If we are to promote conservation and concern for our environment there should be less propaganda on the part of government and industry on projected energy needs that are proving to be wrong. There should be some way to reward citizens for their concern and willingness to conserve.

We must stop trying to justify projects by saying we already have so much money invested we must continue and these projects create jobs.. what good is any job if it promotes the destruction of the environment we need for our survival.

Therefore any project that would in any way aid in the promotion of nuclear plants should be abandoned.

Very truly yours,

Eleanor G. Coleman

THE
COMMITTEE
FOR A
BETTER
ENVIRONMENT,
INC. P. O. BOX 209, HOLMDEL, NEW JERSEY 07733

Statement For the Committee on Public Works
U. S. Senate and U. S. House of Representatives
on the
Legislation to Deauthorize the Tocks Island Dam
submitted by
J. Douglas Sinclair, Chairman,
The Committee For A Better Environment, Inc.

The Committee For A Better Environment, Inc., has studied and discussed the proposed Tocks Island Dam project and concluded the benefits that could be accrued from the project (primarily water supply and power) are substantially less important than the benefits currently available (primarily recreational) without a large expenditure of public funds. While the project is touted to provide substantially more shoreline than is presently available, the recreational value of that shoreline is questionable in view of the large variations in water level expected and the liklihood that a few years after the construction the high phosphate content of the water will have initiated the rapid aging of the reservoir through eutrophication. On this basis the recreational value of the area will be vastly reduced from its present high level to something much lower. Many of the existing recreational facilities and trails, and much of the wildlife and wooded areas will be underwater if the Dam is built.

For these reasons we urge that the Senate and House of Representatives deauthorize the Tocks project by proceeding immediately with favorable reports on S. 3106 and H. R. 12462, respectively.

THE CONCERNED CITIZENS OF MONROE COUNTY
110 LINDEN ST
STROUDSBURG, PA. 18360

August 10, 1976

Hon. Mike Gravel, Chairman
Subcommittee on Water Resources
4204 Dirksen Office Building
Washington, D. C. 20510

STATEMENT FOR
SUBCOMMITTEE ON WATER RESOURCES OF THE COMMITTEE ON PUBLIC WORKS

(Please make the entire statement which follows part of the Hearing Records of July 23 and 26.)

SUBJECT: Senate Bill #3106 - Legislation to deauthorize the Tocks Island Reservoir Project

Membership of the Concerned Citizens of Monroe County, with headquarters in Stroudsburg, Pennsylvania, a group politically non partisan have been and are now opposed to the construction of the "Tocks Island Dam" in the Delaware River.

Our members have actively participated in the various Public Hearings held from time to time, submitting testimony on pertinant issues, setting forth valid reasons for our opposition. Since this testimony is already part of the record, we see no point to reiterate all of the text except for one small statement which has relevancy to the recent happening at the Teton Dam.

> "The sudden release of the potential energy of the impounded waters would cause extensive loss of life and property throughout the entire Delaware Valley." ---"It would be tragically ironic if the proposed dam, built ostensibly for a beneficial purpose, could be turned into a nightmare of destructive power."

The People in the Valley of the Delaware River in both Pennsylvania and New Jersey have been deeply moved by the tragic events which occurred at the Teton Dam. Our heartfelt sympathy is with the unfortunate victims whose voices were not heard in protest of the dam and now have lost loved ones, homes, farms and irreplaceable belongings.

The People realize now more fully what might have happened in the Delaware Valley had it not been for the strong leadership of our elected officials and those in neighboring states who persistently and forcibly brought attention to the Members of Congress reasons why pressure from DRBC, lobby groups etc. should be opposed as an unnecessary, unwanted Billion Dollar project.

The Teton Dam catastrophe was a shock to the American Public and surely it must have been to Congress also--particularly since the cause was from man's creation rather than from the uncontrollable elements. We assume there is, or will be, a full Congressional investigation for disclosure to the Public, placing responsibilities for the direct cause of the failure and the amount of "Tax Dollars" required for complete indemnification of the Federal Government's responsibility for the tremendous damage sustained.

The similarity of the known conditions surrounding the "Teton Dam" and the "Tocks Dam" is so striking it appears that now there will be no hesitancy on the part of your Committee and the full Congress to DEAUTHORIZE the Tocks Dam to prevent the occurrence of another catastrophe of much greater proportion due to greater population and property values downstream--including Trenton, capitol of New Jersey, and the city of Philadelphia.

Therefore, we request Congressional action be taken NOW to terminate authorization for the Tocks Island Reservoir Project and to provide funds for construction of a divided four lane highway between I-84 and I-80 to relieve the massive Interstate truck traffic from Route 209--and thereby bring a halt to the Loss of Life, Injuries and Property Damage.

The People in the area of this narrow two lane country road called "209" surely deserve this consideration from their Government! THIS ROAD IS AN UNDISPUTED DEATH TRAP!

Respectfully submitted,

Dolores L. Decker

Dolores L. Decker
President

Copies to:

Sen. Jennings Randolph
Sen. Lloyd Bentsen
Sen. Quentin N. Burdick
Sen. John C. Culver
Sen. Robert Morgan
Sen. Gary Hart
Sen. Pete Domenici
Sen. James Buckley
Sen. Rob't. Stafford
Sen. James McClure
Sen. Edmund Muskie
Sen. Joseph Montoya
Sen. Howard Baker Jr.
Sen. Richard Schweiker
Sen. Hugh Scott
Sen. Clifford Case
Sen. Frank Church
Rep. Jos. McDade
Rep. Fred Rooney
Rep. Dan Flood
Monroe Co. Commissioners
Mina Haeffle

201 Pitney Place
Convent Station, N.J. &
Star Route, Columbia, N.J.
07832

Senate Public Works Committee
On Water Resources
Dirksen Senate Building
Washington, D.C.

Dear Mr. Chairman,

Speaking first for myself and a host of friends of like mind, We strongly urge you to bring about the deauthorization of the Tocks Island Dam and its companion scheme of infamy, the National Recreation Area.

We more than believe that these are chimerical and ill-conceived projects that must be forthwith relegated into limbo.

All lands that were acquired and now held in Federal hands must be turned back to their respective states, counties and municipalities and to dispossessed individuals who desire to repurchase their former holdings. It is not impossible to undo the damages already done; time will heal all things.

It is axiomatic with many that the Federal government cannot and never will do the job that the home-folks can do in matters of this nature.

Sincerely yours,

Frank Dascoll

Frank Dascoll

Delaware & Raritan Canal Coalition
R.D. 1, Princeton, New Jersey 08540

To The Committee on Public Works
U.S. House and U.S. Senate

June 14,1976

Dear Sirs,

The Delaware and Raritan Canal Coalition supports #S-3106 and H.R.#12462 to deauthorize the Tocks Island dam. We hope you will report these bills out of your committee favorably.

On the basis of the $1.5 million re-evaluation of the project which was mandated by congress, the EPA, the Army Corps of engineers, and the C.E.Q. have all called for the deauthorization of this project. The D. and R. Canal Coalition agrees with the opinions of these 3 bodies.

sincerely,
Ronald Bond
(Ronald Bond, President)

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City of Trenton

Edward DiPovere
West Windsor Township

John B. Boniface, P.E.
Consultant
540 Main St. 3-B
Chatham, N.J. 07928
201-635-7514

DELAWARE RIVER SHAD FISHERMEN'S ASSOCIATION
TOCKS ISLAND DEAUTHORIZATION

In the 19th century, the Delaware River and its estuary produced more shad for market than any other tributary on the Atlantic coast. In the 1890's the records of the time show the total catch at 10 to 20 million pounds per year with 500 thousand pounds in the fresh water section above Trenton. In the early decades of the 20th century, the commercial catch dropped to almost nothing. A shad seining club at Milford, Pa., experienced a decline from 5000 fish per year to less than 12 in 1948 when the club disbanded.

In 1961, fishing with light tackle for shad, and using lures found to be effective in the Connecticut River established sport fishing again, but now with the type of tackle which sportsmen currently favor. Netting is of course still the method used by commercial fishermen and was for the so-called sport fishing for the Milford Club in the gay nineties.

The studies made in recent years indicate that a high percentage of the spawning of the shad occurs now above Delaware Water Gap. Hence building the dam would presumably greatly reduce the total shad population, and hence the sport fishing. Although it is possible to get anadramous fish around the dams the fingerlings frequently are unable to find their way through large impoundments. The Tocks impoundment probably would be such an impoundment.

It would thus appear that for both sports and commercial fishermen that the construction of the Dam would be a catastrophe. In view of this committee's responsiblity for water resources, it appears to this witness appropriate to comment on the relation of the shad to the resource which is the Delaware.

Using the figures previously cited as to the 19th century Delaware shad fishery production the retail value of the roe shad could be between 12 and 24 million dollars, with the value of the buck shad adding 2 to 4 million more.

In the three to six years that shad live in the ocean, their food is primarily plankton. The shad thus harvests this basic food source for us and brings it practically to our door steps, while neither Russian nor Japanese trawlers now are equipped to intercept it. In the years ahead, as protein foods become less available per unit of population, we certainly should make every effort to rejuvenate this source which once was so important a contribution.

(In the July 1976 issue of the Pennsylvania Game News, it mentions that large numbers of shad were netted in the Schuylkill, salted and barrelled for the Continental Army after the vigorous Valley Forge winter. The shad must have been a welcome change after the hardships of that winter.)

As far as I am aware, there is only one organization of sport shad fishermen,-the Delaware River Shad Fishermen's Association with headquarters in the Park Square Building, Morristown, N. J. We members look upon shad fishing in the Upper Delaware as the best fishing of the year. I have fished for Atlantic salmon in Ireland at Bundoran on the west coast of the island, Ressurection in the Pinware in Labrador, and for Pacific salmon in ~~Reservation~~ Bay in Alaska. Fishing in some remote spot from home always has an aura, but as for pure fishing challenge, pound for pound, the shad and the salmon are comparable.

The shad is a stream-lined, powerful swimmer, which when hooked, leaps, makes long runs, spooks, and knows how to use the current to its advantage. It will tire the wrist or forearm so that when and if the actual netting of the fish occurs, the fisherman's arm is limp and often shaking from excitement and fatigue.

No river on the east coast of the United States has a greater potential clientele of resident fishermen, nor a greater potential for satisfying that clientele if we keep the Delaware free of dams and provide a suitable environment otherwise for the shad. EPA is preparing a suit against Philadelphia to push that city into improving its sewage treatment now. This witness, at the request of EPA in Philadelphia is a witness for shad fishing in this case before a Federal Court judge. The case has not been heard yet. Industry certainly has improved its waste water treatment but could still do better. It is up to this Congress, as the policy making arm of our government to do its part in improving the quality of our living and make possible a substantial addition to our protein food supply.

John B. Boniface

JOHN B. BONIFACE
FOR THE DELAWARE RIVER SHAD FISHERMEN'S ASSOCIATION

DATED: July 20, 1976

STATEMENT OF DELAWARE VALLEY COUNCIL OF AMERICAN YOUTH HOSTELS, INC.
ON
S.3106 HEARINGS - JULY 26, 1976
Before The
SENATE WATER RESOURCES SUBCOMMITTEE

My name is Anne M. Carroll and on behalf of the Delaware Valley Council of American Youth Hostels, Inc., I would like to submit the following statement:

Construction of the Tocks Island Dam on the Delaware River would be a definite disservice to not only those people who live in the immediate vicinity of the proposed dam, but to the multitudes who visit this unique area of natural beauty and significance in order to participate in the many recreational possibilities to be found in the Minisink Valley. As they now exist, the free-flowing river and its surrounding valley can and do provide a rich variety of recreational activities which, should the dam be constructed, would radically change in nature and in consequence, be deteriorated in quality and ultimately destructive to the natural integrity of the area. The dam would mean that many dispersed recreational activities would be replaced by a few such activities concentrated in a considerably reduced geographic area. While the proposed recreational area to surround the dam would attract vast numbers of people, it would then funnel them into a few limited areas and the result would be great crowds of people innundating the area and seriously overtaxing the facilities available to them. In addition, scientific studies have shown that the dam would effect progressively deteriorating water quality as a result of eutrophication, and it would only be a matter of time before the area would no longer be suitable for even the limited recreational uses the dam would provide.

The Tocks Island Dam should be deauthorized at the first available opportunity.

(Submitted by: Anne M. Carroll
21 E. Stratford Ave., Lansdowne, PA 19050
On behalf of: Delaware Valley Council AYH)

ENVIRONMENTAL POLICY CENTER
317 Pennsylvania Ave., S.E., Washington, D.C. 20003
(202) 547-6500

TESTIMONY OF

STEVEN SHAMBUREK

BEFORE THE

SENATE PUBLIC WORKS COMMITTEE

SUBCOMMITTEE ON WATER RESOURCES

ON S. 3106

TOCKS ISLAND DEAUTHORIZATION

July 26, 1976

ENVIRONMENTAL POLICY CENTER
317 Pennsylvania Ave., S.E., Washington, D.C. 20003
(202) 547-6500

For many years the Environmental Policy Center has opposed the construction of the Tocks Island project on the Delaware River. We support deauthorization of the project but wish to raise one objection about S. 3106.

The Tocks Island project design called for the relocation of Route 209 as the road would have been inundated by the reservoir. However, without the dam it appears that there is no longer any justification for relocation. We are concerned because section 4 of S. 3106 directs the Department of Interior to relocate the route. We do not believe that the authorization of a highway should be attached to a deauthorization of the dam. This Subcommittee is most assuredly adept at judging the merits of the relocation provision. We feel, however, that the Subcommittee on Transportation should examine any authorization for a highway relocation.

Moreover, we believe that an examination of the traffic pattern in this region would militate against relocation. In eight months to a year, Interstate 84 is scheduled to be completed; the Interstate will link up with Interstates 80 and 81. This network of highways will be able to handle all current and anticipated east-west commercial traffic (see attached map). When the interstates are linked next summer, Route 209 should be closed to commercial traffic and designated a scenic highway. Such status would complement the recreational area. It would also require that the maximum speed limit be reduced to 45 MPH. Needless to say, a reduced traffic load and speed limit would rectify the safety problem on Route 209.

Proponents of relocation have argued that Route 84 does not have adequate supportive facilities (restaurants, filling stations, etc.). While we cannot rebut the argument at this time, it should be obvious that a relocated 209 would not be available for at least eight years and would surely have less supporting facilities than the completed 84. (Relocation is to commence in 1978 and would be completed in eight years at the earliest.) The present 209 and the relocated 209 would be remarkably similar structures--both would be two lane highways. (The relocated 209 could be expanded to four lanes at a future date.) Even if relocation occurs, the safety problem on 209 will continue until at least 1986.

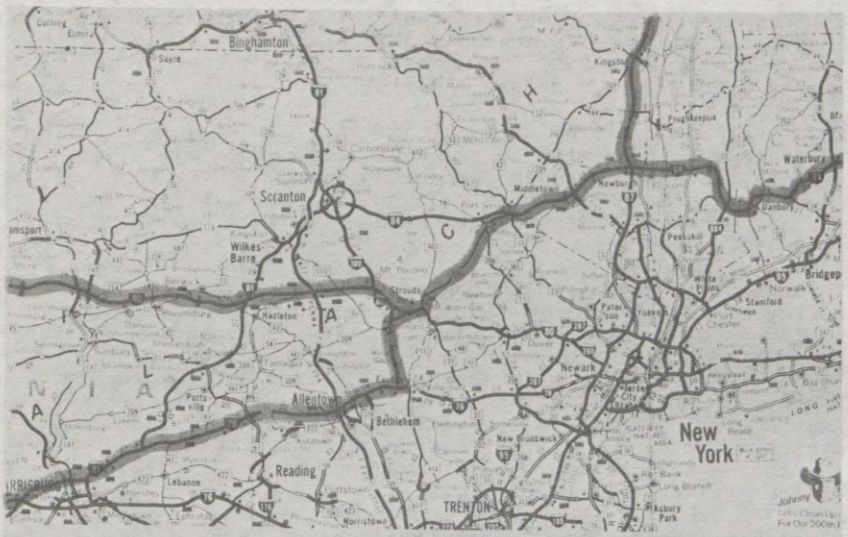
Furthermore, since supportive facilities would not immediately be available on the relocated 209, the truckers might continue to use the present 209. This would allow the traffic and safety problems to continue indefinitely.

The testimony given by the National Park Service seems to indicate that they wish to see Route 209 relocated. Nevertheless, we would like to see this Subcommittee or the Transportation Subcommittee request the National Park Service and any other interested parties to comment on the above proposal.

Throughout this protracted controversy, the Environmental Policy Center has maintained that the Tocks Island Project would not meet the needs outlined by its proponents. We stand by that judgement today. We do acknowledge, however, that there are some real and pressing needs in the Delaware River basin. In previous testimony, we have suggested that the Army Corps of Engineers look into alternatives to the dam project. We hope to see this Subcommittee direct the Corps to provide feasibility studies and environmental assessments of those alternatives.

We recommend that this Subcommittee reject section 4 of S. 3106 but pass the amended bill. We invite this Subcommittee to request the Transportation Subcommittee to examine the vastly complex issues surrounding relocation of Route 209. Finally, as suggested in the above paragraph, we hope this Subcommittee will direct the Army Corps to examine alternatives to this project.

Thank you for the opportunity to present our testimony.



Current East-West Traffic Pattern
Note the critical link on Interstate 84 (circled). On a color-coded map, the circled section would appear in a color indicating that the route is not yet complete.



Alternate route which should be used subsequent to the completion of Interstate 84.

FEDERATION of FLY FISHERMEN

Route 97
Barryville, New York 12719
July 23, 1976

Dear Senator Gravel :

I was extremely disappointed to learn that I would not be able to testify at the Tocks Island Dam Project hearing and therefore also be unable to meet with the Press in Washington.

I have enclosed a newspaper column written by Phil Chase, Vice President of the Federation of Fly Fishermen and Orange County Director of Catskill Waters. The content of my testimony for both of these organizations are directly reflected in his article.

I would like to reiterate that we already have two ill-managed reservoirs on the headwaters of the Delaware that have great potential of rendering flood protection to the valley below. Ironically these New York City owned impoundments are maintained at the maximum storage capacity hydrological conditions allow, thus obliterating their value for flood control. As a result the river is being asphyxiated from inadequate

FEDERATION of FLY FISHERMEN



downstream water releases.

Indeed the construction of the Tocks Island Dam is economically impractical, ecologically irrational and would undoubtedly bring the majestic Delaware to a futile demise . We urge de-authorization.

Sincerely,

Aaron I. Robinson

Aaron I. Robinson
Federation of Fly Fishermen
Catskill Waters

86 Thursday, July 22, 1976 THE TIMES HERALD RECORD



Tocks Dam controversy brews groups try to stop project

By PHIL CHASE
Record columnist

The de-authorization of the Tocks Island Dam project is taking on the aroma of a dead Delaware shad. Testimony is to be heard Friday in Wash., D.C. concerning the de-authorization that would permanently put Tocks to rest.

Aaron Robinson of Barryville followed the procedure called for by Mike Gravel, chairman subcommittee on water resources, so that he could register to testify. Robinson was to speak for the Federation of Fly Fishermen (FFF) and Catskill Waters (CW). The FFF is a national conservation organization of about 160 clubs while CW is a coalition of sportsmen's groups of the Catskill region representing seven counties.

Robinson received a telegram from Gravel early this week informing him that Monday had been added for testimony and, "the witness list has been completed. Due to the large number of persons requesting time to appear, the subcommittee is unable to accommodate everyone. I am asking that you file a statement for the printed hearing record in lieu of oral testimony. I sincerely regret that it will be impossible to hear all who wish to appear, but wish to assure you that your views will receive the same consideration as if read in the course of the hearing."

Harold Lockwood, chairman of Save the Delaware Coalition, which has been the mainstay of collecting information and educating the general public to the pitfalls of Tocks, claims, "this is a well-organized power play by Gov. Milton Shapp of Pennsylvania and the electrical utilities of Pennsylvania and New Jersey to keep this project alive.

Both the corps of engineers and the Delaware River Basin Commission (DRBC) want Tocks for a future project even though millions of dollars of studies show the fallacy of the project."

Miss Bunny Gomery of the Sierra Club, when notified of the hearing, applied immediately for testifying in Washington and was also turned down. "Only five witnesses of the general public may speak in favor of the project and five in opposition to it. Hal Lockwood has been given time to speak for a total of five minutes. Gov. Shapp and the Pennsylvania politicians have stacked the cards against the environmentalists. They don't want us to reach the press but we are going down anyway and present our testimony. We intend to protest strongly to the way these hearings are being run."

Lockwood claims that Gov. Hugh Carey of New York has yet to indicate that he or his representative will testify. New York, represented by former DEC commissioner Ogden Reid, was a major factor in scrapping the dam.

Robinson will file a statement for the record including the following:

— The million dollar Madigan-Praeger study, which was to be 'the last study' of the Delaware, did not offer substantial proof that the Tocks Island Dam was necessary for flood control, water supply, recreation and power production.

— A major alternative completely by-passed by the report was a promised study of headwater reservoirs owned and managed by New York City. Necessary flood control of the Delaware is possible with the existing city reservoirs if properly managed.

— A New York State DEC computerized study has proven that the reservoirs are not presently being managed to offer flood control or properly managed to offer downstream release patterns which would benefit both the Delaware and Neversink Rivers.

— The DRBC, a super-government established and state jurisdictic attempted nor show the flood potential servoirs that are m sely to be 100 per ce no flood control fo residents.

— A superb shad be eliminated by th of Tocks Dam.

— Forty miles of sent recreation of t would be inundated a eutrophied reservoir stituted. The reserv tuate leaving a ring acres of mud flats Jervis.

— The $350 million would force Orange, and Sussex Counties tional $362 million se that was not used in the Corps cost-benefi

— That a 200-mi river should have dam that would offer life of ten years and a water storage for 5 trade off that must cepted.

It was not accepte must be de-authorize ently protect a unique miles with no dam.

FRIENDS OF THE EARTH

IN THE DELAWARE VALLEY

Reply to:

ENVIRONMENTAL NEWSLETTER
757 N. CROSKEY ST., PHILA., PA. 19130

STATEMENT ON S. 3106

The Friends of the Earth of the Delaware strongly supports the deauthorization of the Tocks Island Project. In the fourteen years since this project was authorized, the public has learned what an economic fiasco and environmental catastrophe this project would be.

We urge the Committee not to let the subsidiary issue of the relocation of Route 209 in Pennsylvania delay the deauthorization process. Proponents of the relocation should not be allowed to hold the deauthorization process hostage in hopes of obtaining Federal funds for Pennsylvania's road construction.

The Delaware has waited too long in implementing soumd resource planning.because of the uncertainty created by the Tocks Island issue. Please support S. 3106 and finalize this this fourteen year controversy.

Rudolf Krohs

The Fund for Animals, Inc.
7-01 15th STREET
FAIR LAWN, N.J. 07410

RICHARD KENLY
N. J. COORDINATOR

(201) 791-7935

July 13, 1976

STATEMENT BEFORE HEARINGS ON TOCKS ISLAND DE-AUTHORIZATION

The Fund for Animals, Inc., an international, non-profit organization dedicated to the preservation of wildlife, strongly urges the immediate de-authorization of the Tocks Island Dam Project.

As we testified at prior hearings, we believe the project to be a gigantic boondoggle; destructive to one of the most scenic areas remaining in the East and destructive to vast numbers of diverse wildlife species. The willful annihilation of animal life inherent to this project should it persist would represent the most heinous of crimes.

Let us keep this magnificent valley and its many animal residents in their natural state for all generations to enjoy. To those with the power to de-authorize this project who properly exercise that power will go the gratitude of people everywhere who realize and appreciate all that is truly of value on this planet and is therefore priceless: the world of nature.

We must remember that man cannot begin to learn the ways of man before he learns the ways of nature, and we cannot hope for a finer location in which to learn this valuable lesson than the Delaware Valley as it exists today.

We urge once again the immediate de-authorization of the Tocks Island Dam Project.

Thank you.

Richard C. Kenly
N. J. Coordinator & Field Agent
The Fund for Animals, Inc.

Thomas J. Halligan
P.O. Box 1438
Scranton, Pa. 18501
July 17, 1976

Honorable Mike Gravel, Chairman
Water Resources Sub-Committee
Public Works Committee
United States Senate
Washington, D.C. 20510

Dear Senator Gravel:

The attached statements and exhibits are submitted to your Committee on Water Resources with the request that they be accepted as written testimony for the record at the public hearing on Senate Bill 3106, to be held on Friday, July 23, 1976, which we are unable to attend in person. More specifically, this testimony deals with Section 4 of SB 3106. It is a detailed petition opposing the relocation of Route 209.

After extensive research into the plans put forward by government agencies, plus on-site inspections, interviews, and attendance at meetings and hearings, certain conclusions have been arrived at, and general recommendations made in the public interest. We are reasonably sure that this report reflects a consensus of opinion of many local citizens.

There is, as is the case with many highway proposals, controversy surrounding the project described herein. You will be involved in the decision making process, and should therefore be informed of the pertinent details we wish to bring to your attention, to assist in the disposition of this matter.

Yours truly

Thomas J. Halligan

EXHIBIT A

ROUTE 209 SAFETY CONSTRUCTION PROGRAM MAY ELIMINATE NEED TO RELOCATE HIGHWAY

Construction started Monday, July 12, 1976, to improve roadway safety on Route 209, which is proposed for relocation by proponents of the Tocks Island dam. The project is funded by 70 per cent federal highway safety funds under the 1976 Federal Aid Highway Act.

The sections of Route 209 involved have histories of wet weather skidding accidents and have been tested with a skid testing device and been found to be very slippery. Most of the project will involve resurfacing slippery pavement with special anti-skid resurfacing material and grooving the roadway for better braking. Also included will be guard rail installation, banking of turns and improvement of drainage.

This anti-skid program will save lives and prevent injuries by eliminating substantially the number of accidents on Route 209. Last year, a similar anti-skid program on dangerous sections of other highways reduced the accident rate significantly.

The sections of Route 209 involved in this safety program are located in Dingman, Bushkill, and Lehman Townships, in Pike County, Pennsylvania. Several miles, or approximately twenty per cent of the highway proposed for relocation, are involved in this safety construction program. The cost will exceed $400,000, and work could be completed this summer.

EXHIBIT B

SECTION 4 SHOULD BE DELETED FROM SENATE BILL 3106

Section 4 of Senate Bill 3106 reads in part: "The Secretary of the Interior shall, as part of the authorization for the Delaware Water Gap National Recreation Area, relocate United States highway number 209 to the western side of such area..." What this actually means is that the National Park Service wants to confiscate the existing Route 209 and use it exclusively as a park thoroughfare. Eventually, the Park Service would like to charge tolls on this roadway at the entrances to the recreation area!

As stated above, the relocation right-of-way is adjacent to the "western side" all right, but definitely outside the boundaries of the National Recreation Area, thereby obligating the Commonwealth of Pennsylvania to all future maintenance and repair costs, including the 32 bridges. The cost of this project would be paid for with 70 per cent federal and 30 per cent PennDOT funds. That translates into a 25 million dollar state highway appropriation for Pike County. That would use up Pike County's highway fund allocation for about the next fifty years! It would be misleading to assume that the General Assembly in Harrisburg would vote for such an absurd measure.

Please note carefully, there are indications that a formidable citizens' legal intervention will be launched in Commonwealth Court, and the state appellate court system if necessary, to enjoin the Pennsylvania Department of Environmental Resources (Bureau of State Parks; and Forestry; and the Game Commission), and/or the Transportation Department from transfering title of land or granting easements in the Childs State Park, or the (Pa.) Delaware State Forest and Game Lands to the Corps of Engineers or the National Park Service for a Route 209 relocation. Thus delaying indefinitely any attempt to build that super-highway on state public lands. If Congress passes "Section 4" of Senate Bill 3106, it will be throwing down the gauntlet...and the issue may well be joined!

The attention of the Senate Public Works Committees and the Congressional Budget Office is directed to a proposed federal highway construction project that should receive your careful scrutiny. We are referring to a proposed 35 mile relocation of U.S. Highway Route 209 in the Pocono Mountains, extending from Milford, Pa. to Delaware Water Gap, Pa. Environmentally, this relocation could be a disaster. There are also major legal barriers to its realization.

But first and foremost, it is the cost factor that cannot be justified. In order to build this connector road to the interstate highway system from Interstate 80 to Interstate 84, the Congress may have to authorize a one-hundred and fifty million dollar debt obligation.

With the termination of the adjacent Tocks Island Dam and Reservoir project now a distinct probability, the U.S. Army Corps of Engineers apparently are about to fold their tent and move on, sparing a section of the Upper Delaware Valley from devastation. The Corps is not going to flood this area. Therefore, sections of U.S. Route 209 are not going to be inundated, so it need not be relocated.

Thus, a delemma faces the highway lobby and their allies. What sort of rationale must they conjure up for the wasteful expenditure of federal funds for a road that is no longer necessary to build? The cost-benefit ratio slight-of-hand formula used for the overall Tocks project will not be applicable for the highway proposal standing alone.

It seems from various press releases that "highway safety" has become the rationale. You can, of course, all stand up for Highway Safety, along with Mother and the Flag. The fact is U.S. 209 could easily be widened to four lanes along its existing corridor to improve road safety. This salient point, however, never seems to occur to the highway lobby. The 209 zealots also bandy about outdated accident statistics that do not take into consideration the fact that U.S. Route 209 has been used as a temporary truck route while Interstate 84 was under construction. The last 2 mile link of I-84 will be completed next year, thereby eliminating most of the truck traffic on U.S. 209. (see Exhibit A)

We understand that there was approximately 4 1/2 million dollars tentatively set aside in the current congressional budget for planning the relocation of U.S. 209 and for the taking of properties by

condemnation from those who do not want to sell their homesteads. The Public Works Committees should delete these funds from the budget. Ironically, some people who had their homes and farms taken by eminent domain for the defunct Tocks Reservoir have not been payed yet. Some have been waiting years for their money from the U.S. Army Corps of Engineers. The most subtle absurdity, however, is the fact that the relocation plan is for the start of construction on only 23 miles of the 35 mile highway. The remaining 12 miles may not be authorized for ten years.

The Public Works Committees are confronted with is a proposal to finance an extremely costly highway; costly in more ways than one. The engineering designs call for no fewer than thirty-two bridges (two of them an incredible 250 feet high) over the 23 mile relocation route, distinguished by its roller coaster topography.

Regarding conservation, it must be pointed out that the relocation corridor is surrounded by hundreds of square miles of forest and game lands; including the U.S. Forest Service Gifford Pinchot Preserve, which would be adversely affected. Pinchot's beautifully forested estate was donated to the American people in 1963. Gifford Pinchot (1865-1946) served as the first chief of the Forest Service of the U.S. Department of Agriculture. He was a visionary conservationist who's majestic woodland, and its abundant wildlife, are now threatened with air, water, and noise pollution. This would be a great loss to the nation's natural beauty.

Perhaps the most exotic aspect of this relocation scheme is the U.S. Army Corps' policy that claims that because Route 209 is now a two-lane highway, Uncle Sam has only to pay for two-lanes worth of the location. The taxpayers of Pennsylvania may be privileged to pay the rest of the one-hundred and fifty million dollar construction costs. Uncle Sam, however, will try to condemn and take by eminent domain a right-of-way 360 feet wide, minium, for the "two-lane" relocation, plus land for the six massive interchanges. Pennsylvanians are expected to pay for the other 23 miles of "two-lane super-highway," plus several miles of slow-truck passing lanes, plus 16 of the bridges, or so the highwaymen think. A ranking member of the House Transportation Committee of the Pennsylvania General Assembly recently indicated that no state matching funds will be appropriated in the foreseeable future for projects

such as the U.S. Route 209 relocation. It seems the Pennsylvania Department of Transportation (PennDOT) has a cuphoard that is bare. So, the ball is in Washington's court! (see Exhibit B)

The legal roadblocks standing in the way of the relocation are formidable. An environmental impact statement, exclusively for the purpose of relocating Route 209, has not, to the best of our knowledge, ever been submitted to the U.S. Council on Environmental Quality, or the U.S. Environmental Protection Agency, for review, comment, and public hearings. This places the project in apparent violation of federal laws and the federally mandated PennDOT Environmental Action Plan (pursuant to the Federal Highway Act of 1970). The state Action Plan must identify the economic, social and environmental effects, both beneficial and adverse, of relocating Route 209, early in the planning process, as well as, alternative courses of action. PennDOT is presently in noncompliance with this law. We hereby request that the Congress seek an advisory opinion from the Council on Environmental Quality and the Environmental Protection Agency to determine what course of action should be taken regarding the Environmental Impact Statement for the Route 209 relocation.

Equally important, perhaps, are the following precedent setting court rulings. The U.S. Court of Appeals for the Second Circuit ruled unanimously in December 1974, that the Federal Highway Administration must prepare a full environmental impact statement of its own on the entire proposed U.S. Route 7 Expressway planned from Norwalk, Conn. to Burlington, Vt. Writing for the Court, Judge Arlin Adams said it is not enough to rely on a state's environmental assessment because "in attempting to secure Federal approval of a project, self-serving assumptions may inetuclably color a state agency's presentation of the environmental data." Environmentalists have justifiably charged that the highway builders were trying to avoid considering the impact of the entire highway by just building it bit by bit.

This case is relevant because Congress is being asked to budget funds for relocating a 23 mile section of 209 only; from I-84 near Milford, Pa. to Bushkill, Pa., where the new four-lane highway would end. (The remaining 12 miles may not be authorized for 10 years--see Exhibit C). The new four-lane road would be funnelled into the old two-lane Route 209 for the remaining distance of about 12 miles to a point where it connects

with I-80 near the Delaware Water Gap. The traffic jam-ups at Bushkill would be horrendous, creating public outcry and pressure on government to "finish the job" (at a cost of an additional 50 million dollars). This is precisely what the highway lobby would like, its part of their game plan.

But, to finish the job would bring about severe damage to the Minisink Hills in the vicinity of the Delaware Water Gap. A super-highway traversing this area would do irreparable harm to the environment. For one thing, there are substantial historical and archeological relics and specimens of Native Americans located in the Minisink Hills that could be destroyed as a result of the construction of a super-highway. This area is a virtual treasure-trove of American Indian artifacts. The Delaware Tribe resided in the Minisink for more than a 1,000 years. Keep in mind that there are legal ways and means of protecting these archeological treasures from desecration.

Another important decision that is relevant to the Route 209 project is at Swain vs. Brinegar, Peroria, Ill., which deals with the supplemental freeway system. Federal Judge Luther M. Swygert, for the Seventh Circuit Court of Appeals, ruled on April 29, 1975, that the Federal Highway Administration (FHWA) cannot delegate to the states the responsibility for preparing the environmental impact statements required by the National Environmental Policy Act. The Circuit Court concluded that because the FHWA failed to prepare the impact statement, "further work on this federally funded highway must cease." It should be evident that, if the Route 209 relocation project is to be considered at all, the Federal Highway Administration should be directed by Congress to prepare the draft environmental impact statement on the entire 35 mile plan to relocate the highway.

There was also a decision made recently, not by the courts, but by the U.S. Secretary of Transportation, that could well apply to Route 209. Reference is made to Secretary Coleman's ruling on August 1, 1975 rejecting the plan to build the I-66 link between Northern Virginia and District of Columbia. He stressed that a major new highway built principally to service commuter traffic will create serious environmental problems.

It is clear from the promotional literature circulated by Pocono land developers in the metropolitan New York and New Jersey areas that they are catering to a wealthy weekend commuter clientele. They entice potential

condominiun and ski chalet buyers with offers like: Only one-hour and twenty minutes by car, non-stop, (via I-80) from the Lincoln Tunnel to the Delaware Water Gap Bridge. Of course, from that point the land speculators desperately need another super-highway link going north directly into the remote mountains (namely a relocated 209) to make their so-called vacation home sites speedily accessible to metro commuters. Perhaps Secretary Coleman should be petitioned to rule on the commuter aspect of the Route 209 relocation plan.

Land developers with plenty of bank credits several years ago, anticipating a bonanza in real estate, to be generated in part, so they thought, by water related recreation at a federal reservoir stretching 37 miles north of Tocks Island, began to buy up every rock pile and swamp in the Poconos. Unscrupulous fast-buck-artists, perched like vultures on the mountain cliffs, were awaiting the death of the fertile Delaware Valley below at the hands of the river killers--the Corps of Engineers. But, they miscalculated. The scenario did not work out the way they had planned. Their reservoir was never built.

In addition, the ensuing recession caused the real estate investment trusts to pull out of Pocono land ventures. The bottom has fallen out of the vacation home market. The recession also precipitated a mountainous avalanche of sub-division foreclosures that in turn has brought crashing down on the heads of the fast-buck-artists consumer fraud complaints by the hundreds, plus numerous lawsuits, defaults and bankruptcies.

The propaganda about a new highway to promote free access to Pocono recreational lands for the urban masses is a lot of malarkey! The Pocono exploiters were developing exclusive playgrounds for the over-affluent few. The motivation behind their scheme was, and is, greed. Their conpatriots in the relocation of 209 are the franchise moguls, who have vested interest in the highway venture. The massive interchanges planned, that lead into what is now wilderness and remote rural areas, would increase the potential value of the adjacent private lands, which the franchisers probably have options on, substantially. If 209 is relocated in these remote unpopulated areas, will not Congress, inadvertently, be promoting more real estate fraud and land use patterns which tend to generate excessive automobile needs, at a time when energy conservation should prevail? If 209 is pushed through the mountains, can Howard Johnson,

Ronald McDonald and the Exxon Tiger be far behind? And so would go, not just another vista, but a large segment of the rapidly vanishing American Wilderness.

Finally, there is the problem of the twin-headed monster known as cost overrun and inflation. We submit that the 209 relocation would be inflationary and plagued by astronomical cost overruns. We believe that it will be in the public interest for Congress to cancel the project. Quite often, ceilings set by Congress when authorizing highway projects are circumvented by various cost of labor and material increase clauses. These built-in overruns often constitute multi-million dollar flimflams on Congress and the taxpayers alike. This is because the original estimated costs submitted to Congress are sometimes based on fabricated statistics and misleading economic assumptions.

In order to find out if the inflationary impact of the 209 relocation has been properly evaluated, Congress should determine if Executive Order 11821, dealing with "Inflation Impact Statements," dated Nov. 27, 1974, is applicable. Presumably, the Federal Highway Administration, or some other U.S. agency, is required to certify that the inflationary impact of the highway proposal has been evaluated pursuant to the Office of Management and Budget Circular No. A-107, Jan. 28, 1975. In all probability, this requirement has not yet been complied with.

The Corps of Engineers with the concurrence of PennDOT, has officially placed a price tag of 75 million dollars, at 1970 estimated prices, on the 209 relocation project. A more realistic price tag, at 1976 estimates, would run well over 100 million dollars; and that is only for the incomplete 23 mile stretch referred to above. This 100 million dollar cost would not even allow for the inevitable overruns. Nor would it account for the 3 to 4 million dollar per-mile future construction cost for the remaining 12 miles to the Delaware Water Gap. There is faint justification for placing such an enormous debt obligation on the American taxpayers merely to build a short connector highway. Rational judgement dictates that this pork-barrel type project be terminated.

For a relevant footnote to this report, we turn to the financial predicament in New York City. One of the costliest public works projects ever undertaken in New York is known as the "Third Water Tunnel." The tunnel's overruns became a major contributing factor that led New York to the brink of financial ruin.

Instead of establishing a city-wide water metering system along with a program of water conservation five years ago, the big spenders in City Hall opted for a 223 million dollar project to bring additional water into the city from up-state reservoirs. Ironically, those reservoirs were to receive much of the added water supply via a pipeline all the way from a so-called "lake" that would back up behind a dam at Tocks Island (the dam which was never built on the Delaware River).

Approximately one year ago, a consortium of six contractors shut down work on the water tunnel when the city government refused to approve a re-negotiated contract that would have raised the total cost of the tunnel from the original bid price of 223 million dollars to at least 385 million dollars and possibly as high as 500 million dollars. The tunnel, 24 feet in diameter, was being bored along a route from Yonkers through the Bronx and Upper Manhattan, across Central Park, under the East River and into Queens. The project came to a grinding halt somewhere beneath Central Park.

The contract for the first stage of the mammoth tunnel was let six years ago. The timetable called for the tunnel's completion in 1975. Instead, the job is less than half-finished with the contractors on strike, and both sides suing in the courts, claiming the other side bungled in their calculations. It seems that the geological surveys did not reveal the true extent or hardness of the sub-strata rock formations that were encountered as the actual construction work progressed.

This engineering fiasco has been extremely costly to New York, at a time when the city can ill afford it. It has contributed substantially to the city's insolvency. We predict that a similar fiasco, adversely affecting the federal highway program, will occur in the Pocono Mountains if U.S. Route 209 is relocated. The engineering designs were prepared several years ago by the Corps of Engineers, as an adjunct to the Tocks plan. It is unlikely that the Corps surveyed the geological formations accurately, if at all, along the 35 mile relocation route. We say this knowing that the Corps had to redesign and relocate the dam site itself after it was discovered that the original engineered site was directly over a fault.

Certainly, the 209 relocation corridor does not resemble the Kansas prairies. Rather, the terrain is extremely mountainous. It is characterized by deep bed-rock that will require drilling and blasting every mile of the right-of-way. This being the case, the cost overruns could easily result in a repeat of the water tunnel mess, thereby bringing about a similar contractor default and bankruptcy. We do not believe that the Congress would be in favor of this and will therefore reject the U.S. Route 209 relocation plan.

July 23, 1976 Public Hearing statement (For the record)

From: Casey Kays
205 Grand Avenue
Hackettstown, New Jersey 07840

To: The Senate Public Works
Subcommittee on Water Resources
Room 4200
Dirksen Senate Building
Washington, D. C.

Dear Chairman and Subcommittee Members:

Since 1965, as a private citizen and as a member of the Lenni Lenape League, I have been very involved with the efforts to save All of Sunfish Pond, a continous controversy------long associated with the Tocks Island dam project.

A "geologic oddity" located on top of Kittatinny Mountain, the Pond is now a registered National Natural Landmark, and a very unique scenic treasure of the state of New Jersey and the focal point of the Pahaquarry township's Worthington State Forest.

But approximately 370 acres of land (formerly a part of the Worthington State Forest which was sold and traded away to the private power companies in 1961, under former Governor Robert B. Meyner's administration) to the east of the Pond, is still owned by the private power companies. Their plans are to use this land to enlarge their already existing Yards Creek pumped storage facilities on Kittatinny Mountain, in conjunction with the proposed Tocks Island dam. To allow them to do so would destroy forever the natural watershed of the Pond (41.1 acres), its ecological integrity and the surrounding wilderness area.

(statement continues on page two)

Page two Statement by Casey Kays continues:

As already suggested and recommended by the U. S. Army Corps of Engineers, I feel the time has come to de-authorize the Tocks Island dam project, for reasons already indicated in the recent studies.

The news medias of New Jersey and Pennsylvania have pointed out many times, that there is no compelling reasons why the National Park Service should now be allowed to over-develop the beautiful and historic wildlife area of the Upper Delaware River Valley, commonly known as "the Minisink".

Here in New Jersey an ever increasing number of people believe the Delaware Water Gap National Recreation Area should also be de-authorized with the dam. Especially here in New Jersey, the land could be returned to the state and made a great and proud part of New Jersey's public park system. Joining it with the Worthington State Forest and Stokes State Forest of northern Sussex County would simply the situation as it now exists. No further land development would be necessary, saving the American taxpayers millions of dollars. Most importantly, it would preserve and protect this wildlife area in a manner and fashion and with the dignity it deserves.

We must keep our rivers "flowing free" and preserve the beauty and historic wildlife areas of our great America. Here in New Jersey, beginning in this Bicentennial Year, we have that golden opportunity to do so.

Thank You

Most sincerely,

Casey Kays

CASEY KAYS
205 GRAND AVENUE
HACKETTSTOWN, N. J. 07840

Casey Kays
(Help save ALL of the "whispering waters" of Sunfish Pond)



The League for Conservation Legislation

Box 605, Teaneck, N. J. 07666

Hearing testimony before Senate Subcommittee on Water Resources of Committee on Public Works on S. 3106 introduced by Senator Clifford P. Case calling for deauthorization of Tocks Island Dam, July 23, 1976.

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My name is Frank J. Oliver, a long time resident of Teaneck, N.J., 7th Congressional District. This statement is presented in behalf of the League for Conservation Legislation, a New Jersey public interest lobbying group supported by individuals and some 50 organizations, many of them official bodies. Among LCL's concerns are air and water quality, land use policy, flood plains and flood control, wild and scenic rivers and wildlife protection, also conservation of energy. After serving five years, in April I relinquished the presidency and now serve as a director of LCL.

The League for Conservation Legislation supports Senate Bill 3106 which would deauthorize the Tocks Island Dam project on the Delaware River and would authorize the completion of acquisition of lands within the delineated area of the Delaware Water Gap National Recreation Area. Leaving the beautiful valley as it is, with a free-flowing river, will provide a greater variety of rustic recreation on a year-round basis than would a eutrophic lake serving mostly sun and water bathers and powerboat enthusiasts in the summer. Deferral of completion of the recreation area would frustrate any meaningful planning for river front and flatland activities and services. Killing the dam will preserve habitat for wildlife and preserve historic sites.

The comprehensive study of the project completed by the consultants a year ago concluded that all the environmental impacts were negative on water, air and noise quality, fish and wildlife and vegetation, as well as historic sites.

The lake would be eutrophic from runoff from chicken and dairy farms in New York State. Boaters and swimmers would not enjoy the sight and smell of algae blooms that often create enough oxygen demand to kill fish.

Flood plain zoning is a non-structural alternative to the dam for flood control. New Jersey's Flood Plain Act is being implemented by delineation of flood hazard areas along the Delaware north of Trenton. Similar legislation is in work in Pennsylvania.

Water supply is still an open question. New Jersey is about to award a $1 million contract to a consortorium of consultants for preparation of the first statewide water supply master plan. In this three-year study, alternatives to Tocks Dam will be evaluated to meet the State's water needs. New Jersey has yet to draw upon its allocated amount of Delaware River water.

To justify any federal project, the annual benefits must exceed the annual costs. One way to achieve this result is to juggle projected estimates. The biggest single factor in these estimates is the pace of economic growth. In the comprehensive study of the project completed last year, the consultants admitted that the benefit-cost analyses suffered from inherent assumptions and imprecisions. When the dam project was authorized by Congress in 1962, flood control was to be the main benefit. But by fiscal 1971, the Corps of Engineers had calculated only $2.4 million annual benefits for flood control and $11.7 million for recreation, 50% of the total benefits. From the URS/Madigan-Praeger report (Table 16-7), flood control is benefited by $2.8 million annually, recreation $8.1 million.

The amazing figure, however, is $81 million benefit, or 74% of the total, assumed for pumped storage power, using privately owned facilities. Actually this dollar amount is derived from the alternative source of peaking power, namely, combined cycle turbines to be installed over a wide service area, far removed from from Tocks Island. The $81 million figure is based mostly on estimated wholesale power rate charges plus an arbitrary 5% markup of the cost of the turbines. For

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pumped storage power benefits, no allowances is made for the fact that a net loss of energy is involved since it requires 1.4 kw input to obtain 1 kw output from such a plant. To further confuse the figures, the annual power plant capital costs are based on 15% interest rate, while all public facilities are discounted at 5-7/8%. Considering that the consultants analyzed eight "scenarios" or future options on energy demands for the next 50 years, it is surprising that $81 million become a fixed figure.

In October 1969, at the instance of the Senate Committee on Appropriations, the General Accounting Office reviewed the Tocks Island Reservoir Project. The GAO challanged the estimates of the Corps of Engineers, both as to costs of construction and as to benefits, especially recreation. Many discrepancies were found. In a recent letter to the Comptroller General of the United States, Representative Robert A. Roe, 8th District, New Jersey, requested the General Accounting Office to investigate the review study of the Tocks Island Project. He was particularly concerned with the inconsistencies of the benefit-cost ratios prepared by the Corps of Engineers in 1974, compared with the widely fluctuating figures in two May 1975 drafts and the final report by the URS consultants. Specifically, Mr. Roe challenged the capital costs of the combined cycle power alternative and its use of a 15% "private" discount rate. He questioned the uncertainties in the estimates for benefits of pumped storage power and the effects this large proportion would influence the reliability of the overall benefit-cost figures.

The above analysis points out the futility of relying on benefit-cost ratios for decision making for a project as complex and controversial as this one. Many other very pertinent costs and benefits both quantifiable and non-quantifiable, some of comparable or greater magnitude than the "direct" ones are not included as part of the benefit-cost analysis but are reflected in the URS study in other evaluation categories.

The obvious conclusion is that there is no real demonstrated benefit-cost ratio exceeding unity for this project. The negative environmental impacts outweigh any economic considerations. Tocks Island Dam should be deauthorized.

Frank J. Oliver
1113 Cambridge Road
Teaneck, N. J. 07666

western union **Telegram**

IPMPOMT HSA
2-007349E212 07/30/76
ICS IPMMTZZ CSP
2016894972 TDMT WASHINGTON NJ 95 07-30 0906A EST
PMS SENATOR MIKE GRAVEL, CHAIRMAN

CAPITOL ONE DC

WE URGE YOU TO VOTE FOR PASSAGE OF S3106 DEAUTHORIZATION OF TOCKS ISLAND DAM IS A MUST. SERIOUS QUESTIONS HAVE BEEN RAISED CONCERNING THE SAFETY OF THE DAM. WE DO NOT WANT ANOTHER NEEDLESS DISASTER SUCH AS THE COLLAPSE OF THE TETON DAM. DURING THE LAST 15 YEARS CITIZEN GROUPS HAVE REPEATEDLY OPPOSED THE CONSTRUCTION OF THE TOCKS ISLAND DAM. THEIR EFFORTS MUST NOT BE IN VAIN. DEAUTHORIZE THE TOCKS ISLAND DAM. VOTE FOR PASSAGE OF S3106. PLEASE INCLUDE THIS AS PART OF PRINTED HEARING RECORD ON S3106
HENRY W SMITH ENID R SMITH LENNI LENAPE LEAGUE

09:06 EST

IPMPOMT HSA

Brass Castle, RD 1
Washington, N.J.
07668

Phone: Area Code 201 — 362-6616, or 475-2776

"I BELIEVE"
MARK 9:23

LEONARD RUE ENTERPRISES
Leonard Lee Rue III
AUTHOR — LECTURER — PHOTOGRAPHER
NATURAL HISTORY SUBJECTS
R.D. 2, Box 88a
Blairstown, New Jersey 07825

Gentlemen

as a former resident of Palaquarry Township & as a naturalist, I am deeply concerned about the Tocki Island Dam & the Recreation area.

We do not need the dam nor can we enjoy the luxury of flooding thousands of acres of extremely valuable farmland. We will in the future need that land for food. We should not destroy the historical value of the valley & this is one of the last wild areas in New Jersey.

OUTDOOR WRITERS ASSOCIATION OF AMERICA
O W A A

Dedicated to a greater interest in, and appreciation of nature

I would like to see the dam officially deauthorized & the land be turned back to the states. New Jersey could then link up Stokes State Forest with the Worthington State Forest. Both are well managed & controlled at this time, something the Federal Government has not been able to do with the Tocks Recreation area.

The land could be kept in its near pristine state, the wildlife could be preserved, the farmlands could be utilized, the surrounding communities would not be subject to unlimited growth & the general population could still benefit & enjoy this area.

Please give these proposals your consideration. Thank you.

God be with you. L. L. Rice III

STATEMENT BY HON. MATTHEW F. McHUGH
TO THE SENATE SUBCOMMITTEE ON WATER RESOURCES
ON THE MATTER OF THE DE-AUTHORIZATION
OF THE TOCKS ISLAND DAM
JULY 1976

Mr. Chairman, I support S. 3106 and respectfully urge the Committee to report it favorably to the floor. I am a cosponsor of the companion bill, H.R. 12462, because I believe that the Tocks Island Dam project was never a sound idea. The people in my district, from which the Delaware River emanates, were among the first to rise up in opposition to this project. That sentiment is no less vocal and well founded today. Among the reasons for our opposition are the following:

1. Despite a million dollar study, there has been no substantial proof that this project is necessary to achieve the goals of flood control, water supply, recreation and power production.

2. While each of these objectives is important, alternative solutions exist for each of them, as pointed out for example by the Corps of Engineers' 1974 report on water supply options.

3. Testimony by the experts on both sides of the issue establishes that the proposed dam will create a eutrophied reservoir in place of 40 miles of the scenic Delaware.

4. In computing the cost-benefit ratio for this project, the Corps apparently did not consider the cost of sewage construction to adjoining counties which would be necessitated by the project.

5. There are still serious questions about the useful life of the recreation and water storage components of the proposed dam which, if constructed, could cause irreversible damage to the entire Delaware system.

For these and other reasons, the Governors of the member states of the Delaware River Basin Commission last year voted not to spend any more of the Congressionally appropriated funds for the completion of this project. At the same time, the Governors recommended that Congress continue land acquisition in the project area and more than 75% of such land has already been acquired.

The decision of the Governors was encouraging in that it opposed further development of the dam project. However, at present there is still great uncertainty. There have been years of study and discussion but to date no final resolution of the issue. Even the Corps of Engineers, the developers of the original plan, now believe that de-authorization would be more beneficial than an indefinite deferral of the project, which is the effect of the Governors' action. I believe it would be better to de-authorize on the merits and settle the issue once and for all.

The bill in question does this. Moreover, it not only de-authorizes the project but calls for a transfer of the already acquired property to the National Park Service to be used in a manner consistent with the planning needs of the region. In addition, the bill establishes regulations for future acquisition so that landowners can complete all pending transactions and be justly compensated.

In closing, Mr. Chairman, I want to thank you and your committee for considering this bill and again urge you to act favorably on it. To do so will be an important step in preserving one of our nation's unique resources.

NPCA

STATEMENT BY
NATIONAL PARKS AND CONSERVATION ASSOCIATION
PRESENTED FOR THE RECORD TO
THE WATER RESOURCES SUBCOMMITTEE
OF THE PUBLIC WORKS COMMITTEE
ON S. 3106

July 19, 1976

Mr. Chairman, and other distinguished members of the Committee: We appreciate the invitation to present our views to this committee. NPCA was founded in 1919 by Stephen Mather, first Director of the National Park Service, as an independent, citizen-based, conservation organization to promote and protect the national parks and monuments of the United States. I am presenting this statement on behalf of NPCA's nearly 50,000 members nationwide in strong support of enactment of legislation to terminate the authorization of Tocks Island Reservoir Project, in Pennsylvania, New Jersey, and New York, and to transfer all real property thus far aquired by the Secretary of the Army to the Secretary of the Interior (for development and management by the National Park Service).

The controversy that has grown over the Tocks Island Lake Project (TILP) points to the importance of applying our increased water and land management knowledge toward acceptance of non-dam alternatives, to satisfy flood control, water based recreational development, water supply and power needs. Water resource management of the Delaware River Basin to date has led to the construction of 17 major and minor dams. It is NPCA's view that the referenced legislation presents the opportunity to utilize recreational, flood control, water supply and power need alternatives to dam construction. We feel alternatives are available that are compatible with the desired preservation of a presently clean and free flowing portion of the Delaware River, and its surrounding natural land area.

The published comprehensive TILP environmental impact and alternative studies, produced at the request of Congress, have revealed the dangers inherent in this dam and reservoir choice. These adverse environmental conditions

expected to develope with construction of the Tocks Dam and Reservoir would restrict the originally projected benefits of the project. Environmental dangers recognized are as follows:

1.) Eutrophication of the Tocks Lake with potential for large fish kills and reduction of recreational and water quality benefits.

2.) Fluctuating reservoir water levels would expose numerous acres as bare mud flats with little or no opportunity for the establishment of vegetation. therefore setting the stage for erosion and addition of sediment into Tocks Lake increasing the inevitable high levels of eutrophication.

3.) Destruction of approximately 10,315 acres of wildlife habitat.

4.) Extensive disruption of the oyster and fish industry prominent in the Delaware River due to the water level fluctuations already mentioned.

NPCA feels that much of the projected benefits of the TILP are overshadowed by these established potential losses. With deauthorization of the TILP, 37 miles of free flowing river and natural scenic valley located on the edge of a creeping megalopolis can provide greater land space for more dispersed, natural recreational use, while not overtaxing the water resources of the Delaware River. NPCA favors disperaal of recreational uses along a river bank, such as this portion of the Delaware River, rather than development of a closed lake system with high density usage that inevitablely leads to water quality and environmental degradation.

It is NPCA's strongly held position that the TILP must be deauthorized in the light of the establishment of extensive adverse environmental impact and the increasing need for intelligent use of the knowledge and acceptance of non dam alternatives. These alternatives include the value of flood plain zoning, and management, flood insurance, flood proofing of existing flood plain structures, and the value of developing free flowing river recreational opportunities that preserve the natural environmental experience. All of these alternatives to dam construction are applicable in the Delaware River Basin and reduce the need for dam-reservoir losses.

National Wildlife Federation

1412 16TH ST., N.W., WASHINGTON, D.C. 20036 Phone: 202—797-6800

July 28, 1976

The Honorable Mike Gravel, Chairman
Senate Water Resources Subcommittee
Senate Public Works Committee
4204 Dirksen Senate Office Building
Washington, D.C. 20510

Dear Senator Gravel:

The National Wildlife Federation appreciates the invitation to comment on S. 3106, legislation to deauthorize the Tocks Island Dam and Reservoir. We ask that this letter be entered into the official record.

Ours is a private, nonprofit organization which seeks to attain conservation goals through educational means. Affiliates of the National Wildlife Federation are located in all fifty states, Puerto Rico, Guam and the Virgin Islands. These affiliates, combined with the associate members and other supporters of the Federation, number an estimated three and one-half million persons.

Four years ago, the Federation expressed serious reservations about the consequences of constructing a large multipurpose dam within the Delaware Water Gap National Recreation Area. In March 1972, we wrote to Russell E. Train, then Chairman of the Council on Environmental Quality, conveying the Federation's position that construction of the Tocks Island Dam should not proceed unless and until grave environmental questions involving water quality, fish and wildlife values were satisfactorily resolved.

The passage of four years has done little to ease our misgivings. Rather, the intense scrutiny directed at the project has tended to confirm the likelihood of significant adverse environmental impacts following impoundment of the Delaware. A growing public awareness of these negative impacts is reflected in the erosion of support for the dam among the governors and Congressional delegations of the affected states.

Specifically, three separate studies have reinforced suspicions that the Tocks Reservoir would rapidly become polluted through excess eutrophication. Agricultural effluent has been identified as a major source of organic nutrients entering the upper Delaware basin. Collecting in a stagnant reservoir, these chemicals threaten to initiate the familiar cycle of algal bloom, decomposition and oxygen depletion which would result in the death of fish and the loss of all recreation benefits.

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National Wildlife Federation

The Honorable Mike Gravel July 28, 1976

Physicians and an EPA official have raised the even more disturbing prospect that the reservoir may propagate salmonella bacilli, an organism capable of causing severe gastrointestinal distress in humans. This potential public health hazard has not, to our knowledge, been evaluated by the Corps of Engineers.

Much of the economic justification for Tocks Dam is based on its recreational appeal. Even assuming that eutrophication is controllable, we doubt that the dam would enhance the recreational assets of the region. The Delaware River today attracts a broad community of fishermen, canoeists, hikers, hunters, sightseers and many others. The diversity of private organizations comprising the Save the Delaware Coalition attests to the many ways one can appreciate a free flowing river. In our judgment, the affected stretch of the Delaware is more valuable to more people in its present condition than as a shallow 12,000 acre pool.

An area of special concern to the National Wildlife Federation is the impact of the project on the fish and wildlife resources of the watershed. Impoundment would permanently change the ecological character of the river. Today the Delaware supports a first class stream fishery for smallmouth bass, trout, walleye and shad. Construction of the reservoir would ruin the environment for these game species. Oxygen content would be reduced, and the temperature altered. The Pennsylvania Fish Commission projects extensive losses to migrating shad populations which would be cut off from upstream breeding grounds, disoriented by the lack of current and destroyed by ingestion into the pumped storage turbine intakes. Additionally, the reservoir would inundate 12,000 acres of largely undeveloped land, much of it prime woodland habitat.

The National Wildlife Federation does not oppose public works projects without good cause. We are mindful of the need for accessible recreation, clean drinking water, flood protection and a dependable energy supply. In the case of Tocks Island Dam, however, the rare quality of the resource and the existence of less environmentally destructive alternatives suggest to us that this project is not in the public interest. For this reason, we support the speedy deauthorization of Tocks Island Dam and Reservoir.

Sincerely,

Louis S. Clapper

LOUIS S. CLAPPER
Director of Conservation

cc: NWF Board of Directors and Staff

President Emeritus
M. JEFFRIES PAUL

President
ROBERT E. LICK

Vice President
ANN M. SANDERS

NEW JERSEY BEACH BUGGY ASSN.

MEMBER
N.J. STATE FEDERATION OF SPORTSMENS' CLUBS
UNITED MOBILE SPORTSFISHERMEN INC.
ASSOCIATION OF SURF ANGLING CLUBS
International Game Fish Association

Treasurer
WHITNEY MYERS

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201 Delaware Ave.
Riverside, N.J. 08075

Recording Secretary
SYD SCHWARTZ
1576 Independence Road
Camden, N. J. 08104

STATEMENT FOR COMMITTEE ON PUBLIC WORKS,
U.S. SENATE AND U.S. HOUSE OF REPRESENTATIVES

Re: Tocks Island Dam De-authorization Bills S.3106 (Senate),
and HR 12462 (House of Representatives)

The re-evaluation of the Tocks Island Dam Project mandated by Congress resulted in the recommended de-authorization of that project by the Army Corps of Engineers, Council on Environmental Quality, and the Environmental Protection Agency.

Our Association strongly urges rapid passage of the de-authorization Bills.

Respectfully yours,

Robert E. Lick

Robert E. Lick, President
NJBBA

State Affiliate of National Wildlife Federation

ORGANIZED MAY 24 1935

SUBSIDIARIES:
New Jersey Wildlife Council
Junior Sportsmen of America

STATEMENT FOR U.S. SENATE
PUBLIC HEARING JULY 23, 1976

My name is William Meyer representing the N.J. State Federation of Sportsmen's Clubs, a statewide organization of approximately 700 clubs with a total membership of over 30,000 sportsmen and conservationists. The State Federation has opposed the Tocks Island Dam since its inception. We believe strongly that practical and feasible alternatives to the dam exist for water supply, flood control and power generation and a much greater recreational potential exists around a free-flowing river than a reservoir or lake.

Presently action on the recreation area is in limbo. The National Park Service (NPS) began developing a plan for the Delaware Water Gap National Recreation Area around the free-flowing river. Development of this plan is still in progress, but the NPS lacks prupose and direction under the present conditions. Pending deauthorization, the Tocks Island Dam looms on a distant horizon as a real possibility effectively blocking definitive short and long range planning.

It is high time that action be taken to remove the impediments to further progress and clearly define the direction to follow. Vast amounts of time, effort, and money have been expended in studies of the Tocks Island Dam. The last $1.5M study authorized by Congress and performed by Madigan-Praeger should be the final study regarding construction of the Tocks Island Dam, since this study showed conclusively the folly of the building the dam.

Let us get on with the recreational area project! We urge Congress to deauthorize the dam and transfer all lands acquired to the National Park Service. Give the NPS a green light to move decisively on planning the recreation area around a free-flowing river and future implementation of that plan to make the Delaware Water Gap National Recreation Area a reality.

The Delaware River Basin Commission (DRBC) in its "Proposed Comprehensive Plan Policy Statement for Public Hearing, July 2, 1975 proposes priorities of water use during drought emergencies. "It is proposed that the highest priority shall be given to water needed for human consumption and those water uses associated with public health and safety." We recommend that action be taken as soon as possible to repair water leaks in pipes supplying Delaware River water to private and commercial consumers in New York, since the DRBC places such high priority on this consumptive use. As an alternative to the dam for water supply, steps should be taken to store Delaware River water in the Round Valley reservoir by the use of high-flow skimming. This can be effected by construction of a short pipe line to the Round Valley reservoir at a considerably lower cost than the cost of the Tocks Island Dam.

William Meyer
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New Jersey Public Interest Research Group

32 West Lafayette Street
Trenton, New Jersey 08608

njpirg

(609) 393 7474

STATEMENT IN SUPPORT OF S-3106

The Tocks Island Dam was authorized over a decade ago to provide flood control on the Delaware River after the floods of 1955. In addition to flood control the Tocks Project would provide water, hydroelectric power, and a recreation area. These benifits gained Tocks wide support among government officals and private citizens in the late 50 s and early 60s.

The project also has a price that would have to be paid. This price includes the monetary cost of the dam, estimated by the Army Engineers at four hundred million dollars. The Presidents Council on Environmental Quality has estimated this cost at over one billion dollars. In addition to this cost there is another price that must be paid for Tocks which is not as easy to estimate in monetary terms. This is the value of the irreplaceable losses which will result if the Tocks Island Dam is constructed.

These losses shall include

free flowing Delaware, more than 20,265 acres of wildlife habitat and flooded recreational and historic areas, numerous species of wildlife (see appendix 1), an excellent game fishery and shad run, hundreds of historic sites and structures more than 100 known archaeological sites, including evidence of Paleo-Indian culture as early as 10,000 B.C., a rich variety of vegetation and finally, the quiet rustic character of the entire region, which would be drastically changed by the influx of 10.6 million annual visitors, resulting in the degradation of the area.

These losses caused private citizens, government officials, and local and national environmental, labor, and consumer groups, to take a second look at the benefits that Tocks would provide. This second look revealed that Tocks was neither the most effective nor the most economical means of providing those benefits. It revealed the following:

Flood Control It was found that flood plan management would be far more effective and less costly than Tocks. Less than 22% of the 1955 flood damages occured in areas which Tocks would protect. The dam would protect against 60% of the potential damage but flood plain management would protect against 78% or 18% more. Tocks flood control costs would be $74 million but flood plain management costs would only be $17 million or $57 million less. Moreover, flood plain management is environmentally sound.

Electric Power the dam hydroelectric power with a firm capacity of only 38 M.W. would be minimal and economically unjustified. Although not an authorized purpose of the Tocks Project, a related pump storage facility to provide peaking power is planned

on Kittatinny Ridge which would destroy sections of the Appalachian Trail, Worthington State Park and threaten Sunfish Pond, a pristine glacial lake and registered National Landmark. This system's validity was found to be very questionable because it requires 3 K.W. of power to generate only 2. It was also discovered that even if their system deemed desirable it would function more effectively without the Tocks Reservoir.

RECREATION The recreational benifits of Tocks are based on 10.6 million annual visitors most of whom come to several massive beaches which will be built on the shores of the reservoir. This benefit will never be realized because of the massive mudflats which will occur during the summer months near these beaches and because of the public health problems that would occur if people were allowed to swim in the Tocks Reservoir. The New Jersey Medical Association passed a resolution opposing the Tocks dam because up stream chicken effluent may lead to the spread of communicable diseases at the beaches of the Tocks Reservoir. (see appendix 2).

WATER A study was conducted by the New Jersey Department of Environmental Protection on Water Supply alternative which was based on the U.R.S./ Madigam Praeger median water projection demands for New Jersey between 1950 and 2025. Its conclusion was that a set of alternatives would cost New Jersey $164 million dollars less than taking water from Tocks. This is because the State of New Jersey would have to build two expensive pipelines needed to bring Tocks water to northeastern New Jersey in addition to paying $120 million in water charges to the federal government. (see appendix 3).

The other major water supply need from Tocks is low flow augmentation to protect the Philadelphia and Camden water supplies

from salt intrusion. This was "substantially discounted" by a recent study for the Corps of Engineers. In any event, the study concludes that the Philadelphia intake can be moved upstream and Camden has alternative supplies. (see appendix 4).

In light of the natural and cultural losses that will occur if Tocks is built, the economic infesability of the project when it is compared to the alternatives, and the wide spread public opposition to its construction the New Jersey Public Interest Research Group urges that Congress deauthorize the project immediately so that planning and development of alternatives can be provided to wisely meet the region's future resource needs.

William Constantine

New Jersey PIRG

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APPENDIX 1

Inventory of Animals to be destroyed from the flooding caused by the Tocks Reservoir compiled by Dr. L.M. Rymon, East Stroudsburg State College.

5,000 Whitetailed deer	20,000 Cottontail rabbits
6,5000 Racoons	5,000 Woodchucks
6,000 Possums	5 Bobcats
500 Foxes	1,500 Skunks
2,000 Gray squirrels	4,000 Muskrats
500 Red squirrels	400 Minks
2,500 Red grouse	4 Otters
1,500 Ringneck pheasants	35 Wild turkeys
150 Birds of prey	1,200 Weasels
25,000 Amphibians and reptiles	

The Tocks Island Dam would also destroy the habitat of the following species whose numbers have not been determined: bald eagles of the Minisink (endangered), duck hawks (endangered), flying squirrels(rare), lynx, chipmunks, shrews, voles, black bears, whistling swans, green herons, barred owls, porcupines, tortoises, turtles, tree and grandpappy frogs, matchless toads, rattlers, black snakes, copperheads, garter snakes and grass snakes.

APPENDIX 2

N.J. Medical Society Resolution Against Tocks Dam

RESOLUTION # 39

OPPOSITION TO TOCKS ISLAND DAM PROJECT
Gerald H. Rozan, M.D. Delegate, Passaic County
(Reference Committee "G")

Whereas, the Tocks Island Dam Project on the Delaware River is intended tp provide flood control, water supply, hydroelectric power and recreation of which recreation is the major benefit: and

Whereas, the quality of water in the Tocks Reservoir is vital to recreation and water supply; and

Whereas, the President's Council on Environmental Quality and the Environmental Protection Agency have emphasized concern over the likelihood of accelerated control eutrophication caused by the upstream drainage from poultry and dairy farms and the discharge of inadequately treated sewage gastro-intestinal distress in humans; and

Whereas, the upstream runoff of chicken effluent may also lead to contamination with salmonella baccilli and result in the spread of communicable disease; and

Whereas, downstream quality may also be adversely affected; and

Whereas, the upper Delaware is relatively unpolluted now and eutrophication has not been a problem because the free-flowing river is self-cleansing and flows out to sea; and

Whereas, thereis substantial evidence that each function of the Tocks Island Dam can be accomplished by an alternative measure without construction of a dam and which would not cause significant environmental damage; and

Whereas, the responsible governmental agencies have not adequately studied proposed alternatives; now therefore be it

RESOLVED, that the Medical Society of New Jersey oppose the Tocks Dam Project until such time as all environmental issues have been satisfactorily resolved and be it further

RESOLVED, that the Board of Trustees of the Medical Society of New Jersey be directed to communicate our position to the Governor, the Department of Environmental Protection, and other appropriate agencies.

ADOPTED AS AMENDED BY THE REFERENCE COMMITTEE
1974 House of Delegates

APPENDIX 3

SUMMARY OF STUDY DONE BY N.J. DEPARTMENT OF ENVIRONMENTAL PROTECTION
Summer of 1975

ALTERNATIVE WAYS OF MEETING MOST PROBABLE
LEVELS OF FUTURE DEMAND(URS - MEDIUM GROWTH)

ALTERNATE I: DEVELOP TOCKS PROJECT FIRST

Date	Project	Cost	Yield MGD
1976	Ramapo Riv. Pumping	Neg.	18
1977	RV Outlet P.L.	$15M	80
1979	Two Bridges Skimm.	60	62
1990	Raritan-Passaic P.L.	76	--
1993	Delaware-Raritan P.L.*	60	150
1995	N.J. Share Tocks Is. **	44	--
		$255	310
2022	Raritan-Delaware P.L. *	60	150
	(to meet deficiencies beyond 2022)		25
		$315	485
Gradually	Ground water & reuse	6.5	129
		$321	614

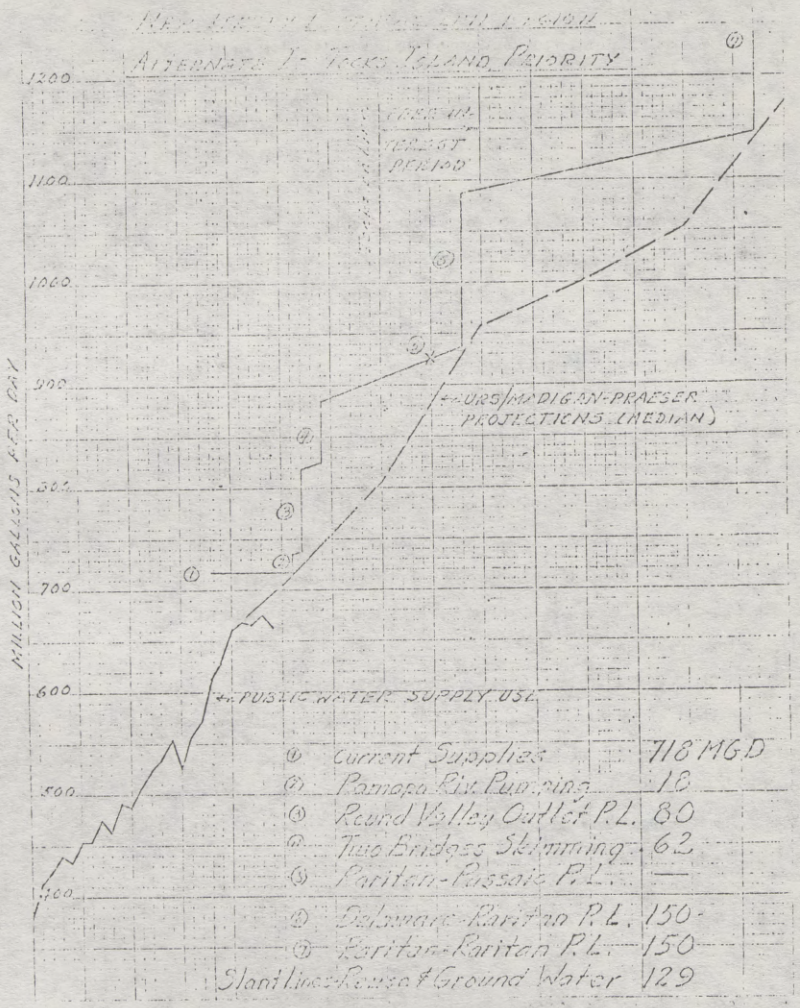
(Unit Costs: $523,000 per million gallons)

ALTERNATE II: DEVELOP INTRASTATE PROJECTS FIRST

Date			
1976	Ramapo Riv. Pumping	Neg.	18
1977	RV Outlet P.L.	$15 M	80
1979	Two Bridges Skimm.	60	62
1990	Raritan-Passaic P.L.	40	--
1993	Confluence Res.	40	50
	N.J. Share Tocks Is. **		
2006	Six Mile Run Res.	30	38
2015	D & R Canal	10	25
2018	Raise Round Valley	5	27
		$200	300
Gradually	Ground water & reuse	6.5	129
		$206.5	429

(Unit Cost: $481,000 per million gallons)

* pipelines needed to bring Tocks water to N.E. N.J.
** 36.4% of nonfederal water supply cost of $120 million equal to annual cost of $1.7 million


ALTERNATE I - TOCKS ISLAND PRIORITY
CRITICAL DEFICIT PERIOD
1200
1100
1000
900
800
700
600
500
400
MILLION GALLONS PER DAY
+-URS/MADIGAN-PRAESER PROJECTIONS (MEDIAN)
+-PUBLIC WATER SUPPLY USE
① Current Supplies 718 MGD
② Pompton Rist Pumping 18
③ Round Valley Outlet P.L. 80
④ Two Bridges Skimming 62
⑤ Raritan-Passaic P.L. —
⑥ Delaware-Raritan P.L. 150
⑦ Raritan-Raritan P.L. 150
Stand Lines-Reuse & Ground Water 129

APPENDIX 4

Salt Water Intrusion and the Philadelphia Water Intake

The salt water intrusion problem at Torresdale involves keeping the chloride concentration in the water within prescribed limits by augmenting the flow of fresh water down the Delaware with water from Tocks during times of low flow. There are two standards for allowable chloride concentration that have been used in studying this problem: The U.S. Department of Health standard of 250 milligrams per liter of water and the Delaware River Basin's more stringent standard of 50 milligrams per liter of water. The URS/Madigan Praeger Tocks study used both standards and conducted an analysis determining how often the levels would be exceeding. Their conclusion was that the Public Health Service standard would be exceeded only once every 500 years and that there was a "good chance" that the DRBC standard would only be exceeded once every 500 years. These figures raise the question will Tocks ever really be needed to protect the intakes? It is also important to realize that the useful life of Tocks is estimated at less than a hundred years; thus, by the time the chloride concentration does exceed the acceptable limits Tocks would not be available to augment the flow.

If the City of Philadelphia still considers saline intrusion a problem even in the light of the highly unlikelihood of its occurrence, there is the alternative of moving the intakes up north to Morrisville. This proposal was studied by a Board of Consulting Engineers to the Philadelphia Water Department in 1946. The plan was never undertaken however because the City Of Philadelphia felt that the problem wasn't serious enough to warrant the move.

TOWNSHIP OF PAHAQUARRY
COUNTY OF WARREN
STAR ROUTE, RIVER ROAD
COLUMBIA, N. J. 07832

Public Hearing Date: July 23, 1976

To: The Senate Public Works
Subcommittee on Water Resources
Room 4200
Dirksen Senate Building
Washington, D. C.

From: Mayor Otto Nehland, Pahaquarry Township, Warren County, New Jersey

Otto Nehland

Dear Chairman:

Because the proposed Tocks Island dam site is located in my township, and I am unable to attend the July 23, 1976 Public Hearing with respect to the Senate Bill to de-authorize the dam, I am submitting the following attached statement, which I would deeply appreciate having read aloud ------ and then made part of the record.

As my statement (which was also read at the recent July 16, 1976 Four County Task Force Meeting) indicates, I strongly recommend that the Delaware Water Gap National Recreational Area also be de-authorized. My statement is herewith attached.

Four County Task Force Meeting (Warren and Sussex of N.J. -- Monroe and Pike of Pa.) -- held at Milford, Pa.

July 16, 1976 -- 2:00 P.M.

Statement by: Mayor Otto Nehland of Pahaquarry Township, Warren County, New Jersey

After twelve years of unkept promises by the federal government, I am firmly convinced that the only way to preserve this last large area of wilderness and valuable historic area here in New Jersey, is to join it with Pahaquarry's Worthington State Forest and Stokes of Sussex County.

I know of no other more deserving area that could be re-acquired with Green Acres funds. Other means of revenue to re-acquire this land from the federal government could be come from entrance and parking fees. I also know of many people who would welcome the opportunity to repurchase or lease back their former properties. In a small way the federal government could even make amends for some of their wrongs by donating part of the land back to New Jersey.

The point I wish to emphasize is ---------- that this is not an impossibility like some people are being led to believe.

Since the federal government's idea is to relocate Pennsylvania's highway 209, which was proposed in the original Tocks Island project, and also to buy the original amount of land that would be required, it would then be very easy for the federal government to suddenly decide to build the dam anyway and destroy the entire valley.

Pennsylvania is very fortunate to have vast areas of wilderness and wildlife areas, whereas New Jersey has only this last large area where wildlife can exist on its own.

For this reason I cannot see why New Jersey should be used as the corridor of entrance to a National project.

I don't believe the surrounding communities here in New Jersey should have to sacrifice their way of life, which they hold so dear, to expanded highways and all the other facilities that would be be required, paid for by higher taxes on the local people and all the other people of the state of New Jersey.

Thank You

Otto Nehland

Otto Nehland, Mayor
Pahaquarry Township

208 Smith St.
E. Stroudsburg, PA 18301
July 19,1976

Dear Senator:

A hearing on the bill to de-authorize Tocks Island Dam is scheduled for July 23, 1976 before the Water Resources subcommittee of Public Works. I feel that section four of this bill, which calls for the relocation of U.S. route 209, should be dropped. If the dam is not to be built, there is absolutely no reason why we should undergo the outrageous expense of building this road. About twenty-three miles of relocation are proposed at a cost in excess of $100 million. Pennsylvania Department of Transportation is expected to meet thirty per cent of this expense but Penn D.O.T. has just cut 87% from its capital construction budget for the next twelve years. With its current financial problems it seems unlikely that Penn D.O.T. will have the funds available.

Highway safety seems to be the rationale for this construction. However it doesn't seem as though the proposed route will be much safer than the present one. Relocation is planned to the west of the present road---an over-the-mountain route requiring approximately thirty-two bridges. There will be problems of fog and ice due to the altitude. Steep grades will boost the fuel consumption of trucks, slowing them down and resulting in even more congestion on the road.

Presently a highway safety program is being conducted in Pennsylvania. Under this program 4.1 miles of route 209 will be treated with anti-skid surfacing, grooving, new guard rails, banking of turns, and improvement of drainage. This is about one fifth of the entire stretch which is under consideration for relocation. On Wednesday, July 14, work began under this Highway Safety Program on route 209.

The major hazard of the road is the number of trucks using it. Truck traffic heading east-west have used route 209 as a connector between Interstate 84 and Interstate 80. However with the completion of I84 this will no longer be necessary; and there are less than four miles to be completed on I84. This alternate route will alleviate truck traffic on 209 and is even one mile shorter.

The most efficient answer to the safety problem, however, and a much more reasonable one in terms of expense and environmental impact, is to declare 209 a scenic highway, prohibiting trucks on it. This way the trucks will use the interstates which were built to handle them.

As a resident I am most frightened by the thought of the environmental and social impact the new road would have on this area. This area contains one of the last vestiges of scenic beauty in the eastern part of this country. The Delaware Water Gap is world famous geographic phenomenon. We are already threatened by greedy land developers pushing "Pocono Vacation Homes" to wealthy urbanites. How much more this road will add to the exploitation of our wilderness! The quality of our environment is already severely threatened with air, water and noise pollution. The relocation of 209 is sure to cause further degradation of our precious natural resources. Hundreds of square miles of forest

and game lands (including the U.S. Forest Service Gifford Pinchot Preserve) which surround the proposed corridor will be adversely affected. The road is designed to cut right thru the George Childs State Park!

With respect to the people of this area and for our natural environment, I hope you will use your influence to encourage the de-authorization of Tocks Island dam without the senseless relocation of U.S. route 209.

Sincerely,

Rose Ann Rotandaro

RUTGERS UNIVERSITY *The State University of New Jersey*

COOK COLLEGE
Department of Environmental Resources
New Brunswick, New Jersey 08903

STATEMENT ON S. 3106 AND H.R. 12462

To: Committee on Public Works, United States Senate and
United States House of Representatives

From: William Goldfarb, Associate Professor of Environmental Law,
Cook College, Rutgers University, New Brunswick, New Jersey

It is essential that the Tocks Island Dam be deauthorized. I will not at this time reiterate the advantages and disadvantages of the project. You will be well aware of them by now. Suffice it to say that in my view the costs of the Tocks Island Dam far outweigh its benefits; and any purported benefits can be achieved in alternative feasible and prudent ways which preclude the irreversible adverse impacts of such a project.

Deauthorization is necessary so that long-term planning can be performed for the area. Pending or extant authorization of a large water resources project like this is a sword of Damocles which inhibits multiple-use planning based on other alternatives. If the dam is not deauthorized, land speculation based upon a possibility of dam construction will continue unabated; and such speculation often becomes a self-fulfilling prophecy. The Tocks area is unique in many ways, and we must plan quickly to retain this uniqueness. All participants in the planning process--planners, government officials, representatives of business and industry, and concerned citizens--must be assured that planning will permanently protect their particular interests, or else their participation in the planning process will be halfhearted at best.

The Congress mandated an expensive study of the project in order to determine whether or not the Tocks Island Dam should be suilt. As a result of that study, the Army Corps of Engineers, the Council on Environmental Quality, and the Environmental Protection Agency called for deauthorization. I also urge deauthorization, so that we can get on with the crucial task of planning for the enhancement of an irreplaceable natural resource.

May 24, 1976

A Statement in Support of Reauthorization of the Tocks Dam

The controversy over the proposed Tocks Island dam is now over fourteen years old. The controversy has not ceased, nor will it cease until the dam is either built or abandoned. Until the issue is firmly decided one way or the other, we can look forward only to continued disagreement and, worse, further delay in planning for the middle Delaware.

Let us therefore try to stand back from the controversy and take a fresh, dispassionate view of the problem.

An obvious feature to emerge from the years of study of Tocks is that, on many points, experts disagree. One expert says that the dam is indispensable for flood protection; another says it isn't. A water resources expert says a Tocks reservoir is vital to the future well-being of northern New Jersey, but another water resources expert disagrees. And so on with power, recreation and almost every other facet of this many-faceted, complex issue.

Why is this? The answer, we submit, is that what we have here is not an engineering or scientific issue but a complicated blend of social, political, economic and environmental concerns. Expert testimony is very necessary---in fact vital--to the process of defining problems and supplying data. But ultimately the citizens and their elected representatives must make the final determination.

Expert opinion on water resources serves as an example. Projected water demands for the region vary over a wide range, depending on assumptions concerning the extent and types of future residential, commercial and industrial growth. Therefore an opinion based on "high growth" leads to the conclusion that a Tocks reservoir is needed, whereas a "low growth" assumption leads to the conclusion that it is not. But determinations of growth levels are social, political, economic and environmental determinations, not scientific or engineering determinations.

Similarly, recent forecasts of power needs by electric utilities support this view. From a stance a few years ago of forecasting rapid, exponential growth in electrical demand, the utilities have steadily reduced their annual estimates as they have more clearly perceived the full dimensions of the energy crisis, the developing shortages of capital, the growing environmental pollution, and the possibilities of energy conservation.

Another key factor to emerge from the Tocks controversy is the seriousness for this region of the problem of what natural scientists call the carrying capacity of an area's resources. Each parcel of land, considered in close interdependency with all surrounding parcels, can support only so many people, autos, highways, stores and factories. And this carrying capacity is reached long before the last open areas are developed and the last park is overused. Beyond some threshold stage of development our resources become overburdened--a very dangerous situation because, as the ecologists put it, "Nature pressed too far provokes revenge."

Friends of the Earth of New Jersey believes that we are fast approaching that threshold, if we have not already reached it. We believe that high-growth assumptions will lead to severe environmental stresses on the region in which the proposed Tocks dam would be situated, and that the dam would in fact intensify such stresses.

The region is already heavily populated. New Jersey is the most densely populated state. As for consequences, clear warning signs can be seen in our present levels of air, water and noise pollution, in our mounting accumulations of solid wastes, and in incidences of varying forms of cancer, the highest in the nation.

Concern for the long-term health and well-being of our people would therefore seem to indicate a shift toward less stressful forms of "progress"--toward projects that result in a restoration of resources and a healing of the land, instead of continued massive disruption, and toward labor-intensive type projects (mass transit, reforestation, home insulation, soil conservation, restoration of central cities and new urban parks) that produce large numbers of long-term jobs instead of the giant earth-moving type projects that produce only a few jobs for a few years.

For these reasons Friends of the Earth of New Jersey believes that the course of wisdom and prudence is to de-authorize the Tocks dam and to get on with the task of planning with, rather than against, the tremendous natural values of the Delaware River.

G. E. Schindler
Acting Chairman
Friends of the Earth - New Jersey
267 South Street
New Providence, N. J. 07974

July 13, 1976

STATEMENT OF POSITION

ON

TOCKS ISLAND

WILLIAM E. SCHLUTER

For the past two decades, no single issue within the district has sparked as much continuous heated debate as the question of the construction of the TOCKS ISLAND project by the U.S. Army Corps of Engineers. Originally conceived as a flood control project in response to a major storm in 1955, the TOCKS ISLAND project grew like Topsy into a massive undertaking involving energy facilities and large scale development and highway construction in one of the last and most beautiful rural areas of New Jersey. This massive proposal moved forward with the quiet sale in 1961 of 715 choice acres of the Worthington State Forest, including Sunfish Pond, to the New Jersey Power & Light Company for pumped storage power development.

As the enormity of the proposed construction plans became evident, thoughtful people and a host of organizations and agencies began expressing serious concerns. Various positions on the project were staked out and a vigorous lobbying effort launched by both pro and con forces. Yet the proposal moved steadily toward construction until Governor William T. Cahill, in a thoughtful position statement in 1972, announced his opposition to the Tocks Island project unless a number of specific steps could be taken to minimize its adverse effects. These concerns related to flood plain control, acceptable sewerage systems, control of upstream pollution from New York and Pennsylvania, adequate land use controls in the surrounding area, substantial Federal aid in construction of safe highways to serve the massive recreation area, a scaled-down

projected recreation plan, and federal payments to local government in lieu of taxes.

As a State Senator, I supported the Cahill position.

These conditions could not be satisfied by the proponents of the project then, and they cannot today. Moreover, additional studies since 1972, convince me that this State does not need a White Elephant, approaching one billion dollars in cost, the beneficiaries of which will be few in number, while all the citizens of Sussex, Warren and Hunterdon counties will bear the most serious adverse environmental effects.

Two decades of public debate is enough. The issue should be put to rest. The Dam component of the Tocks Island project should be "de-authorized"; and those seeking public office owe the voters a forthright expression of their position on this important subject.

Proponents of a Tocks Island Dam--with its 37 mile reservoir--cite the multi-purposes of this project as their rationale---water supply, power, flood control, and recreation. None of these purposes standing alone can justify the enormity of the proposed Dam. Nor can these purposes, taken together, provide any positive justification sufficient to counter the negative environmental and economic effects that will unavoidably result if this project is undertaken. Water can be supplied, power can be provided, floods can be controlled, and adequate recreational facilities can be planned by means considerably less extensive in scope and which will not have such permanently devastating impacts on the 13th Congressional District. Simply stated, Dams (except for those in Idaho) are permanent; once they are built we have no choice but to live with their effects. A Dam at Tocks Island is not our ONLY choice with respect to meeting our needs for water, power, flood control and recreation; if one is built,

however, it will be our LAST!

In seeking the support of the people of our 13th Congressional District, therefore, I offer the following 9-Point Program:

1. I call for Congressional de-authorization of the Dam component of the Tocks Island project. In this respect, I support the strong leadership roles taken by Senator Clifford Case and Congresswoman Millicent Fenwick in sponsoring appropriate legislation.

2. I call upon the power companies which still own most of the land they acquired in 1961, when Governor Meyner was in office, to sell back to the people of New Jersey that portion of the Worthington Tract which is not required for present pumped storage facilities.

3. So that the rights and expectations of private property owners in the region originally intended for the Delaware Water Gap National Recreation Area will be respected and fulfilled, I call upon the federal government to acquire title to those parcels whose owners wish to sell. With respect to those owners of property in this region who wish to remain on their holdings, I call upon the federal government to utilize the options of "life rights," "scenic easements" and "lease back rights," which would permit the greatest degree of flexibility both to property owners and to the federal government. In making fair and just compensation for the property (or the interests in such property) it acquires, the federal government should base its appraisals on the prices of comparable properties located outside the Tocks region. The essential point in this issue of Tocks

76-797 O - 76 - 25

region property rights, is that the private property owners of this region should not be forced to bear the consequences of the failure of the federal government to complete its undertaking. The Tocks project has been pending for so many years that a serious deterioration in land values of the region has already occurred. In implementing its acquisition program the federal government must give first priority to those hardship cases most adversely affected by federal inaction. The retired senior citizen on a fixed income who finds it impossible to meet monthly mortgage payments should be compensated before the real estate speculator whose holdings were purchased for private profit.

4. I call upon the Federal Government to propose and develop these lands into that type of parkland which maximizes the natural scenic, wildlife and historic values native to the area. It is particularly important that the numerous historic homes in this region be preserved and protected. By prohibiting the Dam we will prevent the destruction of these and other historic assets. In designing the parkland and recreational facilities of this region, we must take great care to prevent the deterioration and misuse of these properties. Any recreational facilities in the parkland area --- such as trails, nature study, canoeing, camping --- should be designed for limited use so as to retain all of the natural benefits of a free-flowing river surrounded by woodlands and mountains.

5. I insist on close land management cooperation between Federal, State, County, and Local government so that recreation management will be sensitive and complimentary to local wishes.

6. I call upon Governor Byrne and the Congress to encourage Pennsylvania to adopt appropriate flood plain controls, as New Jersey has done. Indeed, it is the absence of such controls on building and development in the flood plains of Pennsylvania which has made that State most anxious for the Dam component of the Tocks Island project.

7. I also call for expeditious completion of New Jersey's first Water Supply Master Plan together with a thorough analysis of all alternatives including increased development of ground water resources*. The State of New Jersey should provide more technical support in the construction of regional sewerage systems. We can improve our water supply situation if our rivers can be made sufficiently clean.

8. I call upon the federal and State Government to recognize that the primary responsibility for innovative and immaginative land use planning in the Tocks Island Region rests with the citizens, municipalities and counties of this area; and to these ends, I call upon the federal and State Government to support these

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*See Appendix A for additional commentary on water supply alternatives.

necessary local efforts to protect our natural and historical heritage. For these reasons I strongly oppose the decision of the National Park Service not to conduct public hearings on the soon-to-be-released MASTER PLAN for the Tocks Park area, and I urge the National Park Service to reconsider. I also urge the official creation of a CITIZENS ADVISORY COUNCIL to assist the National Park Service in making its decisions with respect to this region.

9. I call upon the federal government to make TOTAL not TOKEN payments in lieu of taxes to those municipalities in the Tocks Island Region which will experience the greatest impacts of the recreational development of this area, including significantly increased costs of providing police, fire, health, and solid waste collection and disposal services. While supporting the "concept" of federal payments incorporated in such pending congressional measures as H.R. 9719, I consider that bill's 75¢ per acre payment limitation to be in the TOKEN category; and, upon election, I will introduce and urge the passage of legislation providing federal payments which adequately reimburse local governments for the public services required of them with respect to the Tocks Island Project.

If elected to the Congress of the United States I will hold to these beliefs and use the influence of my office to see that all are accomplished.

by: William E. Schluter
205 South Main Street
Pennington, N. J. 08534

June 29, 1976

ATTACHMENTS:

Appendix A - Water Supply

Appendix B - Background

Appendix C - Flood Control

APPENDIX - A

POTABLE WATER SOURCES FOR NORTHERN NEW JERSEY

Proponents of the Tocks Island Dam Project claim that its construction is essential to meet the water supply needs of central and northern New Jersey over the next 5 - 8 years, and to provide "insurance" against drought.

The FACT is that one already APPROVED project (Round Valley) and one project for which approval is PENDING (The Passaic Diversion) would meet all reasonable estimates of this region's water supply needs in this period, MAKING THE TOCKS ISLAND DAM UNNECESSARY FOR THIS PURPOSE. These projects are briefly described below:

ROUND VALLEY OUTLET PIPE: When complete, this outlet will provide an additional 80 million gallons of water per day from the Round Valley-Spruce Run Reservoir. This project will serve the Raritan Basin, and a portion is transferable northward, to Newark, through the water supply system operated by the Elizabethtown Water Company.

THE PASSAIC DIVERSION: The New Jersey Water Policy and Supply Council is reviewing an application submitted by the North Jersey District Water Supply Commission and the Hackensack Water Company that would allow high flows on the Passaic River to be pumped to the Wanaque Reservoir operated by the Commission. A portion of this water would be supplied to Bergen County. This total project will make between 70 and 80 million gallons of water per day available for the use of the citizens of this region.

In addition to the very firm proposals described above, the Passaic Valley Water Commission has rights to 25 million gallons of water per day from the Passaic River which it is not using.

Although it would be necessary to expand the water treatment facilities operated by the Passaic Valley Water Commission before this River water could be used, this supply could provide the "insurance" deemed necessary in case of drought.

In the course of preparation of the STATE WATER SUPPLY MASTER PLAN, the following 10 projects will be analyzed. All except the Crab Island Reservoir (which is very unlikely), represent projects that would partially cover the 300 million gallons of water per day that would have come from Tocks. In combination, they not only represent more than 300 million gallons per day, they are closer to areas where the water is actually needed; they offer flexibility with regard to timing; and it is possible that they may have lower unit costs:

-Hudson River Diversion to New Jersey
-Two Bridges Reservoir
-Crab Island Reservoir
-Round Valley Reservoir (raise dikes)
-Six Mile Run Reservoir
-Raritan Confluence Reservoir
-Walkill River Reservoir System
-Passaic River Diversion to Wanaque Reservoir
-Longwood Valley Reservoir
-Washington Valley Reservoir

To list these projects is not at all to suggest that any one in particular, or for that matter ALL of them, should be immediately undertaken. The purpose of the listing above is to indicate that

there are many choices in the matter of providing means to meet the water supply needs of New Jersey, and that the Tocks Island Dam Project is only ONE such choice and, possibly, the worst!

DELAWARE RIVER FLOW

After the water supply argument, the point most often made by proponents of the Tocks Island Dam is that it is essential to protect the Philadelphia water intake and the Camden Well fields from salt water intrusion. In A Comprehensive Study of The Tocks Island Lake Project And Alternatives, the consulting firm of URS/Madigan-Praeger, Inc., stated:

> "Extensive analyses performed in the course of this study indicate that salinity intrusion into the Philadelphia and Camden water systems has a very small probability of occurrence even under conditions of high consumptive use and diversion from the basin which could be expected in 2025."[1]

YET, despite this consultant's report, the FACT is that a significant percentage of the Tocks Island Dam and reservoir was designed .....AND DESIGNED UNNECESSARILY....for the specific purpose of maintaining the flow of the Delaware River to prevent salt water intrusion.

1/ Summary: A Comprehensive Study of the Tocks Island Lake Project And Alternatives, URS/Madigan-Praeger,Inc. and Conklin and Rossant: June, 1975.

APPENDIX - B

BACKGROUND

In arriving at this Statement of Position, I have considered the advice and/ or statements of numerous individuals and organizations, including our present Congresswoman, Helen Meyner, her husband, former Governor Robert Meyner, Governor Byrne, Governor Cahill, Save the Delaware Coalition, New Jersey Conservation Foundation, State AFL-CIO, Sierra Club, Delaware Valley Conservation Association, Delaware River Basin Commission, URS/Madigan-Praeger, Inc., and Conklin and Rossant, authors of A Comprehensive Study of the Tocks Island Lake Project & Alternatives, Jack McCormack Associates, Program Design for the State Water Supply Master Plan prepared by Westwater, Gaston and Dunka, Congresswoman Millicent Fenwick, Water Resources Association of the Delaware River Basin, former State Environmental Quality Director, Richard D. Goodenough, Association of New Jersey Environmental Commissions, former Environmental Protection Commissioner, Richard J. Sullivan, Dr. Richard F. Dowd, author of Government Spending: Benefit-Cost Analysis, and A Realistic Social Discount Rate, and many others.

In addition, the June 11, 1976 statement by Monroe County (Penna.) Commissioner Nancy Shukaitis regarding the geology of the region has been reviewed. This statement raises questions about the stability of the rock foundation upon which the dam would be built.

June 29, 1976

Appendix C -

(Schluter)

Flood Control and the Tocks Island Dam

The proposed Tocks Island Dam will not guarantee the protection of downstream communities against the ravages of flooding.

- Under normal conditions, the reservoir lake will be full for purposes of water supply. Therefore, it will have little freeboard (capacity) for flood storage in the event of a severe storm.
- The volume of a river flood is generally comprised of 50% run-off and 50% tributary water (per USGS). Even if the Tocks dam could check the flow from upstream tributaries, flooding would still take place due to downstream tributaries* and the regular run-off.
- Impoundments on tributaries, combined with comprehensive flood plain zoning on both sides of the river, offer greater protection against severe flooding at significantly lower economic costs.

* Buckhorn Cr, Pequest Rr, Musconetcong Rr, Brodhead Cr, Lehigh Rr, Bushkill Cr.



SIERRA CLUB
324 C Street, S.E.
Washington, D.C. 20003
(202) 547-1144

STATEMENT OF HOPE COBB FOR THE SIERRA CLUB, NEW JERSEY CHAPTER
ON S.3106, A BILL TO DEAUTHORIZE THE TOCKS ISLAND RESERVOIR PROJECT
BEFORE THE
WATER RESOURCES SUBCOMMITTEE OF
THE SENATE PUBLIC WORKS COMMITTEE
JULY 26, 1976

We are concentrating in our testimony upon water supply, since this is the issue of over-riding concern to New Jersey in the decision of whether or not to de-authorize the Tocks Island dam.

First, let us note that when the dam was first authorized in 1962 water supply was by no means its primary purpose. It was intended chiefly for flood control, and the alleged need of water supply for New Jersey did not arise until much later.

The Madigan-Praeger study, completed last July for the Corps of Engineers at a cost of $1.5 million, listed a number of possible alternatives. Among those meriting serious attention were: the conjunctive use of ground and surface water; water conservation, including rationing during drought emergencies and water pricing; and the use of high-flow skimming at Round Valley reservoir.

Acting partly on these considerations and partly under advice from its own consultants, the New Jersey Department of Environmental Protection (DEP) has drawn up a State Water Supply Master Plan which, when developed, will be the most comprehensive of any in the country.

The 30-month study, according to a statement made by Dr. Glenn Paulson, assistant DEP Commissioner, at a League of Women Voters' workshop at Sewell, N.J. on April 29th, "will shape the structure for supplying the state's water needs for the next half century." At the same workshop, Dr. Paulson said that Governor Byrne contends New Jersey's water needs can be met with less environmentally damaging projects and that the state's master plan is designed to point the way to this goal. (N.Y. Times new article, April 30, 1976)

In addition to those alternatives suggested by the Madigan-Praeger study, the state's water supply master plan mandates the following analyses, among others: drought standards for designing reservoirs, drought and emergency contingency plans, rehabilitation, upgrading or construction of inter-connections and transmissions facilities of the more than 100 separate water supply systems for northeastern New Jersey (where there is much conflict and duplication), use of the Delaware-Raritan canal for base load purposes to increase its average yearly yield, groundwater recharge systems for treated wastewater effluents, and industrial re-use of water recovered from wastewater treatment plants.

Most important of all, perhaps, is that this study is to create a clear process for water supply decision-making in New Jersey. This will replace the past system, or lack of system, which consisted of muddling along between crises and making a series of unrelated decisions on an ad hoc basis.

Behind this master plan lies the unspoken assumption that water can no longer be treated as a free economic good. Just as it is now

accepted that polluters of a natural resource must pay for their pollution it is expected that consumers of water will have to pay for their consumption. The Madigan-Praeger study regards water pricing as a useful policy to bring about wider pricing as a useful policy to bring about wider public awareness of the need for water conservation during all periods, and not just as an emergency measure.

For example, the Madigan-Praeger study states that it may be assumed that if 50% of all new construction were equipped with water conserving devices, 20 gallons of water per capita per day would be saved. (X11-5) Also, this is a cost free alternative to conventional water supply methods, since such devices, such as water conserving toilets and shower heads, are no more expensive than conventional fixtures.

A study (DeRooy, J. "Price Responsiveness of the Industrial Demand for Water," Water Resources Research, 10, 3 (June 1974), quoted in Madigan-Praeger, X11-23) used survey data for a number of chemical manufacturing plants in northern New Jersey during 1965 to conclude that firms adjust their water demand in response to even small changes in unit cost. The study concluded that:

> "....as the cost of intake becomes greater, substitutes become more economical. The fact that many firms do not presently recirculate effluent indicates either that water is still very cheap or that industrial users (especially smaller ones) are not fully aware of the savings that could be realized ...."

Another positive result of a pricing policy would be to encourage increased industrial recirculation or other technological improvements for industrial water use. Current recirculation rates for the major water-using industries in the Delaware River Basin region are generally below national averages. Concern lest water pricing policies drive

industry to another region would be, we feel, unjustified, since industrial locations, even for major water-using industries, are to be chosen more for reasons of transportation, markets, and labor costs (X11-31). The Delaware River Basin Commission itself has implemented a pricing policy based on consumptive withdrawals in the Delaware Basin.

Conservation measures, in contrast to projects for increasing water supply, have the added advantage of avoiding the destructive chain-reaction effect of creating one problem by the solution of another. For example, increased water diversions usually add to the burden of already over-burdened sewer systems. The expansion of the sewer systems creates extra expense and stimulates unneeded growth. We are beginning to see the true meaning of "progress" as the adaptation of human demands to the finite natural resources, rather than in the endless growth of supplies of these natural resources to meet arbitarily given demands.

Thus far the evidence from the State Water Supply Master Plan indicates that it will be possible for New Jersey to manage its water resources so as to take care of all our needs without the Tocks Island dam. The uses being put forward for Tocks water at present are quite different from those in the original planning document H.D. 522. This is especially true of the water supply function, but it applies also to recreation, flood control and power. The planning of the 1950's is obsolete now and will be more so in the future. A complete reanalysis and redesign of the project would be necessary before any consideration in the future.

The effects of delaying the decision on the Tocks Island dam will

be disastrous, both for the impacted communities who have been unable to plan for their future, and for the Delaware Water Gap National Recreation Area. Not only have no funds been released by the Office of Management and the Budget to enable planning to be done for the park, but no funds to maintain it properly have been supplied. Its current deterioration is only too obvious, as is being shown in other testimony.

Let's de-authorize the Tocks Island dam now. At long last, let's end the uncertainty. Let's end the disruption of communities and of people's lives brought on by this ill-conceived project. And let's get on with the job of providing a sensibly planned natural park, so that the people of the region can settle down and live their lives in peace.

SIERRA CLUB, PENNSYLVANIA CHAPTER

Before the
United States Senate
Committee on Public Works
Subcommittee on Water Resources

Hearings Monday, July 26, 1976
on S. 3106 - To terminate authorization
for the Tocks Island Reservoir Project

Mr. Chairman, Committee members, staff, ladies and gentlemen, after having testified before various bodies of Congress against the Tocks Island Dam Project, it is indeed a pleasure to appear before you on behalf of the Pennsylvania Chapter of the Sierra Club to urge the passage of S. 3106 deauthorizing this ill-conceived project.

As a result of the extraordinary flood situation in the Delaware River due to hurricanes Connie and Diane which arrived in close proximity in August, 1955, Congress authorized the building of the Tocks Island Dam, which was also intended to supply hydroelectric power and to provide for water supply.

In 1965, the Delaware Water Gap National Recreation Area was added, encompassing more than 72,000 acres in both New Jersey and Pennsylvania.

At first the Sierra Club, like many members of Congress, supported this project as providing needed recreation for the nation, as a whole, and for the surrounding highly populated region. However, as the multitudinous studies done for the Corps of Engineers began to raise questions as to its feasibility, we began to take a second look at the project.

It became apparent that there were feasible alternatives to all of the project purposes and that the costs of the project outweighed the benefits. As more and more questions continued to remain unanswered, Congress authorized a $1.5 million comprehensive study of this project in August, 1974 under the supervision of the Army Corps of Engineers with the cooperation of the Delaware River Basin Commission. Congress also directed that the study be completed and a definitive recommendation be made within twelve months. That study, done by the consultants, URS Madigan/Praeger, was completed in July, 1975. Shortly thereafter, at a meeting of the Delaware River Basin Commission on July 31, 1975, the Governors

of Delaware, New Jersey and New York voted against construction funding based upon the consultants' findings with only Governor Shapp of Pennsylvania dissenting.

Both the President's Council on Environmental Quality and the Environmental Protection Agency have recommended deauthorization and on September 24, 1975, Lt. Gen. W. C. Gribble, Jr., Chief of Engineers, in a letter to both Senator Stennis and Representative Evins, recommended deauthorization.

We would urge that these recommendations be implemented as soon as possible so that local and regional planning, including alternative planning, for flood plain management, water supply, recreation and power can effectively proceed which, until the Tocks Island Dam project is deauthorized, can only be tentative.

Both short and long-range problems respecting land use controls, zoning, housing, industrial development, unemployment, sewage facilities, medical institutions, correctional institutions, fire protection, law enforcement, highway programs and budgetary planning cannot effectively be addressed until this question is resolved.

The URS Madigan/Praeger study established the existence of feasible alternatives for each of the intended functions of the Tocks Project. For instance, high-flow skimming techniques can fulfill New Jersey's projected water needs, low-flow augmentation is not required for the Philadelphia-Camden area which has an ample quantity, but the key is quality and reuse. The probability of salinity intrusion into the Philadelphia water supply was deemed so remote by the consultants as to be substantially discounted. However, even this remote problem, according to the study, could be resolved by moving the Philadelphia intakes upstream outside of the tidal reach.

On the assumption of moderate growth, the Tocks project would not be required to fulfill projected water needs for the region.

Conventional hydroelectric power benefits derived from the project have never been more than minimal resulting in only a firm capacity of 38 MW.

The Kittatiny pump storage facility, not part of the Tocks project, would have serious damaging effects on aquatic life and recreation resulting from drawdowns, fluctuating water levels, turbidity, temperature changes and exposed mud flats.

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However, these adverse impacts would be avoided by the use of feasible alternatives such as combined cycle turbines and peak load pricing.

Flood plain management would provide greater long term protection at much less cost than Tocks and is environmentally sound. Tocks would not protect areas downstream from local storms and, in fact, 78% of the damage in the 1955 storms were not in areas which Tocks would have protected.

The park planned without the dam would preserve and utilize the unique clean free flowing Delaware, more than 20,565 acres of wildlife habitat and prime recreational lowlands. Over 105 archeological sites and historic areas would enrich the educational experience of the visitor. The land preserved would continue to attract numerous species of wildlife, provide an excellent game fishery and shad run and preserve the quiet rustic atmosphere characteristic of the Minisink region.

Activities unique to a river system can be enjoyed, such as river canoeing, rafting, gravity ferries, barges, river swimming and rowing, and many other activities. The interesting geological formations seen only from the river can be enjoyed by river users and many fragile, but unique areas can be set aside for serious study. Archaeological digs can be enjoyed both as a spectator experience and from actual participation in various aspects of a dig.

In the National Park Service's, "A Natural System Plan for Delaware Water Gap National Recreation Area", on page 2, second paragraph, the author states.

"And without concentration upon large-scale broadwater activities, the millions of urbanites who would enjoy this valley of outdoor pleasure may well discover a far wider range of recreational pursuits--pastimes which foster awareness and understanding of the natural world and which provide satisfaction of high quality." "Moreover, a 'natural systems' NRA is justifiably important when it offers various outdoor experiences which can be educational as well as pleasurable; build skills and hone perceptions, and which offer a refreshing change of pace from ordinary activity patterns."

The Pennsylvania Chapter of the Sierra Club also recognizes the need for the relocation of Route 209 as proposed in S. 3106. As a through highway, Route 209 is incompatible with

the park. In addition, excessive speeds, lack of adequate traffic controls and enforcement, heavy truck traffic and unexpected curves create a serious safety problem resulting in 40-50 deaths and 250 injuries annually.

For all of the above reasons, the Pennsylvania Chapter of the Sierra Club urges the immediate passage of S. 3106.

Kathryn Gomory

SIERRA CLUB
POTOMAC CHAPTER

STATEMENT IN SUPPORT OF PROPOSED S. 3106

TO DEAUTHORIZE THE TOCKS ISLAND RESERVOIR PROJECT

(For submittal to Subcommittee on Water Resources, Committee on Public Works, U. S. Senate, at Public Hearing, 23 July 1976, Room 4200, Dirksen Senate Office Building.)

My name is Walter Wells. I am Vice Chairman of the Potomac Chapter, Sierra Club and am presenting this statement on its behalf, and request that it be made part of the hearing record. The Potomac Chapter membership includes residents of the State of Delaware, a member of the Delaware River Basin Commission. Hence this Chapter has a direct interest in this bill.

The Tocks Island Reservoir Project has been adequately identified as a massive unnecessary intrusion into the Delaware River Valley. Its objectives have become either irrelevant or obsolete and their achievement by this means have become unacceptably destructive and costly. The project would provide no significant level of flood control. The project would provide a body of water of dubious quality for either recreational or drinking purposes. Recreational possibilities of the Delaware River Valley would be destroyed rather than enhanced by this project.

To assure the preservation of the natural and historic attributes of this valley and its free-flowing river, acquired lands should be tranaferred as expeditiously as possible to the Department of the Interior for administration as part of the Delaware Water Gap National Recreation Area.

We strongly urge the prompt enactment of S.3106 to terminate the authorization of the Tocks Island Reservoir Project.

Walter Wells

Walter Wells, Vice Chairman
Potomac Chapter, Sierra Club
3606 Veazey St., NW, Washington, D. C. 20008

...To explore, enjoy, and protect the nation's scenic resources...

An Organization
Devoted To Preserving
The Life and Industries
Of The Maurice River

SORE

— SAVE OUR RIVER ENVIRONMENT —

BOX 201
MAURICETOWN, N. J.
08329

PHONE: (609) 785-2945
785-0510

July 21, 1976

The Hon. Mike Gravel
Senate Water Resources Subcommittee
4200 Dirksen Building
Washington, D.C. 20510

Dear Senator Gravel:

I am writing with reference to the upcoming hearings before the Senate Water Resources Subcommittee on the Tocks Island dam project. Save Our River Environment is an organization which seeks to protect the environment of the Maurice River watershed and adjoining areas of Delaware Bay in southern New Jersey. A prime concern of our organization is the preservation of the substantial fish and shellfish industry of the Maurice River Cove section of Delaware Bay. This industry is the major source of employment in southern Cumberland County, New Jersey.

The oyster, crab, clam and fish industries of Delaware Bay are all dependent on continuous, large freshwater flows from the Delaware River estuary. Records maintained by the New Jersey Department of Environmental Protection and the Rutgers University Oyster Research Laboratory since 1904 establish a direct correlation between periods of drought in the upper Delaware River estuary and reduced fish and shellfish harvests in Delaware Bay.

Though the proposed Tocks Island Project might temporarily augment low river flows, it would not increase the total water supply in the Delaware River basin. On the contrary some projections of future depletive losses due to power plant cooling requirements indicate that they could use approximately a quarter of the low flow discharge at Trenton. During periods of extended drought the depletive use projected for the future power plants would permit further up-estuary intrusion of salt water. The Tocks Island Dam would thus adversely affect the Delaware Bay fish and shellfish industry because it would be used to supply fresh water for power plant depletive use.

The past several years of large Delaware River freshwater flows have brought the Delaware Bay oyster seed beds to the best recorded condition in fifty years. The crabbing and fishing in the Maurice River Cove section of Delaware Bay has never before reached the peaks attained during the 1975 season. Serious losses will occur to fish and shellfish resources if the freshwater flow responsible for this productivity is curtailed. For this reason our organization strongly recommends deauthorization of the Tocks Island Project.

Sincerely,

Daniel O'Connor
President

County of Sussex

BOARD OF CHOSEN FREEHOLDERS
Joseph Kesio, Director
Edmund J. Zukowski
John C. Whitesell
Louise Childs, Clerk
Donald E. Welcome, County Administrator

County Administration Building
39 High Street, Newton, New Jersey 07860
Mailing Address: P. O. Box 69
Newton, New Jersey 07860
Telephone (201) 383-1023

July 26, 1976

Ms. A. Garrabrant
Sub-committee on Water Resources
U.S. Senate Public Works Committee
Washington, D.C. 20010

Dear Ms. Garrabrant:

This is to be submitted to the Committee. In numerous previous testimonies before the State of New Jersey, the Delaware River Basin Commission, the House Public Works Appropriations Committee, as well as the U.S. Senate counterpart, the County of Sussex, New Jersey, again wants to state its concern and objection to the Tocks Island Dam Construction Project.

It takes a firm position in opposition to the project for the following reasons: 1) Loss of valuable productive farmlands; 2) Loss of irreplaceable historic archeological and architecturally significant sites, structures and artifacts; 3) Loss of critical fauna and flora habitat, and wildlife vegetation associated with that habitat; 4) Loss of privately owned properties proposed for inundation; 5) Loss of recreation capacity and variety provided by the Upper Delaware River in its natural state; 6) Loss of property tax revenues to Municipal and County governments; 7) Tremendous burdens placed upon local services (roads, hospitals, land fills, etc.) by visitation over and above those proposed for the Delaware Water Gap National Recreation Area.

The above points have not been satisfactorily addressed, and they are only a few among other concerns. The final two aspects of the impact upon Sussex County are the larger losses of tax revenues as a result of federal land ownership and the escalating demands placed upon the services provided by the County and the principalities in the taking area. As of 1973, the Townships of Walpack, Sandyston, and Montague showed a loss in tax revenues of $350,000. while payment from the Federal Government has amounted

to less than one quarter this figure. At the same time, existing services have had to be maintained and insufficient policing of the area has permitted extensive vandalism and degradation.

Very much documentation has been presented to date on the behalf of the County to include numerous Tocks Island Regional Advisory Council, State, Federal, and private interests. Representing the County and its constituents, the Board of Chosen Freeholders desires to impress on all of you the plight of one of the immediately effected areas, and that the only solution is to de-authorize the project.

Sincerely yours,

Joseph Keslo
Director

JK/rhc
encl.

Senator Mike Gravel, Chairman
Water Resources Subcommittee
Committee on Public Works
United States Senate
4204 Dirksen Building
Washington, D. C. 20510

July 19, 1976
Milford, Pike County
Pennsylvania

REGISTERED MAIL, RRR

Subject: S-3106 (Hearing on proposed deauthorization of Tocks Island Project - July 23 and 26, 1976).

Dear Senator Gravel:

I requested the right to testify during the hearing. Ann Garrabrant of your staff, advised that the foregoing must be submitted in writing and will be considered fully as if there had been time and room for me to have been heard in person.

I represent Margaret A. and Lewis B. Travis, my parents, who own fifty acres of land, with residence, in the proposed Tocks Island Recreation area. They don't want to sell their property and want to keep it as their domicile. They are shocked at the threat of condemnation by the government.

My brother, Donald H. Travis owns land adjacent to my parent's land in Pennsylvania, also in the recreation area.

Petitioner's land is in the Northern portion of the Tocks Island recreation area adjacent to the town of Milford in Pennsylvania. The government has not filed a condemnation complaint yet against the property but they have given notification of the intention to do so.

The Department of Justice filed a condemnation complaint against my brother's home on November 10, 1975. He answered it - challenging the legality of condemnation. He then filed a motion for summary judgement - urging that condemnation is not authorized under the law because enactment by Congress of the law which created the Recreation area had as its touchstone, the Tocks Island Dam and Reservoir. Take away the Dam & Reservoir and you also eliminate the lawfulness of the condemnation of land for the recreation area. Since the Dam is to be deauthorized, the Recreation area should be cancelled. Any new act of Congress authorizing further acquisition of land for the recreation area would be legislation to cover up a mistake. That is, the wrongful, jump the gun - acquisition of private lands by the government for a Dam - Reservoir recreation area - which will finally be deauthorized. My brother's case is pending in U. S. District Court at Scranton, Pennsylvania. It has never been set for hearing.

The Government has about 70% of the land for the planned Recreation area. What shall they do with it?

Under the law, since there was originally no thought of deauthorization, the U. S. Govt. had a valid right of condemnation. As it turned out, however, the taking became a mistake. It might be best, therefore, for the land to be returned to the original owners. Yet, possibly nothing can be done about already acquired land.

After deauthorization the law on the issues which will control our problem will be in favor of the landowner who wishes to

keep his land. Accordingly, if the Tocks Dam is De-authorized, Petitioner will fight condemnation in the courts and expect to prevail.

Petitioner asks that before Congress goes forward and puts the stamp of approval on the Recreation area after deauthorizing the dam, their own attorneys be consulted to evaluate this position which if valid, should disuade the Congress from going ahead with the Recreation area.

Petitioner asks you to save it the cost of litigation by eliminating further property acquisition for the Recreation area. If the Dam is deauthorized, we have a winning cause. Why not save the petitioner the expense of proving it in Federal Court?

I also urge that all land which has not yet been finally acquired and paid for, including land subject to litigation on the issue of the legality of condemnation, be allowed to remain the private property of the individual title holders. Under this principal, the mere filing of a notice of condemnation would not vest ownership in the Government when the owner has answered the complaint and has challenged the government's right to condemnation and the case has not been heard by the courts.

Rights of owners of Real Property in the United States of America are important to freedom loving American people -.

These rights must yield to the right of Eminent Domain when it becomes necessary for the Federal Government to take property for an important public reason. However, there must be a valid purpose and an act of Congress must authorize the project which the land will serve. When this act of Congress is cancelled, the property of private persons must not be further taken in support thereof. To do so would compound a mistake and be unjust.

Respectfully Submitted

MARGARET A & LEWIS B TRAVIS

By: Kenneth L Travis
Kenneth L Travis
Fairfax County, Virginia

Attached: Power of Attorney

KLT:RST

AFFIDAVIT

POWER OF ATTORNEY

We the undersigned hereby appoint our son, Kenneth L Travis of Fairfax County, Virginia as our Attorney to represent us in all dealing with the Federal Government in connection with our Real Property located in the "so called" Tocks Island Recreation area, adjacent to the Deleware River in Pike County, Pennsylvania. He shall have the power to represent us in all Federal Courts and before all Federal Agencies and to do anything that we are authorized to do ourselves in order to retain our interest in the real property and to oppose the taking by the Federal Government.

Margaret A. Travis
Margaret A Travis

Lewis B Travis
Lewis B Travis

Subscribed and Sworn To
Before Me This 5th Day
of July, 1976

Donald H. Travis

DONALD H. TRAVIS, NOTARY PUBLIC
DINGMAN TOWNSHIP, PIKE COUNTY
MY COMMISSION EXPIRES AUG. 29, 1977
Member, Pennsylvania Association of Notaries

July 23, 1976

Testimony of James J. Brown, Eastern Regional Director, Trout Unlimited Before the United States Senate, Public Works Committee, Concerning the De-Authorization of the Corps of Engineers Tocks Island Project.

Mr. Chairman, and members of the committee, my name is James J. Brown, Eastern Regional Director of Trout Unlimited. On behalf of the international membership of our organization, I thank you for this opportunity to present to you, our thoughts with regard to the de-authorization of the Tocks Island project.

Because Trout Unlimited has dedicated itself to the preservation and enhancement of this nation's cold-water resources, and the restoration of those resources where possible, I come before you today to urge you to move, without delay, the legislation to de-authorize Tocks Island through the appropriate processes to insure that one of this country's great rivers will not be destroyed.

Testimony will be presented by those that favor construction for what they consider good and valid reasons. However, the argument of economic impact, the need for electric power, etc., are extremely weak points when weighed against other, more lasting, factors. Can we allow the degradation of a mighty river system for the sake of a few jobs; can we block the ages-old spawning migrations of anadromous fish for a few kilowatts of power; can we destroy the quality of a water supply when those supplies are dangerously on the ebb?

Mr. Chairman, the answer to the questions I have just posed are in the hands of this committee. You have an unique opportunity before you to respond to the wishes of the people. Three state governors, in an almost unprecedented display of solidarity, have banded together to request the halt of an unneeded, ill-conceived, project. A representative cross-section of the voting public will be heard today supporting the Bill to de-authorize Tocks Island.

The language of the Bill is clear; the benefits that will come from adoption of the legislation are far-reaching, diversified, and will impact the public for generations to come, much as other National Parks and Recreational areas presently do. Any benefits that could accrue from construction of the Tocks project are short-term, of narrow scope, and will positively impact few people.

Justification for the project has received the broad-brush treatment, as do an inordinate number of similar projects proposed by government construction agencies. In this case, flood control, water supply, hydroelectric power, and recreation are the excuses, deflated 1962 construction cost estimates are the vehicle to convince everyone that it isn't an expensive project, and lastly, the unrealistic discount rate of some three plus percent to arrive at acceptable cost/benefit ratios is employed to outline that we are "getting more than we bargained for" if I may borrow a phrase from recent national advertising of a car manufacturer.

It has long been a mystery to me, how flood control devices and hydro-electric generating facilities can be considered in the same breath. If indeed, flood control is desired and needed, then the necessary storage of water to generate electricity then becomes a defeating purpose to flood control.

Water supplies for the flood plain areas of New Jersey and Delaware are being seriously threatened, make no mistake about that, and is a problem deserving of more action than has previously been accorded it. The potential of conducting water from the Hudson River is one alternative that has been expored. However, water taken from an impoundment that admittedly will be rapidly attacked by a high rate of eutrophication will be hardly potable without expensive pre-treatment - an eventuality not even addressed in reasoning for the project.

Finally, the recreation benefits in the original proposal were based on 10 and a half million visitations annually, and since then have been scaled down to about 4 million. In order to accommodate that number of people, an intricate, highly expensive roadway system would have to be built that would forever alter the character of the area. In addition, the added burden of expanded sewage and solid waste treatment facilities, medical and safety facilities, and other services will be laid at the feet of the taxpayer. These additional costs have not been included in the calculations of benefits. Presently, there is great deal of recreational use in the area, by those that enjoy canoeing, camping, fishing, and sight-seeing. A comprehensive development of those treasures makes infinitely more sense than total destruction of some 13,000 acres of land and water.

In conclusion, Mr. Chairman, and members of the committee, I strongly urge you to hearken to the sentiments of the concerned citizens that come before you today, and make Tocks Island just a bad dream that has passed before our conscious into oblivion.

Statement of James B. Harper of Rosemont, Montgomery County, Pennsylvania, representing the Southeastern Pennsylvania Chapter of Trout Unlimited to the Subcommittee on Water Resources of the Committee on Public Works, United States Senate, July 26, 1976, relative to S.3106 which deauthorizes the Tocks Island Dam and Reservoir Project.

This statement is in support of S.3106, the subject of the hearings now being conducted by your committee on July 23 and 26, 1976. I regret being denied the opportunity to bring the several points raised herein to your personal attention. Buried in the voluminous record, they will probably be overlooked.

We support S.3106 to deauthorize the Tocks Island Dam and to provide for an orderly preservation of the cultural and natural treasures now existant in this uniquely beautiful thirty-seven mile stretch of the Delaware River Valley.

Many of today's would-be witnesses have, over the years, testified at numerous hearings before legislative committes, bureaus or executive commissions and so nearly everything which can be said has already been said, and should be available as a matter of record to any who wish to seriously study the probable results if the project is carried out. The URS/Matigan study, authorized by Congress, was in nearly 100% agreement with the positions of those who have testified against the project as a major environmental loss. However, the study avoided putting a dollar value on that destroyed.

In the area of fishing and other environmentally related recreation URS/Matigan and the testimony of knowledgeable persons such as Robert Bielo, formerly executive director of the Pennsylvania Fish Commission; Richard Marshall, now chief biologist of the Commission; and many veteran small mouth bass, shad and trout fishermen; biologists; ornithologists; canoeists and other long time users of the area, were in agreement that a recreational asset of great present value and even greater potential was to be destroyed and that offered in exchange was of much lower quality and uncertain potential. Realistically the net recreational increment is a minus figure. At one point in promotion of the project the value assigned to recreation in the cost/benefit tabulation was 40%. I would like to point out that if funds were provided for a real cleanup of the rivers' pollution in the Philadelphia, Trenton, Camden and Marcus Hook areas water oriented recreation equivalent to several Tocks and more available to more people would be provided at less cost. Public support for the project was promoted on the basis of a recreational bonanza and flood control. URS/Matigan assigned a minor part of cost/benefit ratio to flood control and it pointed out that other measures of greater

flood damage protection were avialable at less cost. It failed to stress that structural flood protection always encourages more development subject to flood damage when the structures fail as they so frequently do. Witness Rapid City and Teton Dam to name just two of many. Mrs. Shukaitis, testifying here today, has attached to today's statement a discussion of the relationship of the Teton Dam failure to the dam proposed for Tocks, and I recommend its study by this committee.

With recreation and flood control contributions seen to be minimal or perhaps destructive, the two remaining purposes of the project are for power production and increased industrial and domestic water supply. URS/Matigan declared that each could be accomplished by alternate means, although the alternatives also involve some environmental damage and uncertain costs. The need cited for additional water and power supply in the presently overcrowded Delaware Valley Megopolis is to water and nourish its further growth. The present fiscal, social, health, welfare, and crime problems, those of solid waste and sewage disposal, transportation, communications and simply elbow room, are a very clear signal that we have already reached the safe limit of our environmental resources to support an ever-increasing demand. Mr. Beito's statement of April 2, 1971 to the Hon. Frank Thompson, holding hearings on appropriation legislation for Tock's Island, predicted that increased volume of water to be made available for industrial and municipal use would create a vast array of new environmental confrontations and would probably result in degradation of the quality of life then available in the area. He said in part, "simply to provide more water so that a private company can produce more power and thus encourage more industry and more residential growth in an already overcrowded corner of the nation seems a topic one might want to consider further as to its soundness."

We believe that such a course is dangerously unsound, and that its purchase at this immense cost in dollars and destruction is totally irresponsible. I quote URS/Matigan: "The scenic qualities of the Delaware River in their present natural condition bring delight to the majority of present Delaware Water Gap National Recreation Area visitors. The image of the free flowing river in a visually coherent river valley provides DWGNRA visitors with a sense of the inherent order and beauty of undisturbed natural systems."

The destruction of both the tangible and intangible, this entire community of mankind and nature, rich in natural beauty, history and productiveness, a product of the centuries, to be gone forever, only to buy a little time before the resource consumptive trends fostered by the project catch up and we are just where we started and at tremendous cost. Who but the last desperate survivor of catastrophe would consider breaking up an authentic Chippendale chair or high boy, a Rittenhouse clock or a Stradavarius violin for firewood to buy an hour's warmth?

Pending deauthorization, the future of the region and DWGNRA remains in limbo and it is impractical to plan constructively for the preservation and use of this valuable asset.

We ask you to consider well and report S. 3106 to the floor of the Senate with a favorable recommendation.

James B. Harper
Southeastern Pennsylvania
Chapter of Trout Unlimited

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For Record Tocks Island

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SENATOR MIKE GRAVEL
PUBLIC WORKS COMMITTEE ON WATER RESOURCES
ROOM 4200 SENATE OFFICE BLDG
WASHINGTON DC 20510

STATEMENT FOR INCLUSION IN RECORD OF JULY 28 HEARING OUR ORGANIZATION OPPONENTS OF THE FOOTHILL FREEWAY COMPOSED OF ARBUT 2500 CONCERNED CITIZENS OF THIS AREA STRONGLY URGES YOU TO DO ALL IN YOUR POWER TO DEAUTHORIZE THE TOCKS ISLAND DAM. THE COLLAPSE OF THE TETON DAM SHOULD BE A WARNING OF THE MUCH GREATER DISASTER IF THE MUCH LARGER TOCK ISLAND DAM SHOULD FAIL AND IN ANY CASE SUCH A DAM WOULD NOT HAVE LESSENED THE LOSS OF LIFE IN THE 1955 FLOODS IN THIS AREA. STUDIES HAVE SHOWN THAT IMPOUNDING THE FREE FLOODING DELAWARE RIVER WOULD CREATE A 37 MILE LONG SEWER AND THE NEW JERSEY MEDICAL ASSOCIATION HAS WARNED OF THE DANGER OF A SERIOUS SALMONELLA EPIDEMIC THE COUNCIL ON ENVIRONMENTAL QUALITY AND THE ENVIRONMENTAL PROTECTION AGENCY HAVE WARNED THAT THE FRAGILE ECOLOGY OF THE REGION WOULD BE DESTROYED BY THE VAST NUMBER OF VISITORS EXPECTED AND THE COST OF THE HIGHWAYSNECESSARY TO ACCOMMODATE THESE VISITORS WOULD BE ATLEAST THREE TIMES THAT OF THE DAM WE CANNOT AFFORD THE COST OF THIS PROJECT IN MONEY HEALTH, SAFETY, ECOLOGY OR THE COUNTRIES DWINDLING STORE OF UNSPOILED NATURAL BEAUTY. DEAUTHORIZE NOW

HELEN WALTHER FOR OFF
BLAIRSTOWN NJ

08:55 EST

MGMCOMP MGM

APPENDIX B

Statements and Communications Opposed to Deauthorization

STATE OF NEW JERSEY
OFFICE OF THE GOVERNOR
TRENTON

BRENDAN T. BYRNE
GOVERNOR

July 23, 1976

Honorable Mike Gravel
Chairman
Subcommittee on Water Resources
Committee on Public Works
United States Senate
Washington, D.C.

Dear Mr. Chairman:

I appreciate the opportunity to submit written comments on S-3106 (Case et al). The bill would immediately deauthorize the Tocks Island Dam and Reservoir Project, advancing the deliberate timetable prescribed by the Water Resources Act (Public Law 93-251, 33 U.S. Code 579) under which no final deauthorization decision would be due until the 1980's or later. In my judgment, the proposal to deauthorize now is premature.

Last summer, a majority of the Delaware River Basin Commission recommended that Congress not appropriate funds for construction of the proposed Tocks Island Dam on the Delaware River, a project which Congress authorized in 1962. Convinced that the Tocks Island Dam offered an inferior way of meeting present and future needs, I called for action on preferable alternatives, leaving the 1962 authorization frozen until we had achieved real progress on the alternatives.

My position remains unchanged. A year's progress supports my judgment against spending tax money to build a dam today, but I cannot yet justify permanent deauthorization.

What have we accomplished in the past year?

New Jersey has completed legal action to delineate the floodway of the main stem on our side of the Delaware River. Under our State regulations, there will be no more residences constructed in the path of the danger that a dam might have reduced. The Delaware River Basin Commission and the Corps of Engineers have begun to consider additional, non-structural flood control alternatives.

New Jersey has begun to move on alternative water supply projects. Last year, we broke ground on the Round Valley outlet pipeline, the undisputed first priority project for the region from every perspective analyzed in the recent Northeast Water Supply (NEWS) Study. Completion of the pipeline next year will make up to 80 million gallons a day of extra supply available in case of another drought.

New Jersey has selected consultants for a detailed water supply master plan which will define the economic and environmental visability of the various intrastate alternatives to the Tocks Island Dam. We expect to complete the master plan within three years of contract signing this summer, and anticipate significant outputs along the way.

The Delaware River Basin Commission has begun to evaluate the suggestion that a reduced standard for minimum water flow passing Trenton will not risk undue intrusion of sea salts to downstream drinking water intakes and industry. Portions of that salinity intrusion study are underway or funded to begin this winter; but the Basin Commission must still secure nearly $100,000 to complete the job. That study holds out the possibility of a factual basis for greater beneficial use of the Delaware River waters (including an increase in New Jersey's legal entitlement to divert 100 million gallons a day out of the Delaware Basin) without the need for anyone to build a dam on the River.

In addition, we have begun to consult with the Corps of Engineers and the State of New York regarding long-range possibilities as to some of the Hudson River water supply.

Neither New Jersey nor any other State need realize all of the alternatives. But we must continue to move ahead on several. As we do so, the answers may justify an early deauthorization of the Tocks Island Dam and Reservoir Project. We have made progress, but more must be done. New Jersey has not yet reached the point where deauthorization is necessary or wise. The Corps should continue to acquire land in the Tocks area which can be utilized for park and recreation purposes, but which will also ensure the possibility of a future project if it proves essential to our water supply needs. I therefore urge you to defer action on deauthorization proposals this year.

Sincerely,

Brendan Byrne

GOVERNOR

STATEMENT

OF

ALLEGHENY ELECTRIC COOPERATIVE, INC.

ON

SENATE BILL 3106

TOCKS ISLAND LAKE PROJECT DE-AUTHORIZATION

BEFORE

SUBCOMMITTEE ON WATER RESOURCES
COMMITTEE ON PUBLIC WORKS
UNITED STATES SENATE
HON. MIKE GRAVEL, CHAIRMAN

July 23, 1976

Reuben Yoselson, President
Allegheny Electric Cooperative, Inc.
2929 N. Front Street
Harrisburg, Pennsylvania 17110

I am Reuben Yoselson, President of Allegheny Electric Cooperative, Inc.

Allegheny Electric Cooperative is a generation and transmission cooperative organized in 1946 by Pennsylvania's rural electric cooperatives to satisfy the need of the Commonwealth's rural areas for low-cost, dependable electric power. Allegheny purchases power at wholesale from both the public and private sectors of the electric power industry for distribution by 13 rural electric cooperatives in Pennsylvania and one in Sussex, New Jersey.

Allegheny provides the power used by more than one-half million consumers who live in Pennsylvania, New Jersey and a portion of Maryland. Each consumer's power bill ultimately depends on the ability of Allegheny to purchase reasonably-priced electricity which is reliable and efficiently served. Approximately 40% of purchased power is from hydro electric production by the Power Authority of the State of New York (PASNY), with the balance coming from various investor-owned producers.

We address ourselves to the question of the de-authorization of Tocks Island both as a source of the vital commodity which power industry and commerce in more than 1/3 of the Commonwealth, and as the representative of the half-million or more residents of those areas who will be affected by resolution of the pending bill, Senate Bill 3106. Our position was deliberated in the context of the needs of the entire region served, including the Delaware Valley Basin. We have reviewed not just the economics of the power

industry, but also the enviornmental and economic and cultural impact of the whole project. We have recognized our obligations to the community to weigh and measure all of the complex and inter-related factors which enter into final judgments affecting the future use of water resources of the basin.

We have considered and studied the potential for production of hydro electric and pumped power generation of electricity if Tocks Island Lake is created, and the benefits that such production can bring to our region. Yet, that alone would not prompt our support of the Tocks Island Lake Project if the project, in its totality, were to be shown inimical to other values which affect the lives and welfare of the consumers we serve. We examined the alternatives to Tocks Island Lake. We made reasoned judgments based on the evidence which has been gathered to document this project over a period of nearly fifteen years from the inception of the Tocks Island Project.

We examined the goals to be achieved, and the needs to be satisfied. We balanced the benefits to be gained with the losses to be endured. We reviewed with an open mind each argument made, weighing the evidence offered, and attempted as fairly as men can to eliminate any bias based on self-interest in the lower cost of hydro electric power production and our entitlement to preference purchasing. We made the only judgment which objective examination of all the evidence permits.

Tocks Island Lake must be implemented, in its entirety, at

the earliest time permitted by the final design and construction plan. There is no benefit to be gained by delay, and there are no further alternatives which may reasonably be considered now or for the foreseeable future.

Even those who continue to oppose Tocks Island Lake agree on the validity of the goals to be achieved: Flood control remains an overwhelming need; New York, New Jersey and the urban centers of Pennsylvania are faced with a quantitative water shortage and a qualitative purity and salinity problem which can be solved in no other way; electric power generation to serve industry, commercial and residential use must be increased to meet projected growth; and, the recreational needs of the most densely-populated area of our nation, with its crowded urban centers, must be met.

We weighed the desirability of a series of small dams and contrasted that proposal with the single dam of Tocks Island Lake; we weighed the complex water controls and continued supervision by the courts necessary to allocate water supplies against the demonstrated water control solution proposed by Tocks Island Lake; we weighed the thermal and physical pollution, the waste disposal needs of conventional or nuclear generation of power against the clean, non-polluting hydro electric production of hydro and pumped power from Tocks Island Lake; we compared the ineluctable necessity of roads and highways necessary to serve the expanding population of the Northeast with the benefits of a national park with water recreational facilities to that without water; and we looked beyond the political questions to the essential factors governing water needs for the future of this great area.

On every point of comparison we found compelling evidence in favor of Tocks Island Lake. On no point of comparison was there sufficient evidence, taken in context of the whole project, persuasively against the construction of Tocks Island Lake. No environmental, cultural, social or economic impact studies offered defined a problem in which the superiority of Tocks Island Lake as a solution was clearly disadvantaged. With the sole exception of the loss of potential archeological sites for exploration, the balance weighed unyieldingly to Tocks Island Lake. We regret that archeology and man's knowledge must suffer, but as rational human beings we consider that loss a necessary price to pay for the great advantages which will come to the region.

We find that the disputes over the means by which the Delaware Valley Basin problems are to be resolved are sometimes specious, frequently tending to serve only the narrowest singly-focussed viewpoint of the opponents. In some instances we become aware of a self-serving arrogance of elitists whose apparent purpose was to impose zealously proclaimed environmental views to the exclusion of all other considerations. At other points of examination of the evidence it was manifest that some opponents had apparently abandoned common sense in satisfaction of an ego need to impose their sincerely-held but admittedly myopic opinions on the whole body politic.

We have no quarrel with responsible conservationists, and appreciate that without the valid issues raised by them the massive evidence needed for fair evaluation of the impact of this project would not have been adduced. They did their work well, it was

valuable and even indispensable; but, the evidence is in and may be judged fairly and objectively. Many environmental groups, acting responsibly and in the whole public interest have withdrawn their opposition and now support Tocks Island Lake as the only feasible solution to the problems of the Delaware Valley Basin. We suggested that other environmental groups which continue in opposition review their prior judgments by objective examination of the evidence and surrender their single-mindedness to the greater public good.

The $1.5 million report of URS/Madigan-Praeger, Inc., prepared at the insistence of Congress to resolve for once and for all time the dispute over means to achieve the goals everyone agrees are necessary to survival of the Delware River Basin conclusively establishes that only Tocks Island Lake Project combines the maximum benefits possible at the lowest cost and with the least overall impact on our region. We agree that further political questions pertaining to flood plains, housing, roads and land use must be resolved, but those questions are well within the capabilities of our people to solve. However imperfectly and haltingly, our nation has demonstrated for 200 years its ability to solve human problems while permitting progress to a continuingly higher standard of living for its citizens.

We must consider the benefits of the Tocks Island Lake Project to assess the entire proposal fairly. One of the benefits to be obtained is hydro electric and pumped storage power generation.

Dependable, low-cost electricity, now subject to the political vagaries of foreign nations, continues as a life-sustaining need of our nation.

In some areas of the Northeast the cost of this vital productive commodity has risen unprecedentedly in the last three years. Fuel adjustment costs caused by the price of foreign oil and ecologically-acceptable coal have been passed on to the consumer directly. The cost of electricity to some consumers in the Delaware River Basin has more than doubled since 1973! But in the very same region, some electric consumers served by hydro electric power have experienced little or no increase in the cost of electricity during the same period.

The rising cost of electricity has strained family budgets, closed down some marginal employment, and even caused loss of life. In Pennsylvania, an elderly woman attempting to live on her fixed income, froze to death because her service was disconnected for non-payment! We must ask what alternative policy or program which fails to consider hydro electric production of a basic life-giving commodity can justify deprivation of life.

Allegheny purchases nearly half its power supply from hydro electric production of the Power Authority of the State of New York. That power is not subject to fueld adjustments and the foreign opportunists raping our resources of capital and income have no effect on its cost. Because hydro power is clean, pollution-

free and produces no waste products for disposal, its costs are relatively stable. The other 50% of Allegheny's power is purchased from several utilities dependent on thermal power production, and subject to the costs of fuel, econolical hardware and waste disposal. We are peculiarly able to judge the relative desirability of hydro power and thermal power.

Delaware Electric Cooperative, in Greenwood, Delaware, has experienced a price increase of 201% since 1973 for thermally-produced power! Sussex Rural Electric Cooperative, Sussex, New Jersey, served by Allegheny and with its costs tempered by hydro power stability, suffered a lesser increase in costs of 77.8%. Delaware County Electric Cooperative, Delhi, New York, served entirely from hydro production incurred absolutely no price increases from 1973 to 1975!

For Allegheny's entire service needs the purchase of hydro power resulted in savings of more than $7,580,690 over the costs it would have incurred for the purchase of thermal power in 1975. That figure translates into jobs, business and savings otherwise not available to our economy. We are able to project now that continued dependence on thermally-produced power to satisfy predicted demand of the consumers served will raise costs by $56,000,000.00 dollars in the year 1978. The availability of hydro electric production of power will not change our burden in 1978, but the immediate implementation of Tocks Island Lake can have a significant effect in future years.

The cheaper, cleaner production of power in the Delaware River

Basin can only be achieved if the Tocks Island Lake Project is constructed. No alternative plan can produce that benefit. The alternative plans, by contract, continue to rely on power production at thermal plants using fossil fuels or nuclear energy. Whether or not Tocks Island is built the power needs will continue to increase: Tocks Island is cheaper, cleaner and quicker!

The public has invested more than $100 million to date in Tocks Island. Its worth has been recognized officially by others as well. The Governor of Pennsylvania has said, "...the Tocks Island Lake Project is superior to the various proposed alternatives in many ways. I reaffirm the Commonwealth of Pennsylvania's long-standing position favoring immediate construction of the Tocks Island Lake Project." The U. S. Corps of Army Engineers has said, ",,, the Tocks Island Lake Project is engineeringly sound and economically justified and...benefits accruing from the Project outweigh the institutional and environmental impacts." The Governor of New Jersey, who has urged continued costly indecision for reasons not germane to any issues of its value, was compelled by the evidence to announce that New Jersey might want Tocks someday, so it should not be de-authorized. Not being burdened with the onus of political consequences, we suggest that day may be much sooner than the Governor of New Jersey is free to admit.

The statements we quoted, and the testimony and evidence gathered since 1962 to evaluate the Tocks Island Lake Project argue overwhelmingly in favor of its immediate construction and against de-authorization. The Madison-Praeger study designed to resolve any remaining questions in 1975 validates the needs and supports

the credibility of those who have urged that action.

Allegheny remains firmly in support of the construction of the Tocks Island Lake Project, and unalterably opposed to the de-authorization of the project suggested by Senate Bill 3106.

The indecision and neglect of the past which have so long delayed this vital project may yet be corrected by firm and decisive action taken now to support the massive evidence in support of Tocks Island Lake.

Respectfully submitted,

Reuben Yoselson

Reuben Yoselson, President

STATEMENT OF THE AMERICAN PUBLIC POWER ASSOCIATION
IN OPPOSITION TO S. 3106
SUBMITTED TO THE SUBCOMMITTEE ON WATER RESOURCES
OF THE SENATE PUBLIC WORKS COMMITTEE
August 16, 1976

The American Public Power Association, a national organization representing more than 1,400 local publicly owned electric utilities in 48 states, Guam, the Virgin Islands, American Samoa, and Puerto Rico, opposes S. 3106, legislation to terminate the authorization of the Tocks Island project.

In 1962, Congress authorized construction of the Tocks Island Dam to control floods, to supply water, to furnish hydroelectric power, and to provide recreational facilities.

In the years since the project was first authorized, concern arose about the environmental aspects of the project and the project's ability to meet its goals. As a result, Congress directed an impartial study of the dam and reservoir in August, 1974. A comprehensive 6-volume analysis of the project and possible alternatives was completed by Madison-Praeger, Inc. for the Corps of Engineers in the summer of 1975.

The study concludes that there are unsatisfied demands for water supply, flood control, electric power, and water-related recreation in the Delaware River Basin which would be served by development of the water resources of the basin, and that Tocks Island project has a better cost-benefit ratio than alternative solutions.

Based on the Madison-Praeger study and previous studies, the Chief of Engineers of the Army Corps of Engineers, Brigadier General James L. Kelly concluded: "The Tocks Island Lake Project is engineeringly sound, economically justified and the benefits accruing from the project outweigh the institutional and environmental impacts." He recommeded, "that the project proceed to construction and not be further delayed."

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The Tocks Island project would have the capability for developing about 40,000 kilowatts of firm conventional hydroelectric power. This amount of power could be marketed by the Federal government to consumer-owned electric utilities in the area. In addition, private power companies have proposed the Kittatinny pumped storage plant, which will include five reversible pump turbine units with about 260,000 kilowatts each or a total of 1.3 million kilowatts.

Energy problems facing the country demand reexamination of hydroelectric power generation potential. According to the Federal Power Commission, only about one-third of potential hydro capacity has been developed. In a time when the nation needs to conserve fossil fuels, hydro power offers vast savings. If an energy equivalent to undeveloped hydro resources were produced from oil or coal, more than 700 billion barrels of oil or about 180 million tons of coal would be required per year.

Hydroelectric power is renewable and nonpolluting. It not only conserves the nation's fossil fuel resources, but helps insure reliability and is often the paying partner in a multipurpose water resources project.

Federal hydro projects have been an important source of power to both municipally-owned and cooperatively-owned electric systems. More than 500 local public agencies obtain all or part of their power supply from Federal power systems, which, except for the Tennessee Valley Authority, rely wholly on hydro power.

Hydro power also represents a competitive lever to encourage present suppliers to find economical fuel supplies and keep their wholesale rates competitive.

Fuel cost adjustments have become a substantial part of wholesale power rates paid by municipals. For example, in Pennsylvania, fuel cost adjustments paid by the Borough of Lehighton have increased from $611 in March of 1973 to $1,967 in March of 1974 and to $16,948 in March of 1975. For the combined two year period, fuel prices have increased 2,674%.

In view of these considerations, APPA urges Congress to reject de-authorization of Tocks Island Reservoir, and to advance the project without delay.

BETTER BUSINESS BUREAU OF EASTERN PENNSYLVANIA
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August 12, 1976

The Honorable Mike Gravel, U.S.S.
Subcommittee on Water Resources
Committee on Public Works
United States Senate
Washington, D. C.

Dear Denator Gravel:

As the former Executive Director of both the Tocks Island Regional Advisory Council and the Water Resources Association of the Delaware River Basin I have a continuing professional interest in the Tocks Island Lake Project (TILP), multipurpose impoundment authorized by Congress in 1962 for construction on the Delaware River. I have recently had the opportunity to review the transcript of your Subcommittee's recent hearings on S.3106 and there appeared therein numerous points which require clarification. I have addressed myself to these points in this letter, a copy of which I hereby request be placed in the record of the hearings on S. 3106.

Philadelphia has spent or committed vast sums of money for both water and wastewater treatment facilities on the Delaware River impoundment that would augment low flows in the Delaware at Trenton. Such low-flow augmentation would have two effects bearing on these decisions. First, the increased flows would insure raw water of acceptable quality at the water intake of the City's water purification facility at Torresdale. Second,

the augmented low flows would provide the assimilative capacity necessary to receive the treated wastewaters discharged from three water pollution control plants located along Philadelphia's waterfront.

Many years ago, Philadelphia had a choice between (1) going to an upland source for its water supply and piping the water to the City for minimum treatment and distribution; and (2) building an expensive, efficient water treatment plant on the tidal but normally fresh-water reach of the Delaware River. Relying on the Interstate agreement among the Basin States that was incorporated in the 1954 decree of the U.S. Supreme Court, which included obligations on the part of New York and New Jersey designed to protect the quality of water in the Delaware River, Philadelphia deferred the upland water source alternative and decided to use water directly from the tidal river at Torresdale. Since 1954, the City has spent many millions of dollars in rebuilding the water supply facilities at the Torresdale location. With this investment, it is no longer practical for Philadelphia to reverse its decision and pipe in a water supply from an upland source.

It may not be immediately clear how the Supreme Court decree of 1954 and the obligations it imposed on New York and New Jersey are related to Philadelphia's reliance on the Tocks Island Lake project, which was not authorized by Con-

gress until 1962. At the time of the Interstate agreement embodied in the 1954 decree, the Commonwealth of Pennsylvania planned to construct an impoundment on the Delaware River near Wallpack Bend, about seven miles above the site of the subsequently authorized Tocks Island dam. The 1954 decree obligated New Jersey to support construction of the Wallpack Bend dam as a condition for permission for New Jersey to divert water from the Delaware River Basin at an average rate up to 100 mgd. Later, with the official concurrence and urging of New Jersey, acting as a signatory party of the Delaware River Basin Compact, the Tocks Island project, because it was found to be superior, was substituted for the Wallpack Bend project. For the purpose of insuring acceptable water quality in the tidal Delaware River, it made no difference to Philadelphia whether the needed low-flow augmentation was to be provided by Wallpack Bend or Tocks Island, and for this reason, Philadelphia did not object to the proposal by New Jersey and the other Interestate-Federal compact signatures to substitute Tocks Island for the Wallpack Bend project. However, if the Tocks Island project is now deauthorized, it will be impossible to reverse the substitution -- because the acquisition by the Federal Government of lands in the site of the proposed Wallpack Bend impoundment effectively precludes development of this project. Deauthorization would leave Philadelphia

with a multimillion dollar water supply facility designed with the assumption of adequate sustained flows that would have been guaranteed by a mainstem dam, but the facility would not be able to supply water of acceptable quality in the absence of the sustained flows relied upon in the design.

The flow augmentation that was to be provided by the Delaware River impoundment at Tocks Island was important not only in the design of Philadelphia's water supply system, but also in the design of the City's wastewater disposal system. In the early 1960s, the U.S. Public Health Service, the agency then responsible for administration of the Federal Water Pollution Control Act, initiated an investigation of the pollution abatement needs for the Delaware estuary. The Delaware River Basin Commission participated in this study, which included the determination of the capacity of the estuary to assimilate treated wastes from the municipalities and industries. The assimilative capacity of the upper estuary varies with the flow of the Delaware River at Trenton; therefore, in determining the capacity it was necessary to estimate the minimum flow to be expected at Trenton. Because the Tocks Island Lake project was then already authorized, and because this project was designed to augment the low flows at Trenton, it appeared reasonable and safe to assume that the Trenton flow would be sustained

at not less than 3,000 cfs (cubic feet per second), and this flow was used in the computation of the assimilative capacity of the tidal river.

In 1967, using the findings of the Federal study of the Delaware estuary, including the assimilative capacity based on the assumed sustained flow of 3,000 cfs then guaranteed by the authorized Tocks Island project, the Delaware River Basin Commission adopted water quality standards for the estuary and allocated the assimilative capacity among the approximately 90 waste discharges located along the shores of the estuary in New Jersey, Pennsylvania, and Delaware. Waste sources discharging waste loads in excess of their alloted share of the total assimilative capacity (at the 3,000 cfs flow) were required to reduce their loads to the allocated amount. To accomplish this, the waste dischargers have designed and started construction on the improved waste treatment works, and have spent or committed upwards of a billion dollars. Philadelphia alone has embarked upon a abatement program that at current price indexes will ultimately cost $415 million. These vast sums will undoubtedly have to be revised upward as a result of continuing inflation.

If the Tocks Island impoundment is not constructed and the design flow of 3,000 cfs is not realized by the time the estaurine abatement works are upgraded on the basis of that flow, it can be confidently predicted that the billion dollar plus abatement program for the Delaware estuary will be a monstrous disappointment to the hard-pressed taxpayers who will have sacrificed to pay for it. It will be difficult to convince these taxpayers and their legislative respresentatives that vast additional moneys must then be spent to upgrade waste treatment works still further above the currently designed high levels to compensate for the reduced estuarine assimilative capacity for Trenton flows less than the design of 3,000 cfs.

It has been suggested by some opponents to the Tocks Island Lake project that low-flow augmentation should not be used as a substitute for waste treatment or removal at the source. This reflects a lack of understanding of the complex interrelationships between water supply and water quality control. First, it is necessary to understand that none of the storage capacity in the Tocks Island project or its costs have been allocated to the purpose of water quality control, even though the water quality benefits will be substantial and would meet the Federal criterion of being "widespread and general." The storage capacity in

Tocks has been allocated to water supply recreation, power generation, and flood control. Second, it is necessary to understand that the planned purpose of the water supply storage capacity in Tocks Island Lake is not to increase the river's wastes assimilative capacity, but to maintain it in the face of increasing depletive use of the river's waters -- on which the assimilative capacity depends. The purpose of this storage capacity is partly to compensate for water exported from the Basin, primarily by New York and New Jersey, and partly to replace water used consumptively within the Basin. Under the Water Supply Policy established by the Delaware River Basin Commission, water exporters and consumptive users will pay for the water supplied by Tocks Island or other Federal projects. These water users are in effect paying the DRBC to assume their moral and legal obligation to replace the water they remove from the Basin, thereby preventing damages to downstream interests, including waste dischargers who are dependent upon minimum river flows for design of their expensive waste treatment works. It would be obviously inequitable to allocate to waste dischargers any portion of the costs of Tocks Island storage designed to compensate for use and exportation of water, and fortunately none of the Tocks costs were allocated to waste dischargers. On the

other hand, these waste dischargers have a right to protection against increased costs of waste treatment that would result in the absence of flow regulation to compensate for depletive use of stream flows and reduction of assimilative capacity of the river. Again, Tocks Island will not reduce waste treatment costs; it will prevent increased waste treatment costs that would otherwise follow uncompensated depletive uses of water.

It is ironic that most of the opposition to the Tocks Island Lake project comes from interests in New York and New Jersey, the States diverting large quantities of water out of the Delaware Basin, thereby aggravating the water quality problems in the Delaware River. It is also ironic that New York opposes the Tocks Island project because, that State's officials say, sources of pollution in New York would be forced to abate their pollution at a cost estimated by New York to be as much as $40 million (but estimated by URS/Madigan-Praeger in the Congress directed 1975 study to be from $2 to $4 million). In the absence of Tocks Island Lake and its planned flows to compensate for depletive use of water, the increased pollution abatement costs downstream of New York will likely be of a higher order of magnitude -- hundreds of millions or billions of dollars. If costs of pollution abatement programs are to be a criterion in deciding the Tocks Island issue, then this factor is overwhelm-

ingly in favor of building Tocks as soon as possible.

It is ironic that some of the same so-called environmentalists who claim that maintenance of low flows into the Delaware estuary for water quality control is unnecessary -- because Public Law 92-500 requires total waste removal at the source -- also claim that New York's sources of pollution would not be corrected and would therefore contaminate Tocks Island Lake. These so-called environmentalists conveniently forget that P.L. 92-500 applies to New York State no less than to the region bordering the estuary in New Jersey region, Pennsylvania, and Delaware.

It is ironic that New York has opposed the Tocks Island project -- downstream of that State's borders -- when that State's largest City has built impoundments in its portion of the Delaware Basin with more than twice the water-supply capacity of the Tocks project, and diverts 800 million gallons of water daily from the basin. It is especially ironic that New York State should oppose the Tocks Island project after suggesting during the litigation leading to the 1954 decree -- which permitted New York City to divert the 800 mgd -- that Pennsylvania and New Jersey construct

impoundments in their portions of the Delaware River Basin to provide benefits to downstream interests supplementing the benefits from New York's proposed downstream releases. It is ironic that New York's opposition to the Tocks Island project not only frustrates the attempts to supplement New York's promised downstream benefits, but also frustrates the efforts to compensate for the inability of New York to deliver the downstream flows promised in 1954 and mandated in the Supreme Court decree.

It is ironic that New York's opposition to the Tocks Island Lake project is based largely on the New York belief that the water quality needs of this water supply and recreation lake downstream of New York would necessitate abatement of pollution in New York -- since New York promised and the Supreme Court mandated in 1954, as a condition of the right to divert 800 mgd from the Basin, that the water leaving New York State and flowing downstream in the Delaware River would be of good quality, suitable for water supply, recreation, and maintenance of sanitary conditions in the river. New York's claim that the use of Tocks Island Lake for recreation and water supply would necessitate pollution abatement in New York appears to be an open admission that New York is not meeting its obligations under the negotiated Interstate agreement that became the Supreme Court decree of

1954. With this admission, New York as forfeited its right to continue diverting water from the Delaware River.

It is ironic that while New York's water quality standards specifically subordinate waste disposal in the State's waterways, and its tributaries in New York, to the use of these waterways for water supply and recreation, that State's position on the Tocks Island project favors the use of the Delaware River downstream of New York as a waste receptacle over the river's use for water supply and recreation. It is equally ironic that the Governor of New York, acting as that State's member of the Delaware River Basin Commission, joined in members, of the water quality standards for the upper Delaware River and its interstate tributaries -- these interstate standards, like those of New York, assign priority to water supply and recreation over waste disposal in considering stream uses to be protected.

It is ironic that some of the legislative representatives of the Pennsylvania, New Jersey, and Delaware water users who need the water that Tocks would provide have joined the representatives of the waste dischargers in New York in attempting to deauthorize Tocks, thereby supporting the use of the Delaware River as a waste receptacle rather than its use for water supply.

It is ironic that the U.S. Environmental Protection Agency to which Congress assigned the administration of P.L. 92-500 -- the law designed to make the nation's waters, including those draining New York State, fit for water supply and recreation, has said that in view of the pollution draining into the Delaware River from New York State, the Delaware River should not be developed for water supply and recreation.

It is ironic that the Federal Council on Environmental Quality, the agency responsible for improving the quality of the human environment, has joined EPA in urging deauthorization of Tocks Island, thus denying needed improvements in the human environment, on the grounds that the use of Tocks Island for water supply and recreation would require New York State polluters to stop using the Delaware River as an Interstate sewer.

It is ironic that some of the so-called environmentalist groups who would save the Delaware River from development for water supply, recreation, and other human needs are strangely silent about the need to save the Delaware from continued use of the river as a waste receptacle for pollution sources in the upper Basin. If they were as zealously concerned about saving the Delaware from pollution as they apparently are about preventing its use for water

supply, recreation, and other human needs, they would eliminate their main argument against the Tocks project -- that the pollutants draining into the lake from the upper Basin will cause eutrophication. Their sincerity in professing to be in favor of saving the Delaware River is open to question.

It is ironic that New Jersey has opposed construction of Tocks Island Lake, which would compensate for the diversion of water from the Delaware Basin, while New Jersey continues to divert water from the Basin under the Supreme Court's permission of 1954 -- which permission is expressly conditioned upon New Jersey's support of a Delaware River mainstem impoundment. New Jersey now claims that this condition does not require that state's support of the Tocks Island project, relying on the fact that the decree specifies support of the Wallpack Bend project -- even though New Jersey, acting officially through its Governors in their capacity as ex officio members of the Interstate-Federal Delaware River Basin Commission, through New Jersey's alternate DRBC members, and through the New Jersey legislature, have repeatedly -- from 1961 until recently -- urged and promoted the authorization and development of the Tocks Island project

as a substitute for the Wallpack Bend project. In this connection, we have seen the legal opinion submitted for the record of your committee's hearing on July 26, 1976, by Mr. Harold Lockwood, Jr., of the Save the Delaware Coalition, in which counsel states that:

> "As far as I am advised, New Jersey has not repealed Chapter 443 or taken any other action to prevent or discourage Pennsylvania from building the Wallpack Bend dam, and thus has not violated the above quoted condition.
>
> ***
>
> "I can find no reference to any action taken officially by the State of New Jersey to agree to the Tocks Island dam as a subsitute [for Wallpack Bend]."

Obviously, there is much incontrovertible evidence of many official actions by New Jersey that have supported and promoted the substitution of Tocks Island for Wallpack Bend, and that New Jersey has knowingly and officially participated in actions that necessarily preclude the construction of the Wallpack Bend dam. With these actions, together with New Jersey's frustration of the construction of Tocks Island dam, New Jersey has forfeited its right to the 100 mgd diversion conditionally permitted by the Supreme Court decree.

It is ironic that New Jersey's opposition to construction of the Tocks Island project is based on the belief that there are viable alternatives to the Tocks project. Prominent among these so-called alternatives is the proposal to increase the diversion of Delaware River water out of the Basin, which, as explained above, is legally impossible without construction of the Wallpack Bend impoundment or its authorized substitute, the Tocks Island Lake project.

Even if it were legally possible for New Jersey to increase its diversion of water from the Delaware River without the compensatory flow release from the mainstem dam New Jersey is obligated to support, this "alternative" to Tocks Island would meet only the water needs of northeastern New Jersey outside the Delaware Basin, and would not only fail to meet the needs of the in-Basin water users in New Jersey, Pennsylvania, and Delaware which the Tocks Island project would do, but the uncompensated diversion to New Jersey would actually aggravate the in-basin needs.

Former New Jersey administrations took a leading role in planning the Interstate and multipurpose Tocks Island project and in bringing it to a point of near construction so that within a few years it could be ready to serve the needs of the interstate region. Now, the current New Jersey administration appears to be concerned only about

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northeastern New Jersey, and ignores the in-Basin needs of the Basin community in Pennsylvania and Delaware -- as well as in the in-Basin portion of New Jersey.

Salinity Intrusion

A primary need for the Tocks Island project is for control of salinity intrusion in the Delaware estuary. If projected increases in the depletive water use necessary to sustain the region's economy and general welfare are to be realized, fresh-water flows into the Delaware estuary will steadily decrease, with the result that seawater from the Atlantic Ocean will advance farther and farther up the tidal river each successive year during the low-flow period. Tocks Island Lake releases during these annual low-flow periods would counteract the trend of decreasing flows and increasing salinity in the estuary.

During the hearing before the subcommittee, several seriously misleading statements were made by a witness concerning the salinity intrusion issue. It was stated that during the drought of the 1960s, the 250 mg/l isochlor (chloride line) did not reach Philadelphia's water intake at Torresdale. This is true, but not relevant. The Water Quality Standards of the Delaware River Basin Commission, approved by the U.S. EPA, specify a much

lower maximum of 50 mg/l, not 250 mg/l, at the Torresdale water intake. The chloride concentration of 50 mg/l corresponds to the upper limit of sodium recommended by the American Heart Association (AHA) for potable water supplies used by patients with heart disease and other ailments. The sodium concentration at Torresdate has exceeded this upper limit frequently in the past at Torresdale, not just during the severest drought in the 1960s. EPA has suggested that when this occurs, physicians in the area should be notified that the City's drinking water could be potentially dangerous to heart-disease patients.

Philadelphia's water supply is not the only public supply affected by sea-water intrusion in the Delaware estuary. Camden, N.J., is even more vulnerable; this New Jersey City takes its water from wells that are recharged in large part by water infiltrating from the tidal Delaware River. The recharge area for Camden's wells extends as far down the estuary as the Schuylkill River. During the drought of the sixties, the chloride concentrations at the mouth of the Schuylkill River exceeded 500 mg/l. The effects of this are still being seen more than a decade later; the U.S. Geological Survey, which monitors the salinity of Camden's well waters, has reported a trend of still increasing salt concentrations in these waters.

A witness who discussed the salinity problem before your committee on Monday, July 26, 1976, spoke only of the 250 mg/l isochlor in relation to Philadelphia's water supply. The witness failed to point out that chlorides in public water supplies are of concern not only from the standpoint of health requirements for limited salt intake, but also from the standpoint of damage caused by high salt concentrations, such as corrosion of plumbing, household appliances, industrial piping and facilities, and damage to industrial processes depending on public water supplies. The witness also failed to point out that many industries along the estuary from Trenton, N.J., to Wilmington, Del., take water from the Delaware River directly on through aquifiers recharged by the tidal river. These industries also suffer damage from increasing sea-water intrusion. These damages occur at salt concentrations far less than the 250 mg/l chloride level mentioned by the witness.

In the absence of Tocks Island dam, these and other damages will put an increasing stress on the economy of the entire Delaware Valley region, which extends far beyond the limits of Philadelphia.

Senator Gravel, for the good of Philadelphia, the Delaware Valley, and the entire nation, I urge you and your colleagues not to deauthorize the Tocks Island Lake project.

I further urge you to convey to your fellow legislators the need for expediting the funding of construction of this beneficial multipurpose project.

Sincerely,

Frank W. Dressler



CHESTER WATER AUTHORITY
FIFTH AND WELSH STREETS · CHESTER, PA. 19016
AREA CODE 215 TR 6-8181

PETER K. MAC EWEN
EXECUTIVE MANAGER
AND CHIEF ENGINEER

August 12, 1976

Honorable Mike Gravel, Chairman
Water Resources Subcommittee
Committee on Public Works
4204 Dirksen Senate Office Building
Washington, D. C. 20510

My dear Senator Gravel:

This is in response to S. 3106 which would terminate the authorization for the Tocks Island Lake Project.

As the Executive Manager and the Chief Engineer of the Chester Water Authority I feel obligated to express to you the importance of the Tocks Island Project to this Authority and the more than 130,000 people plus the industries that are served by the Chester Water Authority. I have attached a statement which I made to the Delaware River Basin Commission relative to the Tocks Island Dam and Reservoir Project for your review and consideration. Accordingly, I would like to be on record in opposition to S. 3106, legislation to terminate the authorization for the project.

This Authority currently imports water from the Susquehanna River Basin and in the future we have been advised by officials of the Susquehanna River Basin Commission that our future supplies will have to come from other sources. The obvious source at this time would be the Delaware River Estuary and the deauthorization of the Tocks Project would impose serious limitations on the capacity of the Delaware River as a source of supply. The economic well being of the Delaware Valley is directly tied to the availability of an adequate source of water supply and it is for this reason that I am expressing my opposition to S. 3106.

Respectfully submitted,

P. K. MacEwen

Peter K. Mac Ewen

c
Enclosure
cc: Paul Felton
C. H. J. Hull



CHESTER WATER AUTHORITY
FIFTH AND WELSH STREETS · CHESTER, PA. 19016
AREA CODE 215 TR 6-8181

PETER K. MAC EWEN
EXECUTIVE MANAGER
AND CHIEF ENGINEER

July 18, 1975

STATEMENT BY P. K. MAC EWEN,
EXECUTIVE MANAGER AND CHIEF ENGINEER,
CHESTER WATER AUTHORITY, FIFTH AND WELSH STREETS,
TO THE
DELAWARE RIVER BASIN COMMISSION
ON HEARING RELATIVE TO
TOCKS ISLAND DAM AND RESERVOIR PROJECT
JULY 22, 1975

Gentlemen:

I am P. K. Mac Ewen, Executive Manager and Chief Engineer of the Chester Water Authority, Chester, Pennsylvania. The Authority is a public water supply utility serving approximately 130,000 people and approximately 120 industries located in western Delaware County and Chester County, Pennsylvania. The large industrial and manufacturing complex along the Delaware River from the City of Chester to the Delaware State line is highly dependent upon our water supply and uses approximately 60% of the total water pumped by Chester Water Authority. In addition to the City of Chester, the Authority supplies water to 15 other communities in both Delaware and Chester Counties.

The Chester Water Authority was organized on July 6, 1939 under the Pennsylvania Municipality Authorities Act. However, the original facilities, which have since been replaced, were installed in 1868.

Our source of supply is the Octoraro Creek in Chester County and the Susquehanna River in Lancaster County, Pennsylvania. The Authority has a permit to withdraw a total of 30 million gallons per day from both the Susquehanna River and the Octoraro Creek for a total of 60 million gallons per day. The water is treated at our Octoraro Treatment Plant and pumped approximately 35 miles through a 48-inch transmission main to the distribution system in Delaware County.

The demand for water has been increasing and it is anticipated that by the year 1988 the Authority will require an additional source of supply. The demand projections are based on increased demands from both existing and new residential and industrial customers. Discussions with authorities in the Susquehanna River basin in the past have indicated that additional exports from that basin will not be permitted and therefore, it appears that the most feasible source of supply will be from the tributaries within the Delaware River basin and/or the Delaware River estuary.

It is clear that consumptive diversions from the Delaware River or its tributaries have an affect on the intrusion of salt water from the Delaware Bay. During the drought of the early 1960s the salt front, the location of the 250 parts per million of chloride concentration, moved into the estuary to the point where it reached approximately nine miles below the Philadelphia water supply intake at Torresdale. During this period the chloride concentration at Chester was much higher than 250 parts per million and exceeded the U.S. Public Health Service drinking water standards.

With the construction of the Tocks Island Dam the safe yield of the Delaware River would be increased, thereby precluding the repeat of low flow conditions that existed during the critical period of the 1960s assuming that a similar hydrologic regime was experienced.

In order to provide for future water supply demands in the lower Delaware River basin including that of Chester Water Authority it is imperative that the Tocks Island Dam and Reservoir be constructed so as to increase the safe yield of the Delaware River. On the basis of the above, I therefore strongly recommend that the Delaware River Basin Commission consider favorably the Tocks Island project.

Thank you for this opportunity of presenting this statement to the Commission.

P. K. Mac Ewen

Peter K. Mac Ewen, P.E.

DELAWARE RIVER PORT AUTHORITY
OF
PENNSYLVANIA AND NEW JERSEY
BRIDGE PLAZA
CAMDEN, NEW JERSEY 08101

(609) 963-6420
(215) 925-8780

WILLIAM W. WATKIN, JR.
EXECUTIVE DIRECTOR

August 16, 1976

The Honorable Michael Gravel, Chairman
Water Resources Sub-Committee
Committee on Public Works
4204 Dirksen Building
Washington, D. C. 20510

Dear Senator Gravel:

The Delaware River Port Authority is a Bi-State Agency created by the States of Pennsylvania and New Jersey, with the consent of Congress, to work for the improvement and development of the ports and commerce of the Delaware River. We address you to urge the rejection of Senate Bill #3106, to deauthorize the Tocks Island Dam project.

One of our major objectives in implementing the obligation of our Compact is the location of water related industry on the river and in our Port areas. Water related industry includes food processing, steel manufacturing, chemicals, building materials, petroleum refining and other energy producing activities. These industries are attracted to the Delaware River region because of the fresh water availability for their manufacturing processes and for the navigable channel of the river to import raw materials and export finished products.

Water related industry provides over 300,000 jobs in manufacturing alone, more than one-third of the total employment by manufacturing in the entire region. Wages generated exceed $5 billion and value added by the manufacturing process is over $8 billion, almost one-half of the total value added by all manufacturing in the Delaware Valley.

The Tocks Island Dam project is intended to regulate the flow of the Delaware River to prevent floods and to conserve and to improve in quality the waters of the Delaware River. These benefits are essential to the continued growth and development of the economic well-being of this region.

Therefore, we urge that S3106, a Bill to deauthorize the Tocks Island Dam project, be rejected and that efforts be continued to achieve the benefits for which the Tocks Island Dam project was authorized.

Sincerely,

W. W. WATKIN, Jr.
Executive Director

WWW:mjr

Statement Of

DELAWARE VALLEY COUNCIL

To The

SUBCOMMITTEE ON WATER RESOURCES,
SENATE COMMITTEE ON PUBLIC WORKS

In Support Of

TOCKS ISLAND LAKE PROJECT

August 1976

Mr. Chairman, Members of the Subcommittee:

Thank you for this opportunity, to affirm for your record the Delaware Valley Council's support of Tocks Island Lake conservation project.

The waters of the Delaware River are one of our area's primary natural resources. They were one of the primary reasons for its settlement and development. They now support, and are needed to support, most of our human environment, economy, and employment here.

Unconserved, these waters are now inadequate to our needs. Because of their diversion, by New York and northern New Jersey, and increased consumption, their minimum required flow down to our area now is no longer assured. We speak from knowledge, and experience.

We assure you this area cannot be sustained without this mainstem conservation impoundment. We have examined its so-called "technically viable" and other alternatives, in detail. They do not, in fact cannot, meet our multiple, mounting, all encompassing water resource requirements here. That easy "one-liner", of "build some alternative" -- offered you as testimony by some (whose special preoccupation is more narrow than ours) -- that is not a responsible proposition.

The Delaware Valley Council thus strongly supports this already authorized, already heavily funded conservation undertaking: first because it meets our imperative human water resource need, and second because it does so in the environmentally best way. It will be a lasting environmental asset for our area.

We strongly urge the Subcommittee to reaffirm your original action launching this permanent internal improvement. We have now spent over sixty ($60) million of our country's money on it. It will conserve and preserve the limited water and related land resources of our area. It will do much to promote its general welfare. It will do much to preserve our area as "America the beautiful."

* * * * *

* * * * *

Our involvement in this mainstem impoundment's past, and its premises, goes back to and beyond the United States Supreme Court Delaware River Decree of 1954. You will find this Council's southeastern Pennsylvania-southern New Jersey commerce and industry fully profiled, as "Delaware Valley U.S.A.", in the REPORT OF THE SPECIAL MASTER in that U.S. Supreme Court litigation. The Delaware Valley Council is a civic organization, established as a non-profit corporation to help plan, develop and improve a 15-county area in Pennsylvania, New Jersey and Delaware as an integrated economic unit called the Delaware Valley Region. We serve as a unifying force to promote the betterment of life in our region, for all of our citizens, through the orderly growth and development of our resources and economy. Our Directors, of government and business officials, are listed on the attached.

Earlier this year, in an effort to inform certain people who had previously acted to discredit this mainstem impoundment (before understanding that its construction is the essential precondition to continuance now of their mainstem withdrawal under that Decree), we published a research memorandum titled: IN-BASIN AVAILABILITY OF UP TO 100 MILLION GALLONS A DAY OF DELAWARE RIVER WATER PENDING NEW JERSEY PERFORMANCE OF "SPECIFIED CONDITION" FOR ITS TRANS-BASIN DIVERSION.

As can be seen from that memorandum, copy attached, the bill S 3106 to destroy this authorized impoundment (for additional river recreation only), directly destroys the mainstem conservation impoundment precondition imposed by that Decree for our continued interstate sharing of the Delaware's limited waters.1/

We respectfully request that you include a copy of that memorandum in this record you are making for your consideration of S 3106. Here we would like (I) to summarize that memorandum for you, and (II) address a recent lawyer's letter, from the group urging destruction and prohibition of this impoundment, saying that this memorandum's point is "of no legal merit."

I.

(A). Use of the Delaware River's interstate waters by its four Basin States is governed by the US Supreme Court Delaware River Allocation Decree of 1954. During the litigation that eventuated in it, New Jersey agreed to cease its opposition to New York's requested additional withdrawal

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1/ That "additional river recreation" would be additional to Tocks Lake's adjoining seventy-five (75) uninterrupted Delaware River mainstem miles already earmarked for river recreation, only, by Sec. 5 of the Wild and Scenic Rivers Act of 1968.

of the Delaware's water (for use beyond the Basin in New York City), if New York would legally support New Jersey's request to withdraw 100 million gallons a day from the Delaware (for use beyond the Basin in northern New Jersey). One difference between the two requests is that New York undertook to compensate the Basin for its withdrawal, whereas New Jersey did not.[1/] Pennsylvania agreed to New York's compenstated withdrawal, but not to New Jersey's. Pennsylvania refused to consent to New Jersey's unless it agreed to enact legislation, and have included in the final US Supreme Court Decree a provision, for construction by Pennsylvania, with New Jersey participation if it wished, of an impoundment across the Delaware mainstem at Wallpack Bend (six miles above Tocks Island) -- to compensate Pennsylvanians in-basin, in "Delaware Valley U.S.A." downstream, for the depletive effect of northern Jersey's 100 mgd trans-basin withdrawal upstream.

(B). New Jersey promptly agreed and promptly enacted such legislation. On the unanimous consent of New Jersey

---

1/ New York undertook to release from its own upper Basin storage impoundments enough water to the mainstem first, legally (before diverting any trans-basin over to NYC), to prevent the Delaware's flow to the downstream States from ever falling below a certain level.

and the other States, the provision was included in the final US Supreme Court Decree, and Pennsylvania thereupon commenced acquiring Wallpack Bend's dam and reservoir land. Except for reservoir length, 26 miles, Wallpack would be the same as Tocks Lake, but would not provide its flood protection.

(C). Following the Delaware's 1955 flood disasters, this Subcommittee requested the Corps of Engineers to make a comparative determination of constructing the multipurpose impoundment at or near "Wallpack Bend or Tocks Island". And in 1957 the Corps reported Tocks was by far the superior development.

(D). Following years of additional study, and hearings by the Corps and the States around the Basin and in Washington, in October 1962 this Subcommittee, Congress, and President Kennedy, with the support of New Jersey and the other States, authorized construction of the impoundment at Tocks Island. This was done, of course, with New Jersey and the other States' knowledge and consent that, although Tocks fully submerges and precludes the Wallpack impoundment, Tocks similarly and better serves Wallpack's Decree purpose of protecting in-basin Pennsylvania (and southern Jersey) downstream, against the depletive effect of northern New Jersey's uncompensated 100 mgd mainstem trans-basin withdrawal upstream.

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(E). The rest, to the present, you know as well as we. We refer to the long line of official actions by the State of New Jersey, some by itself, some by it acting through our Federal-State Delaware River Basin Commission, requesting Congress, and implementing its actions, to finance and otherwise advance Tocks Island mainstem impoundment -- including New Jersey's official request for now Federal ownership of New Jersey and other land, needed for Wallpack, for United States Tocks Island mainstem impoundment and recreation area, precluding Wallpack.

(F). The rest, which you may not know, detailed in the memorandum, is that New Jersey's sudden "present opposition" to completion of this unanimous consent substitute impoundment for the Decree-required impoundment, now leaves us indefinitely vulnerable to the now serious depletive in-basin effect, in Delaware Valley downstream, of New Jersey's uncompensated trans-basin diversion upstream.

(G). These depletive in-basin effects, identified in the memorandum, and explained in more detail in City of Philadelphia's testimony, are real, are present today, and are worsening for our future. Pennsylvania cannot indefinitely "defer" its in-basin people's health and economic welfare to New Jersey's trans-basin convenience; by the Supreme Court Decree New Jersey

cannot continue its trans-basin diversion thereunder where New Jersey frustrates fulfillment of its chosen impoundment that is its Decree precondition to its Decree diversion.

This being so, should New Jersey officially decline Pennsylvania's official request (when made,) to support construction of this unanimous consent mainstem impoundment, it is Pennsylvania's option to obtain U.S. Supreme Court enforcement of its Decree requirement that New Jersey (i) join with Pennsylvania in requesting Congress to launch impoundment construction now, or (ii) suspend its trans-basin diversion of up to that 100 mgd of the mainstem pending New Jersey's good faith request to Congress that it do so.

Our 1961 Federal-State Delaware River Basin Compact expressly provides, at our four States' insistence, that this Decree shall remain unaltered, and observed, for 100 years. And the Decree itself provides for enforcement proceedings (unimpeded by any DRBC action,) to insure that its conditions are observed. Suspension of New Jersey's upstream trans-basin diversion will end its depletive effect that it is now having, and increasingly will have, in

Delaware Valley in-basin downstream.[1/]

It is with reluctance, but with obligations to the health and economic welfare of our in-basin people, that Pennsylvania faces this choice -- forced by those who would have you destroy, or indefinitely "defer", this authorized impoundment. For it is with deep reluctance that we would abandon our great, Supreme Court achievement for the interstate sharing of this mainstem "necessity of life" in the Delaware Basin. In our continuing hope that it not become necessary to do so, we strongly urge you to reject this ill-considered proposal, S 3106.

II.

On July 26 a group supporting S 3106 submitted a short opinion letter for your record, saying that the attached memorandum's point concerning New Jersey's prior obligation

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1/ New York's unwillingness or inability to conform to its Decree release requirement, to Pennsylvania and others downstream, heightens Pennsylvania's inability to endure New Jersey non-conformance with its Decree requirement to Pennsylvania.

(We note New Jersey's present Governor says New Jersey may have certain potential "low cost" alternative intrastate sources of water supply that New Jersey's people can finance and develop themselves to meet their own needs, only. He has ordered another study, to see whether those alternatives are physically, economically, environmentally, financially, and politically feasible for New Jersey's people.)

under the Supreme Court Decree "is of no legal merit".[1/]

It is this letter's limited conclusion that: New Jersey may now perpetuate its uncompensated trans-basin diversion -- irrespective of its depletive in-basin effect on downstream Pennsylvania -- because in 1953 New Jersey enacted legislation providing for New Jersey condemnation of then-New Jersey-owned land for Wallpack mainstem impoundment!

Clearly, the Supreme Court Decree requires more in these premises. The problem with that letter's conclusion is: it does not deal with reality; it stops where the problem starts. Apart from the matter of ethics, and the important decencies of good faith, the equitable intent of Supreme Court unanimous consent decrees are not so interpreted, or enforced. Where New Jersey chose to support a substitute for an impoundment precluding another made the precondition of a New Jersey diversion, as New Jersey obstructs creation of that substitute,

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1/ Note. Before addressing this opinion letter, we point out it only attempts to discuss whether New Jersey acted to substitute Tocks Island mainstem impoundment for Wallpack mainstem impoundment.

It completely avoids discussing this bill's total wipe out (by legislating this entire mainstem reach to additional river recreation, only,) of the U.S. Supreme Court Decree requirement itself: that this mainstem reach be impounded, to permit allocation of the Delaware's limited water among all States dependent upon it!

Respectfully, we question whether the sponsor of S 3106 understands it.

obviously New Jersey is not free to make that diversion.

Specifically here, this letter indicates the answer to its own anomalous conclusion. Its author says (page 2): "As far as I am advised, New Jersey has not...taken any action to prevent or discourage...building the Wallpack Bend dam"; "I can find no reference to any action taken officially by the State of New Jersey to agree to the Tocks Island dam as a substitute."

The short answer to this letter opinion is: its author was not well "advised"; such "action", and "references" thereto, abound. Illustratively, "action(s) taken officially by the State of New Jersey to agree to the Tocks Island Dam as a substitute" for Wallpack include:[1/]

> Official action by "the State of New Jersey...join[ing] with the Commonwealth of Pennsylvania" adopting the DRB Comprehensive Plan required by statute for Delaware waters, the foundation of which Plan is Tocks Island mainstem impoundment ("preventing Wallpack Bend dam"), such official action having been taken by New Jersey prior to congressional authorization of Tocks Island mainstem impoundment (March 1962).
>
> Official action by "the State of New Jersey...join[ing] with the Commonwealth of Pennsylvania in requesting" Congress to authorize construction of Tocks Island mainstem impoundment ("preventing Wallpack Bend dam") (August 1962).

1/ Pursuant to New Jersey law adopting the DRB Compact as New Jersey law, actions taken by New Jersey through DRBC for Delaware River waters are "actions taken officially by the State of New Jersey".

Official action by "the State of New Jersey...join[ing] with the Commonwealth of Pennsylvania in requesting" Congress to authorize Tocks Island mainstem impoundment's surrounding recreation area (each "preventing Wallpack Bend dam") (1962-1965).

Official action by "the State of New Jersey...join[ing] with the Commonwealth of Pennsylvania" providing Federal assurance for repayment of Tocks Island mainstem impoundment water supply storage cost pursuant to the Water Supply Act of 1958 (1965).

Official action by "the State of New Jersey...join[ing] with the Commonwealth of Pennsylvania in requesting" Congress appropriate Federal funds for United States construction of and/or purchase and ownership of land for Tocks Island mainstem impoundment and its recreation area (1964 through 1976).

* * * * *

Before concluding, we call the Subcommittee's attention to an important additional error of that opinion letter. At page 1 it states: New Jersey's present Governor expressed "...his opposition to present construction" of Tocks Island by so "voting in the Delaware River Basin". As the attached memorandum makes incontestably clear (pages 11-16): "THERE HAS BEEN NO DRBC AGENCY ACTION ON MAINSTEM IMPOUNDMENT CONSTRUCTION".

To be sure, there should have been. Had there been, by the DRBC's own, agency required due process procedure -- permitting illumination of this matter on its merits -- we are confident that this great, creative undertaking launched

by this Subcommittee would now be well on its way to completion, to improve the quality of the human environment of the working and other people of our area for whom it was authorized.

To this Subcommittee (that with higher hopes held the hearings, favorably reported, and secured enactment of the bill that became the Delaware River Basin Compact, and today maintains standing oversight jurisdiction of the agency it created), we believe that this due process difference the memorandum explains is a meaningful one.

In conclusion, again we strongly urge the Subcommittee to reaffirm your original action launching this permanent internal improvement. We have now spent over sixty ($60) million of our country's money on it. It will conserve and preserve the limited water and related land resources of our area. It will do much to promote its general welfare. It will do much to preserve our area as "America the beautiful."

* * * * *

Attachments (2):

"DELAWARE VALLEY COUNCIL, 1976 OFFICERS AND DIRECTORS 1977".

"IN-BASIN AVAILABILITY OF UP TO 100 MILLION GALLONS A DAY OF DELAWARE RIVER WATER PENDING NEW JERSEY PERFORMANCE OF "SPECIFIED CONDITION" FOR ITS TRANS-BASIN DIVERSION".

delaware
valley council *Progress through cooperation*
1203 fox building · 1612 market street · philadelphia, pa. 19103 · (215) locust 3-7835

...of the Board
...AN S. HOOPER
...Old Transport Co.
...of the Board
...T. HUDSON
...Brenneman Co.
...HAAB, JR.
...President
...Haab Company, Inc.
...President
...W. BURK
...Manager, Gulf Oil, U.S.
...President
WILLIAM S. COWART, JR.
...President
...Atlantic City Electric Co.
...President
...H. ANDERSON
...Fedor & Anderson
...Lighterage Company
...President
MACDUFF SYMINGTON
...President
...Philadelphia National Bank
...President
...B. STEWART
...Henry Stewart Company
...BERRY BALDWIN
...Officer, Girard Bank
...Treasurer
...ROBERT SHEFFLER
...Federal Savings &
...Philadelphia
...CLARY, ESQ
...Secretary
...McGARRY

As one interested in the welfare of the Delaware Valley, you may be interested in the attached memorandum -- dealing with the occasionally conflicting, continuously compatible interests of the four Delaware Basin States in the waters of the Delaware River mainstem.

Some forty-five years ago, these four were reminded in an Opinion by an esteemed Associate Justice of the United States Supreme Court, Mr. Oliver Wendell Holmes, that:

> the Delaware "river is more than an amenity, it is a treasure. It offers a necessity of life that must be rationed among those who have power of it."

And by that Opinion, still inspiring today, we were taught that all four "have real and substantial interests in this River that must be reconciled at best they may be."

Since then, in this spirit, to the recent present all four have worked to reconcile our "real and substantial interests" in these treasured waters, now rationed among us by Supreme Court Decree today.

The attached is made available as part of this Council's continuing efforts to conserve this "necessity of life" in the Delaware Valley.

DELAWARE VALLEY COUNCIL
FOX BUILDING - SUITE 1800
1612 MARKET STREET
PHILADELPHIA, PA. 19103

IN-BASIN AVAILABILITY OF UP TO 100 MILLION GALLONS A DAY OF DELAWARE RIVER WATER PENDING NEW JERSEY PERFORMANCE OF "SPECIFIED CONDITION" FOR ITS TRANS-BASIN DIVERSION

Page

I. THE SUPREME COURT DELAWARE RIVER DECREE PROVIDES NEW JERSEY SHALL SUPPORT CONSTRUCTION OF A DELAWARE MAINSTEM STORAGE IMPOUNDMENT, AS THE "SPECIFIED CONDITION" OF NEW JERSEY TRANS-BASIN WITHDRAWAL OF UP TO 100 MGD FROM THE DELAWARE WITHOUT COMPENSATING RELEASES BACK TO THE RIVER..... 1

II. WITH NEW JERSEY CONSENT, AND PENNSYLVANIA CHANGE OF UNRECOVERABLE POSITION BASED THEREON, CONGRESS DIRECTED CONSTRUCTION OF MAINSTEM STORAGE IMPOUNDMENT AT TOCKS ISLAND IN LIEU OF WALLPACK BEND..... 5

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NOTE: THERE HAS BEEN NO DRBC AGENCY ACTION ON MAINSTEM IMPOUNDMENT CONSTRUCTION..... 11

* * * * *

January 1976

IN-BASIN AVAILABILITY OF UP TO 100 MILLION GALLONS A DAY OF DELAWARE RIVER WATER PENDING NEW JERSEY PERFORMANCE OF "SPECIFIED CONDITION" FOR ITS TRANS-BASIN DIVERSION

The attached memorandum has four parts.

PART ONE covers that provision of the U.S. Supreme Court Delaware River Decree making any New Jersey trans-basin diversion of up to 100 mgd from the Delaware, contingent upon New Jersey supporting construction of a large mainstem water conservation impoundment at Wallpack Bend just above Tocks Island, to protect (by unanimous Decree consent) Pennsylvania against the depletive effect of New Jersey trans-basin diversion.

PART TWO covers Pennsylvania's change of its now unrecoverable position, based on New Jersey's subsequent consent and support of diverse Acts of Congress, authorizing and financing such mainstem impoundment and land recreation area at Tocks Island in lieu of Wallpack, precluding Wallpack.

PART THREE covers Pennsylvania's request and a New Jersey Governor's recent refusal to support mainstem impoundment construction; Pennsylvania in-basin's need for additional assured mainstem flow now; and the capability of that impoundment, or that mainstem flow now being diverted to trans-basin New Jersey, to meet this Pennsylvania in-basin need. It documents that:

> New Jersey having refused performance of the mainstem impoundment precondition to New Jersey trans-basin diversion, Pennsylvania may request New Jersey either to support such impoundment, or to suspend trans-basin diversion.
>
> New Jersey declining both, Pennsylvania may obtain from the U.S. Supreme Court relief against continued New Jersey trans-basin diversion.
>
> Exercise of this prior Pennsylvania in-basin right (specifically preserved by special New Jersey enactment, New Jersey-Pennsylvania contract, Supreme Court Decree, Basin State Compact,) cannot be frustrated, or judged, by another State, or States, acting separately, together, or jointly as the DRBC agency.

PART FOUR is a NOTE documenting that, despite claimsto the contrary, there has been no DRBC agency action on mainstem impoundment construction.

(The attached does not explore, as not here relevant, that New Jersey Governor's averment that trans-basin New Jersey has numerous potential "low cost" alternatives to meet its need.)

DELAWARE VALLEY COUNCIL
FOX BUILDING-SUITE 1203
1612 MARKET STREET
PHILADELPHIA, PA. 19103

I. THE SUPREME COURT DELAWARE RIVER DECREE PROVIDES NEW JERSEY SHALL SUPPORT CONSTRUCTION OF A DELAWARE MAINSTEM STORAGE IMPOUNDMENT, AS THE "SPECIFIED CONDITION" OF NEW JERSEY TRANS-BASIN WITHDRAWAL OF UP TO 100 MGD FROM THE DELAWARE WITHOUT COMPENSATING RELEASES BACK TO THE RIVER

Section V.A. of the Supreme Court Decree of 1954 authorizes New Jersey to divert from the Delaware River, without compensating releases back to the River, for use "outside the Delaware River watershed", not more than "100 m.g.d., if" New Jersey:

> does not repeal NJ Act 1953-443 before July 1955 (authorizing Pennsylvania to occupy New Jersey land for a large mainstem water storage dam and reservoir across the Delaware at Wallpack Bend, shortly upstream of Tocks Island), and
>
> after Pennsylvania accepts this NJ Act conditions, New Jersey joins Pennsylvania in seeking congressional consent for such interstate impoundment.1/

* * * * *

New Jersey did not repeal Act 1953-443. At Sec. 1 it reads:

> "Subject to the provisions of this act, authority [by New Jersey] is given to the Commonwealth of Pennsylvania

---

1/ Decree Section V, "Diversions by New Jersey Authorized Under Specified Conditions."

(Section V.B., not pertinent here, authorizes New Jersey to make additional trans-basin diversions from the Delaware (usually called 300 mgd,) if New Jersey finances additional storage and makes compensating releases from it back to the River. And, Section V.B. repeats, the total trans-basin amount New Jersey may divert under Section V.A, "without compensating releases" if it supports this mainstem impoundment above Tocks, "shall not exceed an average of 100 m.g.d.")

State of New Jersey, Complainant, v. State of New York and City of New York, Defendants, Pennsylvania and Delaware, Intervenors, 347, U.S. 995 at 1001, 98L ed 1130 (June 7, 1954).

> or, through it, to any commission or other public body or municipality singly or collectively designated by the Legislature of said Commonwealth to construct and maintain a storage dam across the Delware river at or near the area known as Wallpack Bend, but above the confluence with Flatbrook, and including the works and appurtenances of said dam and to maintain the reservoir above said dam for the purpose of impounding the waters of said river...".
>
> And at Section 19 that: "This act shall become effective when the Commonwealth of Pennsylvania shall, prior to July first, one thousand nine hundred and fifty-five, by statute, accept the terms and conditions of this act...".

On June 30, 1955, in reliance on NJ Act 1953-443, and Supreme Court Decree Section V.A., Pennsylvania approved Act. No. 69, adopting all NJ Act 1953-443 conditions, and authorizing Pennsylvania to build Wallpack Bend Dam and Reservoir.

As designed for construction, Wallpack Bend Dam, seven miles above Tocks Island, is 1,850 feet long from shore to shore. Its Reservoir Lake, elevation 420, is 26 miles long, extending up to Port Jervis, with 372,000 acre-feet storage, 93-200 inactive, 279,000 active. It serves water supply, flood control, hydroelectric power, and lake recreation. Including fish passage facilities and power penstocks, but not specific power facilities operated by private industry, its cost at August 1955 price levels is $70.5 million. The Reservoir's "scenic beauty" provides "ideal recreation".[1/]

Following further hearings, in April 1956 Pennsylvania with its own funds commenced land acquisition in Pennsylvania for Wallpack Bend Dam and Reservoir.

* * * * *

The New Jersey and Pennsylvania final briefs in this Supreme Court litigation, and the Report of the Special Master, explain why the Decree expressly makes NJ's 100 mgd trans-basin withdrawal subject to construction of a Delaware mainstem storage dam and reservoir for in-basin protection.

1/ Report to the Commonwealth of Pennsylvania Department of Forests and Waters on Wallpack Bend Dam and Reservoir on the Delaware River at Bushkill, Pennsylvania, Albright & Friel (September 1, 1955).

At the outset of this litigation, Pennsylvania and New Jersey both objected to NY's proposed formula in its original 1952 petition, under which NY would make certain additional releases for the mainstem to compensate for NY's proposed additional trans-basin withdrawals from the Delaware. After months of negotiations in 1952 between NY and NJ, only, early in 1953 they reported the so-called Montague formula, plus their special, separate New Jersey-New York:

> "agreement [that] eliminates the possibility of either New York City or New York State offering any objections to diversion of water from the Delaware below Montague by the State of New Jersey" (NJ Exhibit No. 1, NJ v. NY, supra.)

After studying it, Pennsylvania opposed it. Later Pennsylvania consented to NJ also diverting this 100 mgd out of the Basin, without compensating releases to the River, if -- to enable the River to meet Pennsylvania's growing in-basin needs -- NJ enacts legislation to enable Pennsylvania to build a storage dam and reservoir across this interstate boundary stream at Wallpack Bend, occupying New Jersey (as well as Pennsylvania) land to be condemned by New Jersey.

NJ agreed, and in May 1953 undertook to have such legislation enacted. As Pennsylvania's position on this NJ diversion depended on enactment or non-enactment of this NJ legislation, the proceedings were then postponed. The NJ legislation was enacted December 30, 1953 (NJ Exhibit No. 15) and the proceedings resumed February 19, 1954.

Concluding, shortly thereafter:

> New Jersey Final Brief, April 1954 (at 14-15): "By the passage of Laws of 1953, chapter 443, by its legislature in November and December of 1953, the State of New Jersey has removed all legal barriers to enable the construction and maintenance by the Commonwealth of Pennsylvania, of a dam and reservoir across the Delaware River at Wallpack Bend for the storage of river waters." And,
>
> "In consideration of the enactment of this legislation by the State of New Jersey, the Commonwealth of Pennsylvania has recognized the claim of New Jersey to withdraw one hundred million gallons of water daily on an annual average

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from the Delaware River or its tributaries, for use outside of the Delaware River watershed, without any requirement of compensating releases on the part of the State of New Jersey."

Pennsylvania Final Brief, May 1954 (at 44-45): "New Jersey's Act was passed as a result of Pennsylvania's agreement not to oppose New Jersey's application for the diversion of 100 m.g.d. as above set forth. The New Jersey Act was passed and was approved by Governor Driscoll on December 30, 1953." And,

"Pennsylvania also wishes to make it clear that it does not concede that New Jersey has any historical or prescriptive right to divert any water from the Delware River watershed into another watershed."1/

New York, New York City Final "Supplemental Memorandum", April 1954 (at 14): "To that [100 mgd uncompensated mainstem] diversion by New Jersey, Delaware and Pennsylvania have not objected. The New Jersey statute opened the way for the lower basin to obtain a substantial amount of water for the water supply purposes of the greater Philadelphia area."

Special Master, Final Decree Recommendation, May 27, 1954 (at 108): "The amended decree also...permits the diversion by New Jersey of 100 m.g.d. without compensating releases upon the conditions which were negotiated between New Jersey and Pennsylvania." And

US Supreme Court Decree of 1954 (347 U.S. at 1001): The "Specified Condition" (Decree Section V.A. at page 1 herein), is that as condition of New Jersey diverting from the mainstem or its tributaries for trans-basin use up to 100 mgd without compensation, New Jersey shall permit and support construction of a mainstem conservation impoundment at Wallpack Bend, above Tocks Island, to serve Pennsylvania in-basin needs.

This Final Decree, entered June 7, 1954, is a unanimous consent Decree, consented to by New Jersey particularly, and New York as well. Each accepted this "special condition" -- to protect

---

1/ The Decree affirmed, thus, only existing uses "not involving a diversion outside the Delaware River watershed" (Sec. VI, 347 U.S. at 1002, emphasis added).

Pennsylvania's in-basin needs downstream from those States' withdrawals upstream -- as a reciprocal condition of their depletive diversions of the Delaware mainstem. All required congressional consent was granted.

In 1961 the States by contract further unanimously agreed these Decree conditions shall endure unaltered for 100 years (PL 87-328, Delaware River Compact).

New Jersey now is withdrawing over half of this 100 mgd and, noted later, is making construction plans to withdraw the remainder.

II. WITH NEW JERSEY CONSENT, AND PENNSYLVANIA CHANGE OF UNRECOVERABLE POSITION BASED THEREON, CONGRESS DIRECTED CONSTRUCTION OF MAINSTEM STORAGE IMPOUNDMENT AT TOCKS ISLAND IN LIEU OF WALLPACK BEND

Shortly after Pennsylvania's enactment June 30, 1955 of Act No. 69, the Delaware River flooded disastrously (Presidential Disaster Declarations, August 20, 22, 1955).

At the Delaware Basin States' request, Congress promptly ordered a comprehensive survey of the Basin for flood control, water supply, and other purposes. In addition, at these States' request Congress on February 26, 1956 ordered a determination made of "the feasibility of construction and operation of a reservoir on the Main Stem of the Delaware River above Delaware Water Gap near Wallpack Bend or Tocks Island."

On February 6, 1957 the Corps reported to Pennsylvania's Governor that "Tocks Island dam site has a number of advantages over the Wallpack Bend" Project, including:

Tocks Island has greater effective storage for Basin flood control, water supply and other known water resource requirements. This greater storage is "an asset of great value in this highly developed valley".

Its cost per acre foot is only half as much as Wallpack.

Tocks provides "enhanced recreational opportunities" over Wallpack.

Subsequently, following completion of the comprehensive survey, hearings on it around the Basin States, and in Washington, and

on the unanimous consent and approval of the State of New Jersey and other Basin States, Congress in October 1962 directed construction of the mainstem impoundment at Tocks Island, PL 87-874. Senator Case (NJ) urged Tocks Island's "immediate authorization" for its needed: "flood control, water reserves, hydroelectric power, recreational facilities, navigation and a variety of other benefits of incalculable long range importance to the development of the Delaware River Valley and the welfare of its people." (Senate Hearings on Rivers and Harbors - Flood Control, Part I, page 379 (August 1962)).

Thus, on NJ (and other States') consent, and PA. reliance thereon, this unanimously agreed replacement of Wallpack technically and in actual fact precludes Wallpack. And now the land in New Jersey (and Pennsylvania) required for Wallpack is owned by the U.S.A.

This unanimously agreed replacement of Wallpack fulfills the mainstem impoundment condition, required by Decree Section V.A, for New Jersey's trans-basin withdrawal of up to 100 mgd from the mainstem. This unanimously agreed replacement of Wallpack (i.e., the allocable part of Tocks conservation storage repayable by New Jersey consumers in the future, at only 3 1/4% interest,) also provides mainstem storage for those "compensating releases" New Jersey, by Decree Section V.B, footnoted at page 1 here, must finance to make its needed future additional trans-basin withdrawals from the Delaware River system.

To date, Congress and the Executive Branch have already spent well over $100 million of public funds for this mainstem conservation impoundment, and its surrounding land recreation area. Nearly $60 million is for its dam and lake.

III. NEW JERSEY OBSTRUCTION OF MAINSTEM IMPOUNDMENT REQUIRES SUSPENSION OF NEW JERSEY TRANS-BASIN WITHDRAWALS FROM THE MAINSTEM

On July 31, 1975 New Jersey's Governor announced his personal opposition to construction of mainstem impoundment now. He said: (a) for the next 25 years or so trans-basin New Jersey will not need any mainstem water conserved by this impoundment; (b) in trans-basin New Jersey there are numerous potential "low cost" water supply sites capable of meeting its increasing needs there; (c) New Jersey is going to finance and build them. (d) He opposed any construction now under special agreement that Pennsylvania repay all this impoundment's cost allocated to water supply. (e) To insure its availability to meet New Jersey water needs after 25 years, he opposed any deauthorization of this impoundment.

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As noted later, that Governor's obstruction -- strongly opposed by Pennsylvania -- was not action or obstruction by the Delaware River Basin Commission.

Assuming New Jersey could finance and construct its claimed trans-basin alternatives, that is irrelevant to its Decree duty to support mainstem impoundment, if it would continue diverting up to 100 mgd from the mainstem to trans-basin New Jersey. If it wants to do so, it has to support mainstem impoundment. That Governor apparently was not aware of this. 1/

This mainstem impoundment that Governor is obstructing is the New Jersey-agreed substitute for Wallpack, not Wallpack, of course. For purposes of determining whether New Jersey may divert that 100 mgd, and reject the Supreme Court precondition of doing so, that impoundment distinction is not meaningful. Tocks impoundment and recreation area, advanced on New Jersey consent and knowledge, and Pennsylvania reliance thereon, to the present: (1) replaced Wallpack legally and otherwise, (2) makes Wallpack impossible now. Having thus acted intentionally to preclude mainstem impoundment, whose support the Decree makes the precondition of New Jersey trans-basin diversion, New Jersey cannot make that trans-basin diversion.

To attempt to do so is (ignoring ethics,) to attempt to repudiate New Jersey's own enacted sovereign undertaking not to do so, and the express language -- and the evident legal equities -- of the U.S. Supreme Court Decree prohibiting it from doing so. It is also to attempt to subordinate Pennsylvania in-basin needs, to New Jersey trans-basin convenience.

1/ For example, one of his claimed "trans-basin alternatives" to the mainstem impoundment is New Jersey's full withdrawal of the 100 mgd (whose trans-basin diversion requires New Jersey to support construction of the mainstem impoundment): New Jersey now uses over sixty of this 100 mgd, daily. It plans: (a) to reconstruct its Delaware diversion canal to take the rest, and (b) to construct a new balancing reservoir, "Six Mile Run", to store it in. (New Jersey's bond referendum to finance this canal reconstruction, $10 million, was publicly defeated in November 1975.)

(The "additional" New Jersey trans-basin water supply needs that Governor speaks of, are "additional" to those New Jersey trans-basin needs now being met by its mainstem withdrawal of up to this 100 mgd.)

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As for Pennsylvania's growing in-basin needs for the mainstem:

(A). PENNSYLVANIA'S FINAL BRIEF TO THE SUPREME COURT, MAY 1954: "The keynote of Pennsylvania's position...[in this Decree litigation] was sounded, and the fundamental purpose and nature of the Pennsylvania proofs were revealed, in the testimony of Consulting Engineer Greeley***

> "Greeley testified that probably [by 1968,] eight to ten years before the critical year of 1978, when the net available quantity of river water would be insufficient to supply the water needs of the Pennsylvania and lower New Jersey inhabitants of the basin, it would be necessary to reconsider the river problem, including the proposed total diversion by New York and New Jersey," at 64-65. (As noted, page 4 here, this Pennsylvania forecast assumed the Decree condition prescribing mainstem impoundment for Pennsylvania in-basin protection against those New York, New Jersey trans-basin diversions upstream.)

(B). DELAWARE BASIN DROUGHT DISASTER, PRESIDENTIAL DECLARATION, AUGUST 1965, including New York's suspension of its upper Delaware Basin reservoir releases to the mainstem, needed in-basin downstream, required by the Decree as the condition of New York's trans-basin diversion upstream. US Interior Department Secretary:

> This impoundment, "Tocks Island Dam on the mainstem of the Delaware [just below its New York border,]...is an opportunity for this very region that is suffering most now to permanently solve its problems...[of water supply deficiency]. If we had Tocks Island Dam in today, just this one dam on the mainstem... you would have no problem because you would have the storage" this impoundment provides. (Senate Interior And Insular Affairs Committee Hearings on Northeast Water Crisis (September 1965)).

Basin State Senators similarly stressed this impoundment's tance in authorizing its surrounding land recreation area, PL 89-158, in August 1965 (Cong. Rec. 20423). 1/

1/ Senator Case (NJ): "Part of the acreage would be used to create a 37-mile-long reservoir to be used for water supply, flood control, hydroelectric power and, of course, recreation. In view of the drought which has parched our part of the country for more than 4 years, it is clearly necessary that additional water resources be developed as quickly as possible."

(Footnote continued next page.)

(C). PENNSYLVANIA IN-BASIN REQUIREMENTS, 1975 AND FORWARD.
For example:

(1) City of Philadelphia's $360 million mainstem water pollution control works require assured firm mainstem flow, assured by the mainstem impoundment. Absent this, City of Philadelphia now must finance additional pollution control works, or endure increased mainstem pollution during mainstem seasonal and other low flow periods.

(2) Pennsylvania in-basin needed new and replacement economic plant requires over its long amortization, employment, output period assured firm water supply at reasonable cost, assured by the mainstem impoundment. Absent this, the economics of such needed in-basin investment now are discouraged or impaired.

1/ Footnote continued from preceding page.

Sen. Scott (PA): "Mr. President, it is well known that the States comprising the Delaware River Basin -- Pennsylvania, New Jersey, and Delaware -- are suffering from a serious water shortage resulting from 4 successive years of drought conditions. The day before yesterday at the White House, the Governors and Senators from these States met with the President...to consider this grave problem."

Sen. Kennedy (NY): "Tocks Island Reservoir will provide highly needed additional water storage capacity for Philadelphia and other cities along the Delaware. If the Tocks Island Reservoir were in existence today, Philadelphia and Camden would not be facing as critical a water problem as they now do. The action taken yesterday...means that Tocks Island Reservoir will be ready."

Sen. Javits (NY): That White House meeting was important to "the Delaware River Basin on which New York depends for about 50 percent of its water. Indeed, it is said that if the [Tocks] project were completed we might have no water problem. So it is critically important."

(3) Pennsylvania in-basin needed new and replacement baseload thermal electric power plants require cooling water supplied by assured firm mainstem flow, assured by the mainstem impoundment. Absent this, their construction now is prohibited, unless they commit to reduce output, or are able to finance and construct separate reservoirs to supply cooling water for operation during mainstem seasonal and other low flow periods.

(4) Pennsylvania in-basin increased domestic, municipal and other demands require additional firm supplies of water of acceptable quality at reasonable cost, assured by the mainstem impoundment. Absent this, Pennsylvania in-basin supplies now are faced with increased mainstem water processing costs, including desalination, for its seasonal and other low flow periods.

Pennsylvania in-basin's increased water needs are legally fundamental to its citizens' welfare. They can be met:

From the mainstem impoundment, that New Jersey must support as the condition of continuing to divert up to 100 mgd of mainstem flow trans-basin, Or, for a while,

From the 65 mgd increase in mainstem flow on suspension of New Jersey's existing trans-basin withdrawal thereof, on obstruction of the mainstem impoundment.

The existing lack of assured firm mainstem flow now increases consumer and other costs of Pennsylvania in-basin citizens.1/

CONCLUSION

Accordingly, to protect its in-basin citizens' welfare, in these premises Pennsylvania:

May request New Jersey officially to support construction of the mainstem impoundment now, or to suspend trans-basin withdrawals from the mainstem.

If New Jersey declines to support such construction now and to suspend trans-basin withdrawals, may exercise its right (specifically preserved by PA-NJ contract, Decree Secs. V.A. and X, and

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1/ As noted, page 6, New Jersey's Governor avers trans-basin New Jersey has numerous "low cost" alternatives to meet its own needs.

Compact Sec. 3.4,) to obtain from the US Supreme Court relief against continued New Jersey trans-basin withdrawals from the mainstem.

This existing Pennsylvania in-basin right, to New Jersey support of the impoundment or to non-diversion of mainstem flow trans-basin (preserved by enactment, contract, Decree, and Compact), cannot be obstructed or otherwise impaired by another State or States, acting separately, together, or jointly as the Delaware River Basin Commission.

* * * * *

NOTE: THERE HAS BEEN NO DRBC AGENCY ACTION ON MAINSTEM IMPOUNDMENT CONSTRUCTION

Tocks Island impoundment, authorized as the only impoundment of the 300-mile Delaware mainstem, is the foundation of the Basin's "comprehensive plan" (for conservation of its waters and related land,) approved by Congress and the four-State Delaware River Basin Commission. Of those four States, Pennsylvania accounts for slightly over fifty percent of the Basin's area. The other three, NY, NJ, Del., contribute the remainder.

The Delaware River Basin Compact creating that Commission says "no project" affecting Basin waters can be undertaken without this Commission's approval. The Compact specifies the way (the only way,) this Commission's required approval, or disapproval, of any such project must be effected. Sec. 3.8, 75 Stat. 694, says the Commission must "approve" or "modify" or "disapprove" any such project, based on Commission "findings" and "determinations", made pursuant to prescribed procedure, that the project would, or would not, accord with the "comprehensive plan", with the Commission decision "subject to judicial review." It further requires, 75 Stat. 708: "All meetings of the Commission [on any project, or other public business on which it acts,] shall be open to the public." The Commission is also a "Federal agency", 75 Stat. 691, S. Rept. 87-985 on S 856.

The reason for creating this Commission -- the Federal-State administrative agency needed to assure that "present and future [water resource] needs" in this most populous basin will be met -- is well known. As emphasized in August 1961 in hearings on the bill creating it:

"The development of the water resources of the Delaware is too important to be put off any longer. *** In the recent past, water problems have arisen to plague millions of residents of the Delaware valley. During World War II, Philadelphia's water supply was endangered by pollution and its harbor suffered seriously adverse effects. New York City's and northern New Jersey's water supply reservoirs were drastically depleted in the dry summer of 1949. The 1955 floods in the wake of Hurricane Diane produced loss of life and widespread damage in many sections of the Delaware Basin. The severe drought of 1957 caused heavy crop losses and water shortages in many communities." (Sen. Case (NJ) in Senate Public Works Committee Hearings on S 856).

In March 1974 DRBC formally docketed for decision the matter of its agency approval, or disapproval, of this impoundment construction, Fed. Reg. In April DRBC held an initial, one-day "public" hearing on it (at which supporting witnesses equalled more vocal opposing witnesses in number). Then in June 1974 the US House, after separate hearings, appropriated $2.4 million for this impoundment construction, subject to the pending decision. Thereupon, on July 31 -- without DRBC having reached that decision -- the New Jersey Governor's representative to DRBC suddenly asked DRBC to ask the US Senate to appropriate for another review study of this impoundment, instead. And that same day, July 31, DRBC suddenly did so.1/

1/ Beyond its one-day April "public" hearing DRBC sat through in this docket, its law and Regulations (DRBC Rules of Practice and Procedure, 18 CFR 40 et seq., 75 Stat. 694, 700, 715) further prescribe: (1) sworn testimony and exhibits on controverted facts, (2) a qualified impartial Hearing Officer, (3) rulings on the admissibility of relevant evidence, (4) direct examination and cross examination of expert witnesses, (5) avoidance of repetitive testimony, (6) an evidentiary record, (7) closing briefs and argument to the Hearing Officer, (8) a written recommended decision by him to the Commission, including his recommended, evidentiary "findings" and "determinations", (9) any objections or exceptions thereto and briefs to the Commission, (10) a formal written decision by the Commission, based on the record made, including the Commission's formal "findings" and "determinations". (11) Judicial review thereof in Federal courts, by right (as contrary to weight

(footnote continued on next page)

The Senate and later Congress obliged DRBC's New Jersey request. In August 1974 Congress appropriated $1.5 million for it, saying such review study be directed by the US Corps of Engineers with cooperation from DRBC, be completed in a year, and that a "final and definitive" recommendation then be made on this impoundment. Despite the time limit imposed on it, the Corps was not allowed to let this study start until January 1975, by a consulting firm having no previous exposure to this Basin project, and it took from January through July 1975. DRBC's staff with one or more of its alternate members arranged for occasional "public participation" hearings on installments of it as they became available.

On July 31, 1975 all four State members of DRBC met to consider this 3600-page study. Both situs States, Pennsylvania and New Jersey, strongly opposed any deauthorization of it. Pennsylvania urgently needs it now, and strongly urges its construction now. New Jersey's Governor feels first he should see if New Jersey can provide any alternatives for its trans-basin water needs, and if it can, trans-basin New Jersey may not need this impoundment's water for maybe 25 years or so, and its construction should proceed then. To repeat, both situs States urge that this impoundment be preserved and not deauthorized, but differ as to its construction timing. The two non-situs States, NY and Del, sided with New Jersey in this construction timing difference. 1/

(footnote continued from preceding page)

of the evidence, arbitrary or capricious, or otherwise illegal).

The DRBC request, and the later appropriation, for additional "review" information in no way altered this legally prescribed procedure. As it turned out, however (without informing Congress), on July 31 DRBC also ended all effort to reach its assigned agency decision, in this docketed matter, pursuant to prescribed DRBC agency procedure.

1/ Tocks Island mainstem impoundment is sited between Pennsylvania and New Jersey, only. (None of it is in the State of Delaware below. None but a very small bit of its occasional flood protection pool occasionally will affect a tiny bit of New York above, and then for but brief interval.)

This July 31, 1975 vote was only by those four States, each acting alone -- the four not functioning as the DRBC agency. There was no Federal participation. They voted in a short, "closed meeting" in a Newark hotel, with no prescribed "findings" and "determinations", the vote orally reported thereafter by that New Jersey Governor, with all including Congress left only to newspapers' claimed insights as to "what really happened".

Whatever it may have been, that was not a DRBC agency action on mainstem impoundment construction. Whatever it may have been, that was not the public procedure prescribed for discharge of the public trust imposed by public law on this public agency:

IT CANNOT BE DRBC AGENCY ACTION ON IMPOUNDMENT CONSTRUCTION. Because contrary to DRBC law: it was not arrived at pursuant to any of its agency-required procedure; it is not based on any of its agency-required "findings" and "determinations" for agency approval or disapproval; there is no agency-required decisional document to judicially review. 75 Stat. 694, 695.

IT CANNOT BE DRBC AGENCY ACTION, OF ANY KIND. Because contrary to DRBC law: it was taken in a closed meeting, 75 Stat. 708.

The answer to such fatal deficiencies (that they are irrelevant because having voted as they did, those Governors will do the same if they follow agency Compact procedure,) is unworthy of those who would presume to exercise DRBC agency authority in this matter hereafter.

* * * * *

As a concluding NOTE, it is commonly unwise to abort any agency with primary jurisdiction, abort all prescribed procedure, abort all due process of law.

However gifted some of its numerous authors, a compressed general review study and public meetings on its acceptability perforce cannot substitute for prescribed agency procedure -- prescribed because of its proven efficacy to the administration of public business. Here as elsewhere, such procedure remains the only proven process for ascertaining reality. Here as elsewhere, such remains the only proven protection against error, oversight or misrepresentation, however informed or well intentioned such appears or postures.

Used with prescribed procedure, scoped to include relevant review portions as advanced, a compressed general review and public comment may make a contribution.

Used in lieu of prescribed procedure, a compressed review and public comment can produce a huge assemblage of untested information, inevitably obscuring, mistaking or missing matters of pervasive importance.

Used in lieu of prescribed procedure, such review and comment leaves busy State and other elective officials uninformed, and unprotected against generated demands that they destroy what in truth may be a need and gain to those for whom they are responsible.1/

* * * * *

1/ On next page.

Footnote from preceding page.

An additional example of the limitations of the substitute, review approach (additional to the failure to touch the 100 mgd matter,) was the treatment of this impoundment's principal environmental criticism, the possibility of its "eutrophication", or water pollution, sensationalized by its critics.

This review documents: (a) that if this occurred, it would be primarily because of chicken farm waste draining off New York's land and reaching its part of the mainstem before it finally flows down between Pennsylvania and New Jersey; (b) that if this eutrophication occurred, this impoundment's water quality would be like that of other recreation lakes in the area; and (c) that if one wanted to preclude this possible eutrophication, New York would have to spend only $2.5 million of its Federal-State water pollution funds over the next ten years or so, to control its own, New York pollution, if it adversely affects the impoundment when built. Whereupon New York, alone of all four Basin States, recommends this impoundment be deauthorized!

What the review fails to focus is: (a) that this impoundment is needed by downstream States because, contrary to the Supreme Court Decree, in low flow years New York does not release the amount of mainstem flow to them that the Decree says it must, as precondition of diverting the upper mainstem trans-basin over to New York City. This happened repeatedly in the past, just last decade, to the great detriment of the downstream States, Delaware Basin Drought Disaster, at 8-9, supra, and is just what New York will do again on recurrence of mainstem low flows. (b) This conservation impoundment, just below New York's border, enables the mainstem to meet the downstream States' needs, also. And (c), as the Supreme Court Master emphasized here, New York has a common constitutional law duty to provide "clean" mainstem water to the downstream States. And if necessary, such is enforcible by them against New York in the Supreme Court, as other States have enforced against New York, e.g., Vermont in the case of Lake Champlain, and New York has invoked against other States, e.g., New Jersey in the case of New York harbor.

This review failed to focus and face these facts, revealing the quality of New York's recommendation -- that Congress deauthorize a downstream State impoundment, necessitated by New York's failure to discharge its Supreme Court Decree duty to them, because the integrity of their impoundment might require New York to refrain from a constitutionally, environmentally prohibited practice!

FRANK W. DRESSLER

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July 28, 1976

Senator Mike Gravel, Chairman
Water Resources Subcommittee of the
Committee on Public Works
United States Senate
4204 Dirksen Building
Washington, D. C. 20510

RE: S.3106

Dear Senator Gravel:

The purpose of this letter is to urge you to vote against S. 3106 which would de-authorize the Tocks Island dam and reservoir project.

As a person who was deeply involved in the development and management of the water resources of the Delaware River Basin for some 15 years, I urge you to vote against S. 3106 for many reasons, the most important of which are:

1. The resources to be provided by the project are needed - now- as testimony from Philadelphia Water Commissioner Guarino and other bona fide experts made eminently clear.

2. There are no politically feasible alternatives to the project.

The alternatives suggested in the recent URS-Madigan study are technically feasible but politically ludicrous. This point can be checked very easily by asking Representative McDade if he and his constitutents would support the construction of six reservoirs in his District. As a former resident of that District, I can assure you the good citizens would resist each and every reservoir to the limit.

3. The arguments against the Tocks Island project which have been advanced by environmentalists simply have not been proven out. The main argument- the lake would become seriously eutrophied- has not been borne out in any studies.

The de-authorization of the project would greatly undermine numerous power projects and other large-scale developments in this Valley; and would so undermine confidence in the Valley's ability to marshal the resources needed for development

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Senator Mike Gravel July 28, 1976

that the pace of economic activity here would slow ever further. In short, de-authorization would all but consign this Valley to economic oblivion.

Respectfully submitted,

Frank W. Dressler

LOREN V. FORMAN
Vice President

July 19, 1976

The Honorable Richard S. Schweiker
United States Senate
Washington, D. C. 20515

Dear Senator Schweiker:

We note that your name appears as cosponsor on S3106 which proposes to deauthorize the Tocks Island Reservoir project.

I am writing to make sure that you are aware of the reasons why we feel that deauthorization is not in the best interest of the citizens of Southeast Pennsylvania nor of Scott Paper Company--its 4100 employees in Delaware County--and its shareholders in the Delaware River Valley.

Both the municipalities and the industries on both sides of the river between Torresdale and the Delaware Memorial Bridge, who either use river water, or whose effluents are tributary to the river, have a very substantial economic need for the low-flow augmentation which the Tocks Island Reservoir project was expected to provide.

One problem for river water users in this area is salt water intrusion. When the river flow is high, the interface between salt water and fresh water moves down the estuary to and beyond the Delaware Memorial Bridge. When the river flow is low, this interface moves up the estuary past Scott Paper and in extreme cases, almost to the City of Philadelphia intake at Torresdale.

At Chester, daily salinity tests are made by Scott. The high daily value in each month back to 1951 is shown in Attachment A. The high salinities correlate pretty well with low flows; salinities have exceeded potable limits (250 ppm chlorides) in 65 months over the last 25 years. Corrosion of equipment sets in at 60 to 100 ppm chlorides and increases rapidly as chlorides increase. At Chester we found chlorides over 800 ppm in 25 months in the last 25 years, over 1000 ppm in 19 months; over 1200 ppm in 16 months and over 1500 ppm in 9 months.

The Honorable R. S. Schweiker 7/19/76

During the drought year 1964 we identified extra maintenance and operating costs resulting from salt intrusion at $500,000. This figure probably would have been higher if we had anticipated the need to identify and document these costs. A similar situation today would, of course, result in a much higher loss in 1976 dollars.

A second problem must be faced by municipalities and industries whose effluents are tributary to the Delaware River. This problem is potentially even more severe than the effects of salt intrusion if low flows are not augmented from a major upstream reservoir.

As you may know, the whole system of stringent waste load allocation developed by the States and the DRBC is based on the assumption that the minimum flow at Trenton will be 3000 c.f.s. This minimum flow requires upstream augmentation for two reasons:

First: Augmentation is needed to offset the lack of mandated releases from the New York City reservoirs on the Upper Delaware needed to maintain the flow at Montague at 1750 c.f.s. See Attachment B.

Second: It is necessary to raise the low flow at Trenton from the level which would now result from 1750 c.f.s. flow at Montague up to 3000 c.f.s. base needed at Trenton to allow the multi-million dollar municipal and industrial waste treatment plants downstream to meet their legal requirements.

Without the 3,000 c.f.s. flow at Trenton, even the newest waste treatment plants like DELCORA will be undersized even though they already are mandated to achieve some of the highest removals in the country--90 to 95%.

Many more millions of municipal and industrial capital and operating dollars would then be required for additional abatement along the river. When removal goes above 95%, the costs become astronomical. A rule of thumb is that the cost of a waste treatment system tends to double each time the untreated load is cut in half. This is especially true if provision was not made in the original design for easy expansion.

ATTACHMENT A

HISTORICAL DATA CHESTER CHLORIDES

HIGH TIDE MAXIMUM P.P.M.

YEAR	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1951	20	15	15	15	15	30	35	35	370	385	40	20
1952	20	20	20	15	20	20	30	20	20	180	560	40
1953	20	20	20	15	10	15	80	280	400	1500	510	90
1954	30	20	10	10	10	40	750	1080	940	1320	670	15
1955	25	20	20	15	20	100	610	880	20	15	10	10
1956	215	30	20	20	20	20	30	110	155	310	70	35
1957	30	20	20	20	40	110	680	1430	1660	2030	1730	655
1958	40	30	20	20	20	30	35	50	190	140	20	20
1959	30	30	20	20	25	95	210	155	90	110	40	20
1960	20	20	20	20	20	20	35	30	35	25	25	100
1961	70	150	20	20	20	30	35	40	115	700	520	170
1962	45	30	25	20	35	75	400	490	635	325	220	20
1963	680	40	25	25	30	130	650	900	1100	1500	1700	250
1964	35	30	30	25	30	90	260	710	1575	1590	1975	1305
1965	215	112	40	40	45	490	695	1010	1350	1300	1400	980
1966	630	810	25	25	25	75	620	890	1470	590	385	85
1967	37	35	37	21	23	32	34	34	103	170	70	30
1968	35	35	55	30	25	25	45	215	385	420	340	30
1969	135	420	740	43	36	46	46	36	96	340	420	45
1970	53	53	40	37	35	41	40	60	370	385	32	27
1971	46	52	33	25	27	37	240	88	40	31	59	30
1972	31	46	48	28	26	24	24	75	255	422	148	21
1973	24	24	26	21	21	24	24	30	80	281	71	47
1974	41	33	35	24	32	33	205	108	60	37	98	43
1975	40	57	30	27	55	33	35	60	70	27	25	30
1976	48	35	30	33	30							

ATTACHMENT B

EFFECT OF UPSTREAM WITHDRAWAL ON DOWNSTREAM WATER USERS

By a Supreme Court Decree in 1931, New York City was authorized to withdraw 440 MGD (million gallons per day)--equivalent to 681 c.f.s. (cubic feet per second) from the Upper Delaware River provided it maintained a flow of 1535 c.f.s. at Port Jervis and 3400 c.f.s. at Trenton. The Supreme Court Decree was amended in 1954 to allow (after some interim limitations in the period June 1954 to March 1967) the withdrawal of 800 MGD--equivalent to 1238 c.f.s.--provided a flow of 1750 c.f.s. is maintained at Montague.

The mandated releases from the New York City reservoirs to maintain 1750 c.f.s. at Montague were not made during the drought of the mid-'60's when New York City needed the water. As a result, during the first five days of July 1965 the average flow dropped to 570 c.f.s. at Montague (one-third of the required 1750 c.f.s.) and to 1320 c.f.s. at Trenton (less than one-half of the 3000 c.f.s. needed to validate the downstream waste treatment program).

The purpose of this review is neither to decry the New York City withdrawal nor to suggest that the releases mandated by the Supreme Court Decree be enforced. We are under the impression that Pennsylvania agreed not to question the New York withdrawal as a condition of New York State's participation in the compact which led to the Delaware River Basin Commission.

Our purpose is merely to place the withdrawal in perspective--which is not easy for the layman to do when withdrawals are stated as MGD and river flows are stated in c.f.s.--and to illustrate the real need for adequate low flow augmentation by one means or another under existing circumstances.

The size of the Delaware River Estuary naturally leads to misconceptions about the river flow and makes the withdrawal perspective more difficult to achieve.

If the upstream dams were not there, or if they were there but operated so that the outflow equals the inflow, the flow profile in a time of drought such as the mid-'60's would be estimated about as follows:

Place	Low Flow C.F.S.
Montague.....	570
Trenton.....	1450
Chester (net flow)	2050

These flows would need to be revised downward to reflect the withdrawals to Pennsylvania and New Jersey which have been added over the last ten years.

76-797 O - 76 - 32

This emphasizes the need for a new major reservoir or reservoirs above Trenton for low flow augmentation even before some of the planned future withdrawals take place. Against this backdrop, one can get a better perspective on the 1238 c.f.s. withdrawal by New York City and on the low flow augmentation needed--some 1180 c.f.s. to reach 1750 c.f.s. at Montague and some 1550 c.f.s. to reach 3000 c.f.s. at Trenton.

The Western branch of the DELCORA waste treatment system alone will cost well over $100 million by 1980 and will serve some 600,000 people plus industrial customers. Any short fall in the 3000 c.f.s. design base at Trenton will expose all DELCORA users to very substantial increases in their sewer charges. If the flow is 1500 c.f.s., the treatment system costs could be nearly doubled.

LVF:een

LOREN V. FORMAN
Vice President

July 28, 1976

The Honorable Mike Gravel, Chairman
Water Resources Sub-Committee
Committee on Public Works
4204 Dirksen Center Office Building
Washington, D. C. 20510

Dear Senator Gravel:

Enclosed is a copy of a letter sent to Senator Schweiker expressing Scott Paper Company's position with respect to the Tocks Island Reservoir Project.

We would greatly appreciate your including this letter as part of the record in the hearings being held on S.3106.

Generally, we believe it would be a mistake to deauthorize this project at this time. Water from such a reservoir is needed for low flow augmentation to control salt intrusion and to provide the minimum flow on which mandated waste load allocations were determined. Without such augmentation, the over $750,000,000 spent for municipal and industrial waste water treatment along the Delaware River will be inadequate.

Deauthorization would expose the region to staggering additional costs to achieve the water quality anticipated with the Tocks Reservoir in the picture. The region already bears one of the highest abatement cost burdens in the nation.

If we can provide further information, please do not hesitate to contact us.

Sincerely,

Loren V. Forman

LVF:een



GLOUCESTER COUNTY DEVELOPMENT COUNCIL, INC.

August 10, 1976

The Honorable Mike Gravel
Chairman
Water Resources Sub Committee
Committee on Public Works
United States Senate
4204 Dirkson Building
Washington, D.C. 20510

Dear Senator Gravel:

The Gloucester County Development Council, Inc. is a nonprofit development corporation charged with the orderly economic development of Gloucester County. It is in this light that the Council urges that every effort be made to prevent the deauthorization of the Tocks Island Reservoir.

The basic industry of Gloucester County is energy oriented, and large users of process water drawn from the Delaware River. To such users as the Texaco refinery, Mobil refinery, DuPont, Pennwalt, Monsanto, and others, and significant reduction in the flow of the Delaware water could result in saline intrusion, posing possible serious economic hardships on the industries and the community.

The economic future of the county and the region is heavily predicated on an abundance of process water to serve existing industries and to assure a fair share of the national economic growth.

Your favorable consideration is respectfully sought.

Sincerely,

John DeW. Crandall
Executive Director

Testimony of J. C. Turner, General President
International Union of Operating Engineers, AFL-CIO
before
The Tocks Island Matter
and its intended deauthorization
Senate Public Works Committee
Dirksen Senate Office Building
Room 4204
Washington, D. C. 20510

Mr. Chairman and Gentlemen of this Committee:

My name is J. C. Turner, General President of the International Union of Operating Engineers and we appreciate the opportunity to appear on the matter of Tocks Island and its deauthorization contemplation.

The Operating Engineers have been engaged for many, many years building structures (or destroying them), installing sewer and water connections, building the plants that provide for sewers and fresh water, installing steam systems and electric systems and telephone systems and pipelines for oil, sewer, water and coal. We have been engaged in building the highways and railroads and airports that connect our great country together. If it is to be built - and it takes power driven equipment to do the job - then the Operating Engineers are available. This attitude

of ours extends also to dams and water saving thoughts. The Operating Engineers have left their stamp on many a dam constructed in this great land we call home.

Insofar as Tocks Island Dam and Lake are concerned, this writer is well aware of past attitudes over the contemplated construction of same. He is well aware of the thinking of many people regarding the construction of the Dam itself - the authorization of the structure itself and the setting aside monies to cover the cost. Land acquisition monies, too, were contemplated and set aside. It seems to this person all was provided for except the awarding of contract.

This writer is also well aware of the attitudes of the National Park Service in the matter of Tocks Island and its Dam and Lake. He is also well versed on the

attitude of the Governors of the Basin States relative to the Dam and its need. He is especially well read in the matter of U. S. Supreme Court 2 June 1954 decree, allocating the Delaware limited water over this important four-state area. He too knows of the River's disastrous drought years which continued uninterruptedly through 1966.

Again, though, this speaker also knows of the down-stream problems of New Jersey, Pennsylvania and Delaware. The problem just keeping plants open and doing business on a daily basis. We also are aware of the generation of electricity at the Dam site and the special need for that important device downstream and, Gentlemen, we are most knowledgeable of the contemplated taxes on that production.

In closing I must say, however, that the Operating Engineers have worked on many impoundment sites. He has

had many attitudes regarding the design of the facility involved. In this case, the Dam is perfect for the situation involved - a great design for impounding water for a great need brought forth by the sovereignty of a great Corps.

I have not spoken to you regarding the many jobs that are to be created by this construction, or the after-effects for the community involved. Of the severe need for a stable water supply - of adequate electric production - of the need to keep the productive forces in good operation in that vital east coast area. I have not spoken to you of these matters because you know them well. However, I must speak to you regarding deauthorizing the Tocks Island Matter and its very absurd attitude regarding a needed function. This project is needed, now, not in the future

and it should be constructed immediately.

Thank you for your attention, Gentlemen.

STATEMENT OF ANGELO FOSCO, GENERAL PRESIDENT
LABORERS' INTERNATIONAL UNION OF NORTH AMERICA
BEFORE THE SUBCOMMITTEE ON WATER RESOURCES
OF THE SENATE PUBLIC WORKS COMMITTEE

July 26, 1976

Mr. Chairman and Members of the Committee:

My name is Angelo Fosco and I am General President of the Laborers' International Union of North America. On behalf of the more than 75,000 members which our Union represents in the area affected by this project I want to thank you for the opportunity to be here today and place our position or record in support of continued authorization for the Tocks Island Dam.

Discussion of a multi-purpose dam, Tocks Island, has been going on in the State of New Jersey since 1925; however, it was not until the great floods of 1955 that realistic planning was initiated. The original proposal called for a dam solely for the purpose of water storage and flood control with incidental recreational facilities. When Congress held authorization hearings in 1964 you added, wisely, I think, electrical generating capacity to the authorized project. Within the twenty-year span the Tocks Island Dam has been under consideration the necessity for its construction has become evermore apparent and imperative. Studies by the Corps of Engineers, the Department of Interior and independent consultants have all pointed out the vital necessity for increasing water supply, electrical capacity and recreational facilities in the northeastern United States - and especially in the State of New Jersey. Alternatives to Tocks Island which have been addressed in some of the studies include water rationing,

reduced electrical capacity and, implicitly, reduced industrial activity and employment within the very near future for residents of New Jersey. To argue, as the opponents of Tocks Island do, that a river should be saved at the expense of these consequences for our citizens is a position with which this Union can never agree.

The Laborers' International Union of North America has repeatedly stated its policy with respect to the environment. We, perhaps more than others, appreciate the necessity for preserving open spaces and natural recreation areas for the benefit of all of the people of this Country. On the other hand, we recognize the greater necessity for providing for the economic well-being of our growing population. Those who would support no-growth policies for our economy must provide more than negative solutions - but they never do. In all of the literature opposing Tocks Island and other development projects no mention is made of what will be done with people,either now or in the future. We challenge the opponents of these projects to provide a blueprint for the future which will include consideration of human welfare.

The Tocks Island project as it is presently conceived seems to us to meet all reasonable requirements of human need and environmental conservation and enhancement. The project includes besides water storage and flood control, additional emergency electrical capacity for the northeastern power grid. Furthermore, incorporated into this project is a massive development of recreational facilities in one of the most crowded areas of the northeastern corridor which will be of incalculable benefit to great masses of people in three states. Finally, in spite of the development of Tocks Island, fully seventy-five miles of the Delaware River will be left in as pristine a

condition as it was prior to the building of this project. As a compromise between environmental preservation and economic and social necessity, Tocks Island appears to us to represent an effective balance of interests. We urge, then, that Congress continue the authorization for this project and not bow to the wishes of a vocal minority in the face of the great needs which can be met by the Tocks Island Dam.

As a predominantly building trades union, we have a direct and immediate interest in Tocks Island. In spite of the somewhat shaky general improvement in our economy the construction industry has not yet begun to recover from the recession of 1974-75 and for us, of course, 1976. Construction unemployment ranks first among all industries and promises to continue to do so for some time to come. This is especially true in the State of New Jersey where unemployment among construction workers is far higher than the general published rate of fourteen percent (14%) for the State. We are advised by our local people that depending on the trade, construction unemployment ranks from a low of thirty-five percent (35%) to a high of sixty percent (60%) and for our own members of the Laborers' Union, fully half are unemployed. The Tocks Island Dam project will provide 5,000 jobs a year for a period of ten (10) years working directly on the project. Off-site employment and the associated development of the area would provide another 5,000 jobs annually. Neither the construction industry, the Nation, or the State of New Jersey can afford to lose this employment at a time when we are struggling out of a major recession.

Tocks Island has been uniformly supported by every agency, public and private, that has considered the necessities of the State of New Jersey and its surrounding areas. It has the support of virtually all public and private institutions in the State of New Jersey. Only a minority of persons and

institutions that will be affected by this project oppose it and those for mostly selfish, personal interests. We urge this Committee and the Congress, again, to continue the authorization for the Tocks Island Dam and to provide for the immediate initiation of work on this vital project.

# # #

WRM 79 WEST SPROUL ROAD, SPRINGFIELD
PENNSYLVANIA 19064 (215) 5447082

July 21, 1976

The Hon. Mike Gravel
Chairman Water Resources Subcommittee
Committee on Public Works
United States Senate
4204 Dirksen Senate Office Building
Washington, D. C. 20510

Dear Senator Gravel,

As a registered professional engineer actively engaged in the technical aspects of water resource management and environmental control, I would like to record for the consideration of your subcommittee my personal concern regarding the possible termination of the authorization for the Tocks Island Dam and Reservoir Project, as proposed in Senate Bill S.3106. Exposure to the pros and cons of the project over the past five years has convinced me that those who have thus far succeeded in blocking this worthwhile source of supply augumentation, flood control, water quality enhancement, and recreational opportunity are playing "fast and loose" with the long-term welfare of the Delaware River watershed and adjacent service areas. I am not alone in predicting that there will be a revival of public outcry for the controls offered by the project when there are repetitions of the droughts of the 1950's and 1960's, of the disastrous hurricanes and floods of the 1960's and 1970's, and of the demands for more water for New York City and northern New Jersey.

In my view the Tocks Island Project offers the best technical solution for the needs of the region, with the alternatives being piecemeal and cost-ineffective approaches to the overall problem. It is a sad commentary that we have allowed vested interests, political expediency, and uninformed judgments to set back for so many years the planning of a project so necessary to the welfare of our citizens. I urge you to recommend the retention of the Tocks Island authorization so as to minimize the delay in reestablishing it as an active project.

I offer for your consideration in weighing this expression of my personal opinion the following summary of my qualifications with regard to water resources and environmental engineering:

Registered Professional Chemical Engineer - Pennsylvania

Diplomate of the American Academy of Environmental Engineers (Air Pollution Control)

Recent past chairman of Environmental Improvement Committee, Greater Philadelphia Chamber of Commerce, and former chairman of Tocks Island Review Panel

Co-chairman of Water Quantity and Quality Committee of the Water Resources Association of the Delaware River Basin.

Yours truly
William R. McBride
William R. McBride

JOYCE L. Mc DADE
Clerk, Board of Chosen Freeholders
Mercer County

Administration Building
P. O. Box 1777
Trenton, New Jersey 08607
(609) 989-8000

August 10, 1976

Honorable Michael Gravel
Chairman, Sub-Committee on Water
Resources Senate Committee on
Public Works
4204 Dirksen Senate Office Bldg.
Washington, D.C. 20510

Dear Mr. Gravel:

Enclosed herewith is a certified copy of the resolution # 76-293 adopted on August 10, 1976.

We request that this resolution be made part of the Hearing Records.

Sincerely,

Joyce L. Mc Dade

Joyce L. Mc Dade, Clerk
Mercer County Board of
Chosen Freeholders

JLM/lac

enc.
cc: Congressman Frank Thompson

COUNTY OF MERCER, NEW JERSEY **RESOLUTION NO.** 76-293

Approved as to Form and Legality

County Counsel

Date Adopted:

August 10, 1976

MERCER COUNTY BOARD OF CHOSEN FREEHOLDERS
PETITIONS SENATE SUB-COMMITTEE ON WATER
RESOURCES REGARDING TOCKS ISLAND LAKE PROJECT

WHEREAS, there is presently before the Senate Sub-Committee on Water Resources, Senate Committee on Public Works, Senate Bill #3106, which if adopted and signed into law, would de-authorize the Tocks Island Lake Project; and,

WHEREAS, the Mercer County Board of Chosen Freeholders has evaluated Senate Bill #3106 and the effects its passage would have on Mercer County; now, therefore,

BE IT RESOLVED, that the Mercer County Board of Chosen Freeholders urges the Sub-Committee not to report favorably to Senate Bill #3106 that would de-authorize the Tocks Island Lake Project; and,

BE IT FURTHER RESOLVED, that a certified copy of this resolution be forwarded to Honorable Michael Gravel, Chairman, Sub-Committee on Water Resources, Senate Committee on Public Works, 4204 Dirksen Senate Office Building, Washington, D.C. 20510, with the request that this resolution be made part of the hearing record.

BY: Mr. Lugossy

I hereby certify this to be a true copy of the original.

Joyce L. McDade

Mercer County Board of Freeholders

Joyce L. McDade

Clerk of the Board

RECORD OF VOTE

Freeholder	Aye	Nay	N.V.	A.B.	Res.	Sec.
Driver	X					
Howard	X					
Lugossy	X				✓	
Sigmund	X					
Sollami	X					
Watson	X					✓
Tighue	X					

X—Indicates Vote A.B.—Absent N.V.—Not Voting
Res.—Resolution Moved Sec.—Resolution Seconded

MERCER COUNTY CHAMBER OF COMMERCE

88 EAST STATE STREET / TRENTON, NEW JERSEY 08608 / 609 393-4143

STATEMENT BY THE MERCER COUNTY CHAMBER OF COMMERCE BEFORE THE SUBCOMMITTEE ON WATER RESOURCES OF THE SENATE PUBLIC WORKS COMMITTEE REGARDING THE TOCKS ISLAND DEAUTHORIZATION BILL

The Mercer County Chamber of Commerce respectfully urges this Committee not to approve the legislation to deauthorize the Tocks Island project. As you probably know, the diversions of Delaware River water to New York City and northeastern New Jersey, and the maintenance of an adequate flow in the river between Trenton and Wilmington, are presently matters of sharp controversy.

As the representatives of the business community in Mercer County, we are seriously concerned over the affect the deauthorization step could have on the future development of this area. Obviously, any threat to our water supply is a threat to our actual existence. In our opinion, deauthorization represents such a threat.

At this point in time, no viable alternative to the Tocks Island Project has been developed, and the need for it has not been disproved. We continue to believe that the Tocks Island project should not be buried because of its unproven affect on the environment, but rather it should be reincarnated for the well being of the entire Delaware Valley.

We ask this committee to demonstrate the courage and foresight of which it is capable by not only rejecting the deauthorization bill, but by approving a resolution calling for the immediate construction of the dam. The Tocks Island Dam will ease the threat of flooding, and insure our potable water supply. Congress must act now to restore this project, if it does not wish to place the future of the entire Delaware Valley in jeopardy.

RESOLUTION

76-864

RESOLUTION ENDORSING THE PROPOSED TOCKS ISLAND LAKE PROJECT.

WHEREAS, the City Council, in concert with the Mercer County Planning Board and the Mercer County Board of Chosen Freeholders, has evaluated all aspects of the proposed Tocks Island Lake Project based on available data; and

WHEREAS, the anticipated proposed growth and past experience with drought conditions in the Delaware Valley indicate a need for the additional water resources resulting from this project; and

WHEREAS, the flood control resulting from the project is unquestionably needed to protect property located along the banks of the Delaware River; and

WHEREAS, the northeastern United States is and will be the population center for the foreseeable future and the natural recreation area is needed to serve this populous region; and

WHEREAS, the increase of the supply of electrical power is an undisputed need for the northeastern region of the United States; now therefore be it

RESOLVED, that the City Council of the City of Trenton, New Jersey, hereby endorses the proposed Tocks Island Lake Project along with a continuation of environmental studies to minimize any environmental damage and urges the subcommittee not to report favorably to Senate Bill 3106 that would deauthorize the Tocks Island Lake Project; and be it further

RESOLUTION

RESOLVED, that a certified copy of this resolution be forwarded to the Honorable Michael Gravel, Chairman, Subcommittee on Water Resources, Senate Committee on Public Works, 4204 Dirksen Senate Office Building, Washington, D. C. 20510, with the request that this resolution be made part of the hearing record.

John R. Cipriano
President

Adopted: August 5, 1976

Margaret K. Ture
City Clerk

I HEREBY CERTIFY THAT
THIS IS A TRUE COPY
DATED, TRENTON, N. J.
August 11 1976
Eleanor Dallore
Asst. CITY CLERK

JAMES W. MYERS, JR.
Consulting Engineer

JAMES W. MYERS, JR.
S-103 MAIN LINE-BERWYN APARTMENTS
750 OLD LANCASTER ROAD
BERWYN, PENNSYLVANIA 19312

7-29-76

The Honorable Mike Gravel,
United States Senate,
4204 Dirksen Senate Office Bldg,
Washington, D.C. 20510

Re: Subcommittee on Water Resources
of the Committee on Public Works.

Dear Sir:

I strongly urge & recommend that you vote No on Senate Bill S-3106 "To Terminate the Authorization for the Tocks Island Lake Project."

There is no viable Alternative.

This is the most important single element in the Delaware River Basin Commission's Long Range Comprehensive Plan for the orderly Growth & Development of the water resources of the Delaware River Basin.

The Federal Government has already spent millions on this Project & to abandon it now would be reckless & foolhardy.

Despite the articulate testimony by the instant ecologists & environmentalists; they

JAMES W. MYERS, JR.
Consulting Engineer

JAMES W. MYERS, JR.
B-103 MAIN LINE-BERWYN APARTMENTS
750 OLD LANCASTER ROAD
BERWYN, PENNSYLVANIA 19312

HAVE NO PLAN, & THERE IS NONE. THIS TALK ABOUT DAMS & IMPOUNDMENTS ON SMALLER TRIBUTARIES IS JUST PLAIN CRAZY. SPECIFICALLY WHAT STREAMS; WHAT DAM SITES; WHAT SIZE IMPOUNDMENTS?

TO KILL THIS PROJECT NOW, WHICH HAS BEEN STUDIED & REVIEWED BY SOBER MINDED RESPONSIBLE PLANNERS & OLD TIME CONSERVATIONISTS FOR DECADES WOULD BE THE HEIGHT OF FOLLY.

THE ATTACHED 1½-MINUTE STATEMENT WHICH I PRESENTED AT A PUBLIC HEARING OF THE DELAWARE RIVER BASIN COMMISSION ON 1-23-74 IS A SUCCINCT REVIEW OF MY NEVER CHANGING & UNFALTERING OPINION WHICH I HAVE EXPRESSED AT TO SENATE & CONGRESSIONAL HEARINGS ON PUBLIC WORKS FOR YEARS. PLEASE READ IT.

RESPECTFULLY SUBMITTED,
James W. Myers Jr.

PLEASE FORGIVE THE UNTYPED LETTER, SINCE RETIREMENT I NO LONGER HAVE A SECRETARY.

Statement of James W. Myers, Jr.
to Delaware River Basin Commission
on Proposed Eleventh Annual Water Resources Program at
Public Hearing, Trenton, New Jersey - April 23, 1974

Mr. Chairman and Commissioners:

My name is James W. Myers, Jr., a retired, registered professional engineer. I am a resident of Berwyn, Pennsylvania.

I am a Life Member of the American Society of Civil Engineers and the National Society of Professional Engineers. More than forty-five years of my professional career have been in the field of public water supply.

I am here today as an individual and an ardent supporter of the Delaware River Basin Commission's "Long-Range Comprehensive Plan" for the orderly growth and development of the water resources of the Delaware River Basin. The Commission's program calling for multi-purpose reservoirs provides for needed flood control; public water supply; water quality regulation; and water for industry, agriculture, electric power and recreation on a fair and equitable cost-sharing basis. It rightfully deserves the unqualified endorsement and support of the entire basin community. I am here today as the self-appointed spokesman for a vast silent majority of some 830,000 suburban water consumers who look to the Delaware River Basin Commission for an adequate and dependable supply of top-quality water.

Beginning in early 1947, I have been personally involved in forecasting

and planning public water supply facilities for the present and future needs for this segment of the basin population. Although no longer active in the profession, I feel a moral responsibility to come forward and speak in the best interest of this large silent majority.

I was delighted, at long last, to see that both the Tocks Island and the Trexler Dam and Reservoir projects were placed on the "A" list in the "Annual Water Resources Program". In my considered opinion, the Tocks Island Dam and Reservoir project is the single most important element in the Commission's "Long-Range Comprehensive Plan".

The Tocks Island and Trexler Dam and Reservoir facilities, along with the Point Pleasant supply facilities planned for by the Neshaminy Creek Water Authority, will provide a substantial portion of the needs for this segment of the basin population. The balance of their water requirements will come from the continued development of the ground water potential available and the further development of the Upper Schuylkill River Basin at Blue Marsh and Maiden Creek.

Any further delay in the actual construction of these facilities will prejudice the ability of the dependent water purveyors to meet the growing demands, and could conceivably precipitate a disasterous water crisis.

It is my understanding that projects advanced to the "A" list are ready for construction and deemed to be approved for the purposes of Section 3.8 of the compact. Moreover, no further review is required.

I earnestly hope that this hearing does not open the door for "pot shots" that might result in another intolerable delay.

In reading the Commission's 1973 Annual Report it appeared that all important issues relating to Tocks had finally been resolved, and the project could go forward without further delay. Time is of the essence, as all public water supply agencies in the basin are very dependent on the Commission, since it is no longer economically feasible or socially desirable for a utility to move forward on a unilateral basis, building single-purpose impounding reservoirs for water supply only. This is the era of regional or basin-wide planning which envisions multi-purpose reservoirs, with public water supply as only one of its many features. Since the Delaware River Basin Commission has jurisdiction and control of all waters in the basin, it is important to all water purveyors that the plans of the Commission go forward as scheduled.

Early in the nineteen fifties the four basin states failed to approve and ratify the "Long-Range Comprehensive Plan" proposed by the Interstate Commission on the Delaware, and those of us who were vitally interested in this physical plan of water development were shocked and stunned. For years following this setback "Incodel" just marked time. However, with the adoption of the Delaware River Basin Compact by the four states and the Federal government it was felt that the chaotic situation in the basin was now history.

To our dismay we were then confronted with a new breed of instant ecologists and environmentalists who were successful in still further delaying these desperately needed public works projects. Those of this opposition group with whom I have talked seem to have a genuine concern, but are confused, uncertain, bewildered and extremely impractical; and I underscore impractical.

They have no concrete plan except to bring everything to a screeching halt -- a wait-and-see philosophy.

A mature society cannot do this. It must examine every project objectively, without prejudice or bias, and must decide what is in the public interest and how the project can achieve the maximum benefit for the greatest number.

Now is the time to face up to the facts and the overwhelming evidence favoring the timely completion of these essential projects. The objectors have had their day in court and were unable to make a case.

In the meantime, inflation has become a world-wide disaster, and although the United States has the lowest annual rate of any nation, the price tag on these facilities has already been substantially increased because of the unwarranted delay. On April 30th when all price and wage controls are lifted, construction costs will soar. Although funding may be difficult, we are approaching a critical time horizon and we cannot long survive without these facilities. In the public interest there can be no justifiable delay on environmental or ecological grounds. The memory of the five-year drought in the sixties, and the ravages of "Diane" and "Agnes" remain to haunt us.

As the self-appointed spokesman for this faceless group, I strongly urge and recommend that Tocks and Trexler remain on the "A" list.

Thank you for letting me appear before you.

THE PENJERDEL CORPORATION

THE TRI-STATE ASSOCIATION OF BUSINESS, INDUSTRY & PROFESSIONS SERVING THE DELAWARE VALLEY

OUR BUSINESS IS THE DELAWARE VALLEY

STATEMENT OF THE PENJERDEL CORPORATION

JULY 23, 1976

to the WATER RESOURCE SUB-COMMITTEE WORKS COMMITTEE

DIRKSEN BUILDING, WASHINGTON, D.C.

This statement is submitted to present the views of PENJERDEL and the Greater Philadelphia Chamber of Commerce. The PENJERDEL Corporation is a non-profit regional association of business, industry, and professions concerned with the economic growth and well being of the eleven-county Tri-State (Pennsylvania, New Jersey, and Delaware) area comprising lower Delaware Valley.

Our interest in Tocks Island involves both economics and quality of life for the inhabitants of the PENJERDEL area. These two factors are inseparable for those who have a business, professional, or personal stake or interest in the region. From both these view points, we urge that deauthorization of the Tocks Island project is not in the best interest of the citizens of the Delaware Valley. We deeply regret last year's decision not to proceed with construction of the project as originally proposed. In spite of that action the necessity still remains to provide for certain basic water resource needs of the region. Steps must be initiated in the very near future to secure an adequate water supply for the coming decades, to provide badly needed flood control, to assist in providing an increasing need for non-polluting power sources in the region and, to provide badly needed recreational facilities for the urban areas of the Pennsylvania, New York New Jersey complex. In the year since the decision not to proceed with the construction of the Tocks Island project we have seen no new acceptable or workable alternatives proposed. Alternative plans which have been previously suggested promised further years of long delay involving processing, innumerable additional hearings, and clearances, with the resulting projects still not offering ideal or even superior answers to the basic needs of power, water, flood control, and recreation for the region.

With regard to provision of water supply, over the long term, it is quite apparent that the lower Delaware Valley must have access to a more certain water supply than it does at present, particularly with the draw down of the Delaware by New York and New Jersey. For us in the PENJERDEL area, it is not just a question of going unwashed personally throughout drought periods, it is also a question of going without jobs when industry, particularly the generators of electricity, does not have adequate water to permit it to operate.

(PENJERDEL STATEMENT - 2)

We believe that the URS - Madigan-Praeger Study was correct in evaluating the Tocks Island Project as having a lower capital cost and a higher cost-benefit ratio than other proposed alternatives. However, in relation to water supply it failed to point out two additional major needs which would have been met by the project. The municipalities and the industries on both sides of the Delaware River who either use river water, or whose effluents are tributory to the river, have a very substantial economic need for the low-flow augmentation which the Tocks Island Reservoir Project was expected to provide. This is a need particularly acute in the stretch from Tocks Island to the Delaware Memorial Bridge, but users below that point will also benefit from reduced salinity resulting from low-flow augmentation.

One problem for river water users in this area is salt water intrusion. When the river flow is high, the interface between salt water and fresh water moves down the estuary to and beyond a point in the vicinity of the Delaware and Chesapeake Canal. When the river flow is low, this interface moves up the estuary, in extreme cases almost to the City of Philadelphia intake at Torresdale. Additionally, we are concerned about the behavior of salt water intrusion into the underground aquifers which supply wells along the tidal estuary. At least forty percent of the water withdrawn from groundwater aquifers by the metropolitant Camden area is replenished from the tidal Delaware River.

A second problem must be faced by municipalities and industries whose treated effluents are discharged into the Delaware River. This problem is potentially even more severe than the effects of salt intrusion if low flows are not augmented from a major upstream reservoir. The whole system of stringent waste load allocation developed by the State and the DRBC is based on the assumption that the minimum flow at Trenton will be 3,000 c.f.s. This minimum flow requires upstream augmentation for two reasons:

1. Augmentation is needed to offset the lack of mandated releases from the New York City reservoirs on the Upper Delaware needed to maintain the flow at Montague at 1750 c.f. This fell to about one third of this value in the mid-1960 drought period.

2. It is also necessary to raise the low flow at Trenton from the level which would now result from 1750 c.f.s. flow at Montague (about 2700 c.f.s.) up to the 3000 c.f.s. base needed at Trenton to allow the multi-million dollar municipal and industrial waste treatment plants downstream to meet their legal requirements.

Without the 3,000 c.f.s. flow at Trenton, even the newest waste treatment plants like DELCORA will be undersized even though they already are mandated to achieve some of the highest removals in the country -- 90 to 95%. Many more millions of municipal and industrial capital and operating dollars would then be required for additional abatement along the river. When removal goes above 95%, the cost becomes astronomical.

(PENJERDEL STATEMENT - 3)

Without Tocks Island properties now exisiting on the Delaware River flood plains are left without prospect of any near-term protection from flood damages. Even if all other reservoirs currently proposed in the Delaware River Basin's Comprehensive Plan were to be constructed, the flood stage at Trenton, for a flood of 1955 magnitude, would be reduced only about one foot (compared to six feet with Tocks Island). The risk is not limited exclusively to owners of flood plain properties; society in general inevitably feels the physical and financial impact of any major flood on the Delaware due to the secondary effects associated with flooding. Flood relief ends up as a tax burden on the general public.

Flood plain development regulation, currently being proposed, speaks only to the future; it does not prevent flood damage to present occupants of the flood plain. Flood Plain Insurance, while it may become available for some people in the damage centers, spreads the burden of repair but does not, of itself, prevent the physical damages.

Chapter XV of the Madigan-Praeger study gave some approximate data on the magnitude and costs of a possible non-structural flood damage control program. These figures, however, are only tentative and standing by themselves, do not suffice to demonstrate the feasibility of this approach. Federal support for further studies to determine the adequacy of such non-structural protection proposals has not yet been obtained. Without authorization for alternative studies even underway, it seems preposterously premature to even discuss deauthorization.

With regard to electric power, it is quite apparent that we have entered a new energy era - one where the cost of former basic resources is increasing rapidly and where supplies of these resources will at best become limited and insecure. Tocks Island could contribute substantially to meeting the power needs most effectively and economically. A recently updated study under the auspices of electric power companies serving the Delaware River Basin reflects the effects of changing growth and capacity requirements in the period 1975 through 1989. A supplementary water supply study conducted by the engineering firm of Tippets-Abbott-McCarthy-Stratton, indicated that the Tocks Island, Blue Marsh and Trexler Reservoirs could meet the consumptive water requirements of power plants, estimated at a total of 250 c.f.s. by 1989, without infringing on other future water use requirements of the Delaware River Basin, including salinity control in the estuary, if the project were developed.

Availability of low-cost reliable energy is conducive to a healthy economy in the Delaware Valley Area. If the installation of the planned additional electric capacity of 10,600 megawatts within the Delaware Basin is reduced or delayed, the economy of this area could be seriously damaged.

(PENJERDEL STATEMENT - 4)

Alternatives to Tocks Island in terms of electric power generation would require the use of fuel oil - an unnecessarily costly alternative which would draw down further from our short supply. It goes without saying that environmental improvements which rely heavily on the use of electric energy will also be hampered without adequate power supply.

With regard to recreation we must all face the fact that there exists currently in this Tri-State region a significant shortage of adequate recreational facilities for the people who live here today. We are not in a favorable situation of a San Francisco where we can go to Yosemite Park or the Great Redwood Forest at the drop of a hat. Our available open spaces today are limited and crowded. This situation must be corrected if we are to continue to attract and support a desirable work force in this region. The situation of Tocks Island with regard to New York City, New Jersey, and Philadelphia is not unlike the situation within the city of Philadelphia with regard to Fairmount Park. Philadelphia was blessed with foresighted individuals who in order to protect the water supply of the City and to provide for future recreational areas managed to carve Fairmount Park out of the available land area in the City and create a resource within the City which is unmatched anywhere in the world. It is important that we continue the same foresight for the region that our predecessors did for the City of Philadelphia. It is quite apparent that even a recreational area of the size envisioned for Tocks Island will not meet all of our recreational needs. However, Tocks Island facilities can certainly serve as a significant base.

With regard to the environment, we do not deny that the Tocks Island project would have an affect on the environment. Of course it would, just as any type of human endeavor has had such an affect. In this particular case, we are considering not only the environment but the needs of the people of this region for water to drink, water to do business with, and recreational space in which to enjoy life. We believe that these requirements are overriding as opposed to the relative minimal damage which will be done to the environment by careful and responsible construction of the type of project proposed for the Tocks Island area.

To conclude, The PENJERDEL Corporation, in support of the well being of the people of the Delaware Valley and the strength of its economy, urges that authorization be maintained for the Tocks Island Lake Project. Until such times as viable alternatives have been proposed and put into effect, we deem it essential to maintain the option for some type of Tocks Island Reservoir project. To recognize the real need for it now and to avoid the inevitable delay of several years required for new authorization. Further, we urge immediate reconsideration of the development of this project. Delays in construction and its complete abandonment could seriously jeopardize the future of all the people living in the Delaware Valley Area.

STATEMENT

OF

PENNSYLVANIA LEAGUE FOR CONSUMER PROTECTION

ON

SENATE BILL 3106

TOCKS ISLAND LAKE PROJECT DE-AUTHORIZATION

BEFORE

SUBCOMMITTEE ON WATER RESOURCES
COMMITTEE ON PUBLIC WORKS
UNITED STATES SENATE
HON. MIKE GRAVEL, CHAIRMAN

July 23, 1976

Marian Schwalm Furman
Pennsylvania League for
Consumer Protection
2929 N. Front Street
Harrisburg, Pennsylvania 17110

My name is Marian Schwalm Furman. I am a board member of the Pennsylvania League for Consumer Protection and an attorney by profession. The League, a voluntary citizens' organization, was formed in the middle 1960's to develop broad based support for consumer measures which were then just beginning to appear in federal and state legislative bodies. The League is supported by about 200 affiliate member organizations representing a cross section of fraternal, philanthropic, labor and other public interests. Through its affiliate members the League represents over 2 million Pennsylvanians.

We are an affiliate member of the Consumer Federation of America, the leading citizens' consumer organization in the country. The League's Chairman, William F. Matson, serves on that body's board of directors. The Consumer Federation of America has consistently supported, by its formally adopted policy positions and by its communications to the Federal Government, the increased development and use of hydropower.

The League appreciates the opportunity to offer to the Water Resources Subcommittee of the United States Senate our position on Senate Bill 3106. This bill would terminate appropriations for the much needed Tocks Island reservoir on the Delaware River between Pennsylvania and New Jersey. The League opposes S. 3106. We urge the Committee to reject this bill as a short-sighted capitulation to a well-meaning but also short-sighted small minority who oppose the project.

These consumer protection principles dictate that our organization fully support the findings of the independent consultant engaged by DRBC to assess the feasibility of the Tocks Island Project. We have reviewed the full final report and agree with its basic findings. While we do not pretend to have the expertese to assess technical evaluations, the League is firmly in agreement with the perspective of the report.

The development of this existing potential makes mighty good sense when you realize all the precious coal, oil or gas that will be saved by the use of water to produce electricity, when you consider the amount of pollution that will be avoided.

We consider it rather fraudulent to oppose the development of water supply reservoirs for obviously critical public needs, unless the opponent doesn't partake of public water supply.

We consider it fraudulent to oppose the development of more power production capacity unless the opponent is willing to deny himself any of the benefits of electricity.

We consider it fraudulent to oppose the creation of recreational facilities unless the opponent is willing to stay cramped in a small city apartment in his leisure hours.

Or are only those who benefit now from previously developed natural resources to benefit, and future needy potential users be hanged!

Respectfully submitted,

Marian Schwalm Furman

Marian Schwalm Furman
Pennsylvania League for Consumer Protection

STATEMENT

OF

PENNSYLVANIA MUNICIPAL ELECTRIC ASSOCIATION

ON

SENATE BILL 3106

TOCKS ISLAND LAKE PROJECT DE-AUTHORIZATION

BEFORE

SUBCOMMITTEE ON WATER RESOURCES
COMMITTEE ON PUBLIC WORKS
UNITED STATES SENATE
MIKE GRAVEL, CHAIRMAN

July 23, 1976

R. J. Parson, President
Pennsylvania Municipal
Electric Association
2929 N. Front Street
Harrisburg, PA 17110

R. J. Parsons, President of the Pennsylvania Municipal Electric Association submits this statement, opposing Senate Bill 3106 and supporting the Tocks Island project, on behalf of an organization which represents the more than 30 municipally owned electric systems of the Commonwealth.

Although our primary concern is supplying adequate electrical energy to our residents at lowest possible cost, as officials of governing bodies we are also concerned with the ever present problems of flood control, adequate water supplies and public recreational facilities for the high population area covered by the Delaware River Basin. There is no need to belabor the issue of flood control: we are still paying for the ravages of Agnes. The consequences of that flood will remain with us for many years. This cost to taxpayers alone justifies public expenditures for the Tocks Island project.

Our public water supplies are now in great danger from the ever increasing demands being placed upon them. The ocean, always on our doorstep, pushes relentlessly against our rivers, reaching farther and farther upstream as we take more and more water from our rivers. Our underground water tables are threatened with pollution. As new industrial complexes appear, which greatly increase the demand for water, the problem of adequate water supply continues to grow. Tocks Island, with more storage area than all other alternative plans combined, is an obvious means of solving part of our problems.

The need for recreational facilities in the Delaware River Basin Area is not unique. The entire nation is suffering growing pains, but the problem is more intense in this area because of the high population density. Everyone needs a place to relax, a place to escape the problems of urban pollution, over-crowding, traffic jams and crime in the streets. The decline in building new recreational areas has in part brought to existing facilities the very problems that they were designed to eliminate. Once again, the Tocks Island project would help to solve this problem.

Aside from our concern for the flood control, water supply and recreational aspect of the Tocks Island project, the Pennsylvania Municipal Electric Association must stress its continual interest in the development of reliable and economic hydroelectric power generating facilities at the project.

Because small fossil fuel plants are no longer economically and/or environmentally sustainable, Pennsylvania municipals no longer generate their own power except for a very small amount still generated by one or two municipal systems. Without their own generating facilities, the municipals must purchase practically all of their power requirements from the private utilities. Each municipal system purchases separately, with little or no real bargaining power. Since a large portion of the energy produced by the wholesale suppliers is produced from fossil fuels, the fuel cost adjustment clause has become a standard and substantial part of wholesale power rates paid by the municipals. For example,

fuel cost adjustments paid by the Borough of Lehighton (which is within economically feasible transmission distance of Tocks Island Lake) have increased from $611 in March of 1973 to $1,967 in March of 1974 and to $16,948 in March of 1975. For the period of March 1973 to March, 1974, fuel cost adjustments have increased 222%. For the 1974-1975 period, the increase is 762%. For the combined two year period, fuel prices have increased the astronomical amount of 2,674%. Need I say more.

An alternate source of power is desperately needed by Pennsylvania municipal systems for two very important reasons. An alternate natural resource must be developed in order to reduce our dependence on the depleting coal, oil and natural gas supplies; and a competing "supplier" is needed as an inducement to the present suppliers to seek more economical fuel supplies and to keep their rates competitive. The classic law of supply and demand dictates the inevitable fate municipal systems face in Pennsylvania since they are at the mercy of one source of supply, the private utilities.

The Congress of the United States has already given the power to a few private utility companies to install pumped storage hydroelectric power generating facilities at the planned Tocks Island project with the condition that preference customers shall have preference rights. The Pennsylvania Municipal Electric Association is in favor of the installation of pumped storage

facilities, since under the "preference power principle", the Pennsylvania Municipals will be entitled to a percentage of the output of the pumped storage facilities. Not only is this a giant step in reducing this nation's dependence on our depleting fossil fuel supply, but it also represents the beginning of the establishment of a competing "supplier" so desperately needed by the municipals in Pennsylvania.

It has been a bedrock of public policy from the time electricity was first developed and made available on a mass basis that public distribution systems such as local municipalities have "preference rights" to buy energy from publicly developed hydroelectric generation. Municipals have never had access to such a source of power in Pennsylvania. Today all factors point to providing this resource to the ultimate consumers of electricity supplied by the municipals of Pennsylvania.

The "preference power principle" was established by Congress in order to assure both adequate source of supply and reasonable cost to the ultimate consumers of electricity. The Pennsylvania Municipal Electric Association represents the ultimate consumer of electricity. We feel that the "preference power principle" must never be eroded and that the benefits of preference power should be developed and passed on in the fullest extent to the ultimate consumers of electricity.

Therefore, after careful review of the reports issued thus

far by the Delaware River Basin Commission consultants, we are more firmly supportive than ever of the construction and development of Tocks Island Lake as soon as possible. By this I refer to the one large dam which has already been slated for construction. The study completed by URS/Madigan-Praeger, Inc. and Conklin and Rossant indicates that the only alternate would be a series of small flood control dams (15 or 20). This would cause far more political flak and pose more undesirable environmental consequences than the one large dam which has already been slated for construction.

In addition to the pumped storage facilities which have already been authorized, we further recommend that Congress authorize the installation of conventional hydroelectric generating facilities at Tocks Island.

At a time when energy shortages have reached such critical proportions that the Federal Government has given top priority to achieving energy independence in this country, the development as soon as possible of domestic hydropower to its fullest capacity must obviously be part of that priority effort.

Ninety percent (90%) of new hydro capacity now underway at federal projects is being undertaken in the far western United States. Over 50% of existing, federal hydropower is located in the western states. This is not a very equitable distribution of benefits from public resources. It is time that the people of Pennsylvania get some little share, at least, of this public investment.

The governing officials of Pennsylvania municipalities providing electricity to their residents therefore vigorously oppose Senate Bill 3106 and urge its early demise.

Respectfully submitted,

PENNSYLVANIA MUNICIPAL ELECTRIC ASSOCIATION

R. J. Parsons, President

PHILADELPHIA SUBURBAN WATER COMPANY
Statement
to the United States Senate Subcommittee on Water Resources,
Committee on Public Works, in the Hearing of July 23, 1976,
on the Proposed Deauthorization of the Tocks Island Project

Mr. Chairman:

The Philadelphia Suburban Water Company is responsible for the public water supply to an area of 272 square miles and includes 50 townships and boroughs in Chester, Delaware, and Montgomery Counties, serving a population in excess of 832,000.

While this Company does not at this time receive a supply from the Delaware River, it is indirectly affected by industries and important power projects that presently do and, in the not too distant future, will receive supply from the river. An adequate and assured water supply to the Delaware River Basin area is an absolute necessity if the area is to survive economically. The single most important project to provide assurance of an adequate water supply to the major industrial and commercial area of the Basin is the Tocks Island Reservoir Project.

This project was conceived prior to the year 1960 and has received the support of four presidential administrations, equally divided in political persuasion. The Congress has provided millions of dollars for design, land acquisition, and construction. This money was appropriated in response to a justified need based on responsible study which produced the Tocks Island Reservoir Project.

It is a well-conceived project, based on sound engineering principles. It will provide the necessary augmentation to stream flow to improve and maintain water quality in the river. It will also provide the much needed flood control to prevent the annual property damages. Incidentally, if the concentration of rainfall from one or more of the hurricanes of recent years had altered slightly, the Tocks Island Project by popular demand would be nearing completion at this time. In addition to the other benefits to be derived from this project, there is recreation and electric power generation.

It is difficult to conceive how a project having some 14 years of study, planning, and approval by seriously-concerned and responsible people and organizations can suddenly reach the status of being considered for deauthorization because of objections being raised by persons and organizations having no responsibility for the general well-being of the community now or in the future.

For these and other reasons, we strongly recommend that the Tocks Island Reservoir Project be constructed without further delay, and therefore urge that Senate Bill 3106, which provides for the deauthorization of this project, be defeated.

We appreciate the opportunity to present our view on this proposed legislation.

PHILADELPHIA SUBURBAN WATER COMPANY

By John McKay Jr.
Vice President-Engineering

John F. McDonald
Vice President
Governmental Affairs

Public Service Electric and Gas Company 80 Park Place Newark, N.J. 07101 201/622-7000

July 20, 1976

The Honorable Mike Gravel
Subcommittee Chairman - Water Resources
Room 4204 Dirksen Senate Office Building
Washington, D. C. 20510

RE: Senate 3106

Dear Senator Gravel:

This bill would terminate the authorization for the development of the Tocks Island Project, the primary purpose of which was to provide an adequate water supply and to provide for flood control for the states in the Delaware River Basin.

The proponents of this bill claim that the de-authorization of the project is necessary to allow development of alternate means of meeting the water supply and flood control needs of the area.

It is respectfully submitted that the authorization of the Tocks Island Project should not be terminated until the need for such project has been disproved and until an alternate plan for adequate water supply for the State of New Jersey is developed.

It is therefore suggested that action on this bill be deferred until officials of the State and Federal Governments develop a plan for adequate water supply for New Jersey.

Sincerely,

John F. McDonald

JFMcD:vr

STATEMENT OF WATER RESOURCES ASSOCIATION OF THE DELAWARE RIVER BASIN BEFORE THE WATER RESOURCES SUBCOMMITTEE OF THE SENATE PUBLIC WORKS COMMITTEE ON S.3106 - A. BILL TO DE-AUTHORIZE TOCKS ISLAND DAM PROJECT, JULY 23, 1976, WASHINGTON, D. C.

Mr. Chairman:

I am Paul Felton, Executive Director of the Water Resources Association of the Delaware River Basin. WRA is a non-profit citizen organization with 800 members who represent a wide variety of concerned groups such as service clubs, garden clubs, watershed associations, professional societies, conservation groups and members of business within the 13,000 square mile Delaware Basin. Our common interest is the wise use and development of water in this Delaware River Basin. We are concerned about saving lives during coming floods. We are concerned with providing adequate supplies of water for a growing population and its job-providing industries. We are concerned with providing enough electric power for our communities, and all of these mean providing a lot of water storage which we do not have now. We are concerned with providing necessary outdoor recreation opportunities for our people along the two main water courses: the Schuylkill River Corridor and the Upper Delaware River Scenic and Recreation (National River) area along with utilizing publicly funded water supply and flood control reservoirs for recreation use. These latter, because of their pool size, can provide much more environmentally acceptable use than run of the river areas and they are more easily managed.

Gentlemen, we strongly object to deauthorizing the Tocks Island Dam and Reservoir Project. We believe this project will help provide a good portion of the water-oriented amenities I have just recited and we list ten further reasons, thus -

(more)

1. All of the water needs spelled out by the Tocks Project are legitimate and would be met by that project.

2. Tocks Island Lake Project is best for economic efficiency.

3. Tocks Island Lake Project is best for net benefits.

4. Tocks Island Lake Project is best for employment.

5. Tocks Island Lake Project has the least water cost.

6. Tocks Island Lake Project is a known, definable and realizable alternative.

7. Tocks Island Lake Project has least power supply cost.

8. Tocks Island Lake Project is already authorized for Federal development and funding.

9. Problems of regional growth are now occurring and will continue to occur regardless of Tocks. Tocks Island Lake Project would focus and provide Federal help to refine planning and minimize the adverse effects of that growth.

10. Governor Byrne of New Jersey, who voted to hold up construction, is himself not willing to have it deauthorized.

To sum it up, until all of the problems for which Tocks Dam was authorized have been fully resolved, we urge you to vote no on Senate Bill 3106.

# # #

