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**REPORT**  
**OF THE**  
**PORT RARITAN**  
**DISTRICT COMMISSION**  
**TO THE**  
**LEGISLATURE OF THE STATE**  
**OF NEW JERSEY**

JANUARY 5, 1939

TWELFTH ANNUAL REPORT  
*of*  
PORT RARITAN DISTRICT COMMISSION

C. PARKER RUNYON, Chairman  
Stelton, N. J.

ASHER ATKINSON  
New Brunswick, N. J.

THOMAS J. KELLY  
Perth Amboy, N. J.

MAX FOCHTMANN  
Piscataway, N. J.

J. RAYMOND MALLOY  
South Amboy, N. J.

KLEMMER KALTEISSEN  
Director, Board of Freeholders  
New Brunswick, N. J.

JOHN F. RYAN  
Woodbridge, N. J.

WILLIAM CHEVALIER  
Sayreville, N. J.

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CLIFFORD COSGROVE  
New Brunswick, N. J.

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Office of the Commission  
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JANUARY 5, 1939

## EXPLANATORY NOTE

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The Port Raritan District Commission was created by the 1926 New Jersey Legislature (Chapter 337 P. L. 1926). The Commissioners are nine in number and have the jurisdiction and powers set out in this Act.

The Port Raritan District consists of Middlesex County, together with the Raritan River from the head of navigation at New Brunswick to Raritan Bay and all other lands and waters of Raritan Bay and the Arthur Kill contiguous thereto. It is one of the three port commissions in the State of New Jersey, the best known and oldest of which is the port commission formed in conjunction with the State of New York known as the Port of New York Authority. The other port commission is the South Jersey Port Commission which includes Trenton and the important Camden section and all of South Jersey.

## TO THE LEGISLATURE OF NEW JERSEY

This is the Twelfth Annual Report of the Port Raritan District Commission and it is submitted for the year 1938, during which period much waterway progress has been accomplished in the Port Raritan District. During that year, we were again able to realize the great benefits which were derived by the construction and maintenance of the three-ship anchorage basin and cut-off channel for ocean-going vessels constructed by the Federal Government within a mile of the municipalities of Perth Amboy, South Amboy and Staten Island, Borough of Richmond.

These improvements have supplied to this port waterway facilities which are being recognized and used by shippers in almost every part of the world. The Federal Emergency Administration of Public Works spent about \$1,750,000 for these two projects. The three-ship anchorage basin has a controlling depth of 33 feet at mean low water. The cut-off channel has a depth of 20 feet at mean low water for its full project width of 800 feet. This Commission is proud to report the completion of its endeavors as far as these two major improvements are concerned because the economic justification for the construction of these important waterway projects has been definitely established.

The growth and importance of the Port of Perth Amboy which is in the heart of the Port Raritan District, is indicated by a memorandum provided by the United States Customs Service at our request, for the fiscal year ending June 30, 1938. This memorandum shows total receipts on duty imposed of \$1,089,155.64; number of vessels from foreign ports 110 with vessel net tonnage of 306,136; intercoastal vessels from the Pacific coast 30 in number, vessel net tonnage 101,866; coast-wise vessels 206, approximate vessel net tonnage 677,100. Gross tonnage of coast-wise not available, as entrance and clearance are not necessary at Customs House. Memorandum shows the total value of importations to be \$57,155,076. Total value of exportations is not available at this time.

In addition to the figures above mentioned, there are between 250 and 300 ships per year using local waters and arriving at Port Socony, Staten Island. This does not take into consideration the ships which deliver cargoes to points north of the Rahway River (including Newark, N. J.). These are coastwise and are not required to enter and clear. An approximate estimate of the vessel net tonnage of ships without the cargo is well over 1,000,000 tons. Confining the figures to these types of vessels alone, there were over 800 ships which passed through local waters for the fiscal year ended June 30, 1938.

The importance and justification of the work of the Port Raritan District Commission in the Raritan Bay District cannot be questioned after reading these figures. The Commission is giving its full support to all works undertaken or about to be undertaken by the Federal Government in connection with improvements affecting the Port Raritan area.

This report is designed to present a brief chronological record up to and including the year 1938 of the major projects sponsored by this Commission. During the year many matters of lesser importance were given necessary attention by the Commission but a full report of all of these matters would be too voluminous to attempt. By presenting such a limited review, the new members of the Legislature will be able to familiarize themselves with what has already been accomplished and those members of the Legislature who are already familiar with our progress, will be able to follow the course of action up to the close of 1938.

### **Raritan River New Dredging Project Perth Amboy to New Brunswick**

This Commission has long advocated a new dredging project by the Federal Government from Perth Amboy to New Brunswick. It was due to the demands of industries located on the river during 1937, that steps were taken for this improvement.

On November 8th, 1937, at a regular meeting of the Commission, a resolution was adopted authorizing Counsel Jacob M. Klein to take the necessary procedure for the development of a new 15-foot minimum draft channel in the Raritan River to New Brunswick. At high water this would provide a depth of between 20 and 21 feet.

Under previous projects adopted by Congress for the improvement of the Raritan River, a section of the channel from the entrance at Washington Canal at Sayreville to New Brunswick has been dredged to depths of 10 feet below mean low water in soft material and 11 feet below mean low water in rock for the width of 100 feet. The new project is of major importance because it will permit deeper draft vessels to serve the industries which have located on the Raritan River in recent years between Sayreville and New Brunswick and will also provide a selling point for new industries to locate in that section.

In the summer of 1937 a large refining company which is located at Piscataway on the Raritan River sought the cooperation of this Commission in improving the Raritan River because they were having difficulty with barge owners who refused to load up to more than 9½ to 10 feet depth and even then would go in and out of the river at high tide only. They complained that many of the tugs used in hauling the oil barges draw 10 to 10½ feet of water and that the tug-boat owners complained that a rock ledge formation at Sayreville made it hazardous for

their tugs and barge cargoes to move except at high tide, which operation increased the rates excessively to this industry. The company contemplates barging over 150,000 barrels of crude oil each month into its refinery and barging out approximately the same amount in refined products each month, making a total of 300,000 barrels of material to be barged in and out of the Raritan River monthly.

In accordance with the resolution, Counsel Jacob M. Klein accompanied by a delegation from this Commission, appeared in Washington and through the cooperation of Congressman William H. Sutphin, the matter was brought to the attention of the Rivers and Harbors Committee and other officials who are charged with the responsibility of such matters.

On November 26, 1937, this Commission was notified by Congressman Sutphin that the House Committee on Rivers and Harbors passed a resolution on November 23rd requesting the Board of Engineers for Rivers and Harbors to review the reports on file on the Raritan River with the view to determining if the existing project below New Brunswick should be modified in any way.

On February 8, 1938, a notice was issued by Lt. Col. David McCoach, Jr., District Engineer, advising that a public hearing would be held in the Assembly Room, Second Floor, Army Building, 39 Whitehall Street, New York, N. Y., at 10:30 A. M., Tuesday, March 15, 1938, to obtain information for use in the preparation of the report requested in the said resolution of November 23, 1937. Mr. Klein arranged with the proponents of this improvement to be present at the hearing.

The meeting was called to order by Major J. F. C. Hyde, Corps of Engineers, who presided. Others of the staff who were in attendance were Lt. Col. David McCoach, Jr., District Engineer; C. D. Mayhew, Senior Engineer; C. C. Berger, Associate Engineer, and H. C. C. Weinkauff, Assistant Engineer.

The following persons representing the interests indicated, were present at the hearing: Asher Atkinson, New Brunswick, N. J., Port Raritan District Commission; C. S. Atkinson, New Brunswick, N. J., Chamber of Commerce; W. H. Baldwin, 501 Grand Avenue, Asbury Park, N. J., Jersey Central Power and Light Co.; H. J. Branigan, 17 State Street, New Brunswick, N. J., Gulfport Shipbuilding Co.; W. F. Buchanan, Metuchen, N. J., Engineer of Port Raritan District Commission; Joseph P. Chapman, 1060 Broad Street, Newark, N. J., New Jersey State Board of Commerce and Navigation; Walton Clark, Jr., 102 Broadway, New York City, Seaboard Refining Co.; Capt. Thomas F. Cox, 25 South Street, New York City; Thomas F. Dolan, 176 Washington Road, Sayreville, N. J., Port Raritan District Commission; J. J. Fulenwider, Wilmington, Delaware, Hercules Powder Co.; Frederick D. Hahn, 419 Westminster Avenue, Elizabeth, N. J., Crossman Co.; S. W. Haley, 70 Pine Street, New York City, Seaboard Refining Co.; H. A. Hennessy, Carteret, N. J., Carteret Industrial Association; George W. Janssen,

17 Battery Place, New York City, C. W. Crane & Co., Inc.; J. R. Ketcher, South Amboy, N. J., Jersey Central Power and Light Co.; Jacob M. Klein, 313 State Street, Perth Amboy, N. J., Counsel, Port Raritan District Commission; A. G. Neighbour, Jersey City, N. J., Central Railroad of N. J.; Glenn S. Reeves, 111 Eighth Avenue, New York City, Port Authority; C. Parker Runyon, Perth Amboy Dry Dock Co.; and chairman of Port Raritan District Commission; H. Albert Seiffert, 38 Remsen Avenue, New Brunswick, N. J., The Association for the Preservation and Improvement of the Delaware and Raritan Canal; Morgan R. Seiffert, Borough of Highland Park, N. J.; State of New Jersey Delaware and Raritan Canal Commission; A. H. Simpson, 111 Eighth Avenue, New York City, Port of New York Authority; M. W. Taylor, Engineer, City Hall, New Brunswick, N. J., City of New Brunswick; Henry H. Troger, Jr., R. F. D. 1, New Brunswick, N. J., Raritan Township Commissioner of Public Affairs; Harold L. Valentine, 21 West Street, New York City, Val-Line Lines, Inc.; A. J. Wight, Plainfield, N. J., Calco Chemical Co.

Major Hyde requested Counsel Jacob M. Klein of this Commission to present the case for the proponents, which was done. Upon the completion of testimony and the presentation of evidence, the hearing was closed and the matter taken under advisement by the office of the District Engineer.

On June 17, 1938, a notice was issued by Col. E. L. Daley, Division Engineer, that the review of reports authorized by the resolution adopted November 23, 1937, by the Committee on Rivers and Harbors, House of Representatives, "has been made and is unfavorable to further improvement of the Raritan River," below New Brunswick, beyond that provided for in the existing federal project. This adverse conclusion is based on the finding that the benefits from further improvement would be small and substantially local in character. The requirements of existing and reasonably prospective commerce are amply provided for under the existing project.

An appeal from this adverse finding was filed with the Board of Engineers for Rivers and Harbors, Washington, D. C., by Counsel Klein in behalf of this Commission. As a result, a hearing was fixed by the Board to be held before the entire Board of Engineers for Rivers and Harbors, War Department, 2848 Munitions Building, Washington, D. C., on September 27th, 1938, at 9:00 o'clock A. M. Those present from this Commission were Chairman C. Parker Runyon, Asher Atkinson, William Chevalier, W. Franklin Buchanan and Mr. Klein, who argued the appeal before the Board. In addition to the Commissioners who addressed the Board, Joseph Sterling, Chairman of the Delaware and Raritan Canal Commission, made a presentation of reasons favoring a further improvement of the Raritan River from Perth Amboy to New Brunswick.

The appeal is still under consideration by the Board of Engineers for Rivers and Harbors and an early report is anticipated. This Com-

mission feels that the arguments presented for the improvement of the Raritan River at the expense of the Federal Government are based on sound reasoning and substantial fact. While we look for a favorable report, if the findings should be otherwise, we will continue to sponsor this improvement with vigor and expedition for the reasons stated.

### New Jersey Ship Canal

The great Atlantic Intra-Coastal Waterway System has been connected from Key West to Trenton on the south and from New York to Boston and the Great Lakes on the north and west, but the construction of the New Jersey Ship Canal known as the "missing link" is yet unauthorized.

On April 11th, 1936, the "missing link" of the southern chain of waterways was opened at Socastee Bridge near Myrtle Beach, South Carolina. The opening of this link completed a 1,435 mile inside route from Trenton, N. J., to Miami, Fla. The canal across New Jersey would intersect one of the most populous and one of the greatest industrial states in the country. It would connect the Delaware River and the cities located thereon with New York Bay on which is located the commercial metropolis of the nation. As to commerce between New York and Philadelphia, it would save a tortuous journey via the Delaware River and the ocean to New York Bay, and the hazards to such coast-wise navigation. It would promote the movement of commerce between New York and Boston on the north, and Philadelphia, Baltimore and Norfolk and other cities on the south. It would materially cheapen the cost of movement of traffic between these points. Yet, the construction of this great canal is unauthorized to date.

In March, 1936, the Chief of Engineers of the United States Army transmitted a letter which is a part of document 93, 74th Congress, 2nd Session, Committee on Rivers and Harbors, House of Representatives, U. S., which reported unfavorably on this momentous project. Instead of going into a detailed historical resume of this project from its inception, it is considered advisable to set forth a copy of Major General E. M. Markham's letter. This letter will tend to familiarize those who are unacquainted with the magnitude of this improvement, with some of the facts and figures which were compiled by the Special Board and will also, by the reading thereof, show why the unfavorable decision was made at this time.

WAR DEPARTMENT  
OFFICE OF THE CHIEF OF ENGINEERS  
Washington, March 28, 1936

"Hon. J. J. Mansfield,  
Chairman, Committee on Rivers and Harbors,  
House of Representatives, Washington, D. C.

My dear Mr. Mansfield:

1. The Committee on Rivers and Harbors of the House of Representatives, by resolution adopted March 29, 1934, requested the Board of Engineers

for Rivers and Harbors to review the reports on New York Bay-Delaware River section of the intra-coastal waterway, submitted in House Document No. 219, Seventy-third Congress, second session, and the prior reports on this waterway, with a view to determining the advisability of constructing the waterway described in the aforesaid report, at the present time. I enclose herewith the report of the Board in response thereto.

2. The New York Bay-Delaware River section of the intra-coastal waterway is a proposed canal extending across the State of New Jersey from the head of Raritan Bay, an arm of New York Bay, to the Delaware River, a distance in an air line of 30 miles. The plans proposed a deep land cut to afford a canal with a depth of 27 feet and a bottom width of 250 feet. The water level in the canal would be maintained at an elevation of 10 feet above mean low tide by dams and locks in the Raritan River at Sayreville, and in the Delaware River at Bordentown. The estimated construction cost was \$210,000,000, exclusive of the cost of rights-of-way and spoil-disposal areas. In accordance with the terms of the authorization, the report under review was limited to finding and recommending the most desirable route for the waterway, with estimates of cost. The present report is directed to the advisability of the improvement.

3. An exhaustive investigation into the prospective traffic and transportation savings to be anticipated from the construction of the canal was made by a special board. The board found that a large movement of coal from Philadelphia to New York Harbor is to be expected with the present rate structure, that other traffic now carried by rail could be carried on the canal at a substantial saving, and the shorter route afforded for ships in the foreign, intra-coastal and coast-wise trade between the ports of New York, Philadelphia, and Baltimore would effect a further saving. The special board estimated total savings of \$5,000,000 in 1940, \$8,850,000 in 1950 and \$9,050,000 in 1960. It found it advisable to make certain modifications in the plan, including the elimination of the dam in the Delaware River. These modifications would reduce its total estimated cost (including interest during construction) to \$195,390,000 with small decreases in its estimated savings. The total annual fixed and operating cost was found to be \$9,874,000. Comparing the benefits with the carrying charges, the special board recommended that the waterway be reported as not economically justified at the present time.

4. The Board of Engineers for Rivers and Harbors has carefully reviewed the estimates prepared by the special board, and has considered the data presented at a public hearing held by the Board. It is of the opinion that the direct savings to be anticipated from the construction of the canal would be materially less than the amounts estimated by the special board, since because of the convenience of delivery some shippers would prefer to retain the present shipping routes and since adjustment of rail freight rates to meet water competition is also to be anticipated. The Board fully recognizes the indirect benefits to be anticipated from the construction of the canal in affording the last link in a protected coastal route between northern waters and southern Florida, as well as the value of the route for naval and commercial use in time of war. It points out, however, that against these indirect advantages must be balanced the inherent disadvantages, one of which is the limitation imposed by the essential need for preventing the intrusion of salt into the Delaware River, as this river is a source of important municipal and industrial water supply. After an exhaustive study the Board concludes that with careful management the canal is afforded adequate depth to provide for a draw-down during the dry season, and that water is diverted from the Delaware in the amount of 200 cubic feet per second. The available water supply appears insufficient for the operation of a canal affording a depth in excess of that necessary for vessels of 25-foot draft, until the communities on the lower Delaware have provided themselves with water supply for domestic and industrial purposes independent of the waters of the estuary. These limitations on the use and expansion of the waterway must, in the opinion of the Board, be weighed against its imponderable advantages, particularly in meeting future emergencies of war. The Board further points out that while the plans provide for bridges over the canal with clearances designed to reduce to a minimum delays in the heavy traveled lines of rail and highway connecting the metropolis of New York with the New Jersey beaches, and while the residual delays would in no sense

be intolerable, the construction of the canal would be an inconvenience to this movement. The over-all cost of the canal, with the modifications developed by this further investigation, are estimated by the Board at \$207,110,000 and the annual cost at \$10,407,000 with interest at 4 per cent or \$8,435,100 with interest at 3 per cent. The Board concludes that the reasonably assured savings in the cost of transportation are insufficient to warrant the great expenditures necessary for the construction of the canal, even when the less tangible advantages to be anticipated from its construction are fully considered, and reports that the construction of the waterway is not advisable at the present time.

5. After due consideration of these reports, I concur in the views and recommendations of the Board.

Very truly yours,

E. M. MARKHAM,  
Major General  
Chief of Engineers."

This letter will show that the report is favorable to the canal on its merits but is adverse to the construction of the Ship Canal "at the present time" because of costs. It is interesting to note among other things, the report says that

"The Board fully recognizes the indirect benefits to be anticipated from the construction of the canal"; that

"It would afford the last link in a protected coastal route for small craft between northern waters and southern Florida"; that

"The Secretary of the Navy has stated that the canal would be of value to the Navy in time of war, particularly if the main theatre of operations were in the Atlantic Ocean"; that

"It would afford a route for commercial shipping into the port of New York from the south, free from the menace of submarines in war"; and that "The future development of industries on the upper tidal Delaware and the Raritan might eventually produce traffic through the canal not now foreseen."

While the report constituted a temporary set-back to the advocates of the New Jersey Ship Canal, that part of the report which is favorable adds encouragement to the zeal, the ambition and the inspiration of those who contend that this great waterway must some time be authorized and constructed by the Government of the United States. It is felt that the objections promulgated by the special Army Board raise controversial questions which, after restudy will result in conclusions more favorable if not entirely so, to the authorization of this project. To cite one example of many, it is pointed out by the canal advocates that rate of interest at 4%, or even 3%, used by the Army Board in estimating the annual cost is excessive, and that with current low interest rates on Federal funds, 1½% or 1¾% should be a fair rate in calculating fixed costs. This item alone, according to the sponsors, would, in relationship to the saving on tonnage, economically justify the construction of a canal at the present time. This and other matters will be included in the future plan of presentation for reconsideration of the whole proposition and it is hoped that with the same kind of energetic and logical argument in favor of this project which has prevailed in the past, favorable results will be attained.

We have received much encouragement from Major General Markham by the following words expressed by him at Socastee Bridge, South Carolina, April 11, 1936, when among other things he said "while our recent report to Congress on the proposed Ship Canal across the State of New Jersey found that the cost of the improvement was considerably in excess of the anticipated benefits, it is still possible to visualize in the not too distant future, the provisions of a completely protected route extending from New York City to Miami, and connecting with the Gulf route to Corpus Christi."

In the early part of 1936, President Moore of the Atlantic Deeper Waterways Association appointed a committee to promote the construction of the Ship Canal across New Jersey. The Committee is constituted as follows: Mayor Thomas B. Stockham, Morrisville, Pa., chairman; Frank S. Davis, Boston; Judge William E. Woollard, Albany, N. Y.; Mayor J. Fulmer Bright, Richmond, Va.; Mayor Walter H. Blair, Wilmington, N. C.; Mayor Frederick Von Nieda, Camden, N. J.; H. H. Buckman, Jacksonville, Fla.; W. Paul Starkey, Morrisville; J. H. Wood, Newark, N. J.; N. F. S. Russell and J. K. Hiltner, Burlington, N. J.; Jacob M. Klein, Perth Amboy, N. J.; E. M. Keely, Philadelphia; Arthur W. Dover, Trenton, N. J.; S. P. Hazard and Charles Warner, Philadelphia.

This Committee meets from time to time at important sessions and is continuously making constructive plans for future action in connection with the waterway.

In accordance with a resolution of the Committee on Commerce of the Senate of the United States, dated December 15, 1936, and by authority of the Secretary of War, a Special Board of Engineers appointed by the Division Engineer, North Atlantic Division, has been directed to submit a report in review of the report on the "New York Bay-Delaware River Section of the Intra-coastal Waterway" contained in House Document 93, 74th Congress, second session, and prior reports, with the view to determining the advisability of constructing a waterway of lesser dimensions for the New Jersey Ship Canal than those considered in two recent reports on this section.

Preparation of the report was undertaken by the Special Board of Engineers with headquarters in the United States Engineer Office in Philadelphia. An important hearing was held on Wednesday, July 14th, in the Customs Court Room, 300 Customhouse, Second and Chestnut Streets, Philadelphia, Pa. Oral arguments were presented as well as written briefs for and against the Ship Canal. This Commission submitted a brief in support of the waterway even at lesser dimensions. Many organizations were represented and the Special Board headed by Lt. Col. John C. H. Lee, Corps of Engineers gave every one an opportunity to be heard. Counter briefs have also been submitted and the Special Board of Army Engineers is now engaged in a serious study of the mass of testimony presented in the project. We have been advised that the report on the Ship Canal when completed will be merged with

that of the Delaware and Raritan Canal and that the recommendations of the Board will dispose of both projects at the same time.

It is natural for this Commission to be vitally interested in and work for the New Jersey Ship Canal in view of the fact that the entrance to the Canal at or near Sayreville on the Raritan River would be located in the heart of the Port Raritan District. Ocean-going vessels carrying an estimated cargo tonnage of 10 to 12 million tons per year would bring to the Port Raritan District, world-wide recognition. Vacant acreage located at the very edge of our deeper channels served by rail and improved highways, with the construction of the Ship Canal would develop into one of the greatest industrial ports in the United States.

### Delaware and Raritan Canal

Much work has been done during the current year regarding the problem of rehabilitating the Delaware and Raritan Canal to the end that the Federal Government shall own and operate this waterway as a Federal project. In order that the new members of the Legislature of New Jersey may be familiar with a brief chronological review of the facts concerning this important matter, it is considered advisable to set forth some of the salient details.

In February, 1933, the Pennsylvania Railroad informed the Board of Public Utility Commissioners that it had formed plans for the abandonment of the canal. The railroad also advised the Board that it would not reopen the canal on March 1st of that year but that operations would cease, commencing with that date. As far back as 1913, the Board of Public Utility Commissioners issued an order which required the canal operators to reopen the waterway for public use from March 1st to December 21st of each year.

The Pennsylvania Railroad took exception to the order and claimed that the "said order of the Board is a service order which is effective, if at all, only when the canal is in operation and could not under the act of New Jersey constituting the Board of Public Utility Commissioners and creating their powers, be construed so as to interfere with the abandonment of the operation of the canal". The canal was not opened for operation on March 1st. Subsequently, the Pennsylvania Railroad made application to the Board of Public Utility Commissioners for leave to abandon. As a result of this application, hearings were held in Trenton and considerable testimony was presented to the members of the Board. Among those who attended the hearings in support of the Board's order were Joseph Sterling and Morgan R. Seiffert, counsel for the Somerset Canal Association and the Association for the Preservation and Improvement of the Delaware and Raritan Canal; Grover D. Kipsey, counsel for the Board of Freeholders, Somerset County, and Jacob M. Klein, counsel for the Port Raritan District Commission.

It was argued by the opponents of abandonment that the Board of Public Utility Commissioners should not consider the application for

abandonment because the applicants were not carrying out the terms of the order requiring operation of the canal. The Board reserved decision on the application and subsequently granted the motion of dismissal and applied for a mandatory injunction to compel operation by the lessee. Then followed certain litigation in the State and Federal courts which was undetermined at the time the State of New Jersey acquired the Delaware and Raritan Canal from the United New Jersey Railway and Canal Company after abandonment by the Pennsylvania Railroad.

In a brief submitted to His Excellency, A. Harry Moore, Governor of the State and the members of the Senate and Assembly in behalf of the preservation and improvement of the Delaware and Raritan Canal, which brief was subscribed by the Port Raritan District Commission, many important points were developed as follows: The State has the present power to take possession of the canal and feeder, to vest itself with title thereto and to use or dispose of the canal as the State Legislature may deem proper; the abandonment of the canal would decrease the potential potable water supply of the Millstone and Raritan Rivers, approximately 10 million gallons daily; abandonment of the canal would mean depreciation in value of property and tax losses to the State; the importance of the Delaware and Raritan Canal as a link in the Atlantic Intra-Coastal Waterway system; the future of the canal as a free water highway under operations by the Federal Government including commercial, industrial and recreational advantages; the Delaware and Raritan Canal is the only canal of any importance in the whole country that is privately owned; the value of the canal to pleasure boat owners; the canal is valuable for national defense.

At the request of this Commission, Congressman William H. Sutphin introduced a bill in the House of Representatives authorizing preliminary examination and survey of the Delaware and Raritan Canal. The bill was referred to the Committee on Rivers and Harbors. No fund having been appropriated by Congress for this work, the preliminary examination and survey were not made.

The Legislature by Chapter 139, Laws of 1934, by the passage of "an Act to provide for the possession of the Delaware and Raritan Canal by the State of New Jersey", took possession of the canal and "that in and by and upon such taking of possession, title to said canal and feeder, the appendages thereto and the works and improvements erected thereon shall be deemed to be and shall thenceforth be vested in the State of New Jersey, to be thereafter used or disposed of as the Legislature may deem proper."

The Act empowered the State Highway Commission to enter upon and take possession of the canal and feeder. By Chapter 238, Laws of 1934, the Department of Conservation and Development was empowered and directed to enter upon and take possession and was delegated other powers contained in the said Act. The Department of Conservation and Development was also empowered and directed to accept a quit claim

deed or deeds from the United New Jersey Railroad and Canal Company and the Pennsylvania Railroad or either of them, of their rights in and to the canal and feeder.

The State of New Jersey memorialized Congress to have the Federal Government take over this canal from the State by resolution passed at the 1934 Session of the New Jersey Legislature. A copy of the resolution (Joint Resolution No. 6) follows herewith:

"A JOINT RESOLUTION memorializing the Congress for acquisition by the Federal Government of the Delaware and Raritan Canal.

WHEREAS, The State of New Jersey has recently acquired the Delaware and Raritan Canal from the United New Jersey Railway and Canal Company after abandonment by the lessor, the Pennsylvania Railroad, in accordance with charter of the United New Jersey Railway and Canal Company; and

WHEREAS, the Federal Government now owns and operates the greater portion of the inland waterways from Maine to Florida; therefore,

BE IT RESOLVED BY THE SENATE AND GENERAL ASSEMBLY OF THE STATE OF NEW JERSEY:

1. That the Governor and Legislature of the State of New Jersey do memorialize the Federal Congress to enact legislation providing that the Federal Government shall acquire from the State of New Jersey at a cost of one dollar (\$1.00) the property of the Delaware and Raritan Canal, together with such land, buildings and equipment as are turned over by the United New Jersey Railway and Canal Company under the provisions of chapter one thousand nine hundred and thirty-four.

2. That the Federal Congress provide for the operation of the canal for navigable purposes; and

BE IT FURTHER RESOLVED, that this joint resolution, signed by the Governor and under the Great Seal of the State, be transmitted to the Vice-President of the United States and the Speaker of the House of Representatives, as the presiding officers of their respective branches of the Federal Congress.

3. This joint resolution shall take effect immediately.

Approved June 11, 1934."

In accordance with Joint Resolution No. 9, a commission was appointed by the Legislature to furnish information as to costs of improvement, maintenance and anticipated revenues of such canal as a navigable waterway as shall facilitate the Federal Government in obtaining data which will be inducive to the taking over of the Delaware and Raritan Canal by the Federal Government. A copy of the resolution (Joint Resolution No. 9) follows herewith:

"JOINT RESOLUTION providing for the appointment of a commission to furnish information relative to the operation of the Delaware and Raritan Canal by the Federal Government.

WHEREAS, Under Joint Resolution No. 4 of the legislative session of one thousand nine hundred and thirty-four, the State of New Jersey took title to and possession of the property of the Delaware and Raritan Canal; and

WHEREAS, it is desirable that this canal be opened and operated for navigation and it is believed that this can most satisfactorily be accomplished by the Federal Government; and

WHEREAS, the Congress of the United States has provided for a survey of such canal and the cost of improvements and maintenance as a navi-



state that comprehensive study by the Commission was favorably indicated at a hearing before the Special Board of Army Engineers which was held in the City of Newark, N. J., on October 21st, 1937. The facts were ably presented by Joseph Sterling, chairman of Delaware and Raritan Canal Commission, and also Morgan R. Seiffert, secretary, together with others who spoke in favor of the survey. A printed brief which contained a wealth of facts and figures in support of the survey is available to the members of the Legislature and there is no need to reiterate the same in this report.

Naturally, controversial discussions arose regarding the relative values of both canals, namely: the New Jersey Ship Canal from Sayreville to Bordentown which has been advocated for more than 30 years and the Delaware and Raritan Canal from New Brunswick to Bordentown which has been advocated since the abandonment of the latter waterway by the Pennsylvania Railroad. The two schools of thought are distinct in that they represent a sincere and conscientious belief as to the advantages of one canal over the other. As in the case of the New Jersey Ship Canal, this commission is vitally interested in the improvement of the Delaware and Raritan Canal and will continue to support the interests of the State of New Jersey in reference thereto. Our position of earnest willingness to serve both sponsorships may best be expressed by quoting from the brief prepared by Counsel Jacob M. Klein supplemental to the July hearing on the Ship Canal matter as follows:

"This Commission in serving the interests of the Port Raritan District in New Jersey which is an integral part of the great waterway system along the Atlantic Seaboard and of the United States has included in its program the sponsorship of the rehabilitation of the Delaware and Raritan Canal which extends from New Brunswick at the head of navigation on the Raritan to Bordentown on the Delaware. This waterway is now having the attention of a Special Board of the Corps of Engineers under a survey which was authorized some time ago. We do not consider this to be the opportune time to go into the relative values of this waterway as compared with a new canal across the State of New Jersey. As in the past, however, we will state our favorable position in reference thereto at the proper time. We have great faith and confidence in the ingenuity, integrity and fairness of the Corps of Engineers and while up to the present time we have had disappointments as a result of unfavorable reports concerning both waterways, we shall continue to confine our inspirations to the trends of that great body of men in the service."

The brief presented by the Delaware and Raritan Canal Commission to the Special Board of Army Engineers indicates a real interest in the future of the Delaware and Raritan Canal. Now that the Special Army Board has before it all of the available information up to the present time, it is hoped that there will be an authorization for a Federal survey. This commission will continue to interest itself toward that end.

A report by the Special Board is now being prepared and it is expected that during the early part of the 76th Congress, the joint report on this canal as well as on the New Jersey Ship Canal will be submitted in full.

## Anti-Garbage and Pollution Activity

During the summer of 1938 official information was disseminated in the Port Raritan area which tended to substantiate rumors that the Sanitation Department of New York City was making plans to dump 5,000 tons of raw garbage daily on the marshlands, Freshkill Creek, Richmond Borough, Staten Island, which represents the daily collection of garbage and refuse from the Boroughs of Manhattan, Bronx, Richmond and Queens. This Commission in conjunction with other agencies in Middlesex County coordinated their efforts in making an investigation of the facts.

Sufficient proof was gathered that such a plan was being discussed in New York to the end that the matter was brought to the attention of the officials of the State Government, not only by this Commission but also other agencies in this section of the State. Greenridge, Staten Island, is located on the Kill von Kull, the said waterway being a part of the New York and New Jersey channels between the Borough of Richmond and the State of New Jersey, and as such is contiguous to the Arthur Kill, Raritan Bay and Raritan River. In the Raritan Bay district, municipalities have expended upwards of \$4,500,000 for the construction of sanitary sewage disposal plants with a required annual maintenance of approximately \$500,000. These sewage plants have been and will be constructed to eliminate industrial and municipal pollution in the district. In view of this fact and also because the dumping of 5,000 tons of raw garbage daily would contaminate our waterways, it is unthinkable to permit the plans of the Sanitation Department of the City of New York to materialize if there is any legal manner in which to prevent it.

This Commission adopted a resolution protesting against the New York City Sanitation Department plans and following herewith, the resolution is set forth:

### RESOLUTION

WHEREAS, it has officially come to the attention of the Port Raritan District Commission that Commissioner William F. Carey of the Sanitation Department of New York City is making plans to dump 5,000 tons of raw garbage daily on the marshlands, Freshkill Creek, Greenridge, Richmond Borough, Staten Island, which represents the daily collection of garbage from the Boroughs of Manhattan, Bronx, Brooklyn and Queens, and

WHEREAS, the said Greenridge is located on the Kill von Kull, the said water being a part of the New York and New Jersey Channels between the Borough of Richmond and the State of New Jersey and is contiguous to the Arthur Kill, the Raritan Bay and Raritan River, and

WHEREAS, the daily dumping of such a great quantity of garbage will be detrimental to the fish life of said waterways enumerated and will contaminate and spoil the bathing facilities of the thickly populated areas of this entire region and will also cause an unbearable and unhealthy smell in the said areas, and

WHEREAS, the municipalities in the Raritan Bay District will have expended upwards of \$4,500,000.00 for the construction of sanitary sewage disposal

plants with a required annual maintenance of \$500,000.00 and which sewage disposal plants have been and will be constructed to eliminate industrial and municipal pollution in the said district, and

WHEREAS, the plans of Commissioner William F. Carey, if carried out, will result in great damage to the health and comfort of the residents of this entire district as well as to the lawful rights of private and public property, now therefore be it

RESOLVED, that the Port Raritan District Commission does hereby vigorously enter its protest against the plans of the officials connected therewith to dump said 5,000 tons of raw garbage daily along Freshkill Creek, Greenridge, Richmond Borough, Staten Island, or at any other location which will result in the contamination and pollution of the waterways of the Raritan Bay District, and be it further

RESOLVED, that this Commission shall coordinate its efforts with those of all other departments and agencies in the State of New Jersey which contemplate legislation or litigation to be directed toward the prevention of the said plans of the Sanitation Department of the City of New York, and be it further

RESOLVED, that copies of this resolution be forwarded to the following: His Excellency Governor A. Harry Moore; Attorney General David T. Wilentz; Dr. J. Lynn Mahaffey, Director of the State Department of Health; Dr. Charles S. Thompson, Health Officer of the City of Perth Amboy; Dr. George W. Fithian, Health Officer of the Port of Perth Amboy; Dr. Charles W. Naulty, Jr., Surgeon, United States Public Health Service; John Regan, port customs officer; Capt. Harry Delano, Supervisor of New York Harbor; State Board of Commerce and Navigation; Port of New York Authority; Sanitation Department of the City of New York; Township of Woodbridge; Borough of Carteret; Interstate Sanitation Commission (New York and New Jersey); the press of Middlesex County and Borough of Richmond.

PORT RARITAN DISTRICT COMMISSION.

C. PARKER RUNYON, Chairman.

CLIFFORD COSGROVE, Secretary.

JACOB M. KLEIN, Counsel.

November 14, 1938."

We were recently advised that while the City of New York is contemplating the reclamation of said marshlands within its territorial boundaries by filling such lands with garbage, the areas to be reclaimed have not as yet been selected nor has the method of transporting and depositing the garbage been definitely determined. We are further advised that a preliminary survey is now being made and that upon its completion it will be presented to the proper authorities for consideration. If the ultimate plan as proposed and accepted by the officials of New York will not contaminate or pollute our waterways, we will have no complaint to make. But on the other hand, if the garbage disposal operations on Staten Island will contaminate or pollute the Kill von Kull, we will vigorously oppose by litigation or otherwise, any action on the part of the City of New York in that regard.

### Raritan River

It was expected that in the year 1936, the dredging of the South Channel of the Raritan River, as far as the Titanium Pigment Co. plant,

to a depth of 25 feet and a width of 300 feet would become a reality. Due to the fact, however, that an omnibus bill was not reported out of the Committee on Rivers and Harbors, House of Representatives, during last year, the allocation of Federal funds was not made for this important project. Congressman Joseph J. Mansfield, chairman of the Committee on Rivers and Harbors, notified Jacob M. Klein, counsel for this Commission as early as February, 1936, that the Rivers and Harbors Committee would not report out such a bill. During 1937, however, this work was authorized with the allocation of funds to be made. We had every reason to believe that work on this important project would be started during 1938.

It is essential for the new members of the Legislature to know some of the details in connection with this project and a brief chronological review follows herewith.

The Titanium Pigment Co. had agreed to contribute the sum of \$66,000 as required, with the provision that the Federal funds would be authorized and the work started during 1936. For this reason, when the Commission learned that no omnibus Rivers and Harbors Bill would be reported out of Congress, every effort was made to obtain the necessary money through the Public Works Administration and the Works Progress Administration at Washington, D. C. On April 9th, 1936, Counsel Jacob M. Klein appeared before Director of Projects Division, Fred E. Schnepfe, of the Federal Emergency Administration of Public Works, at Washington, D. C. for the purpose of presenting a formal application for the appropriation of emergency funds. The matter was taken under advisement and although subsequent requests were made, the Commission was advised that the Federal Emergency Administration of Public Works under new appropriation by the Congress was limited to the development of non-Federal projects.

It will be interesting to note that the efforts of this Commission were directed toward this improvement since the Fall of 1932 when the cooperation of Hon. William H. Sutphin, Congressman from the Third Congressional District, New Jersey, was enlisted. Congressman Sutphin had a resolution adopted by the Committee on Rivers and Harbors, House of Representatives, to review reports on the Raritan River, which would not only include the south channel, but also to review the reports on the Raritan River including all of the channels up to the mouth of Washington Canal. The improvement desired was the providing of a channel 25 feet by 300 feet in width through the section of the river on review.

The Titanium Pigment Co., Inc., of New York, was interested in locating on the river, provided water of sufficient depth was made available. At a public hearing arranged between the Port Raritan District Commission and the Second District Engineer, Mr. William F. Meredith, then president of the Titanium Pigment Co., testified that if adequate depth was provided in the south channel of the Raritan River, his con-

cern would build a plant at the location, costing not less than \$3,000,000 and giving employment to 300 or 400 men. Many other persons, requested by the Port Raritan District Commission to attend the hearing, offered testimony and data in reference to this improvement.

The report of the Division Engineer did not recommend a survey to determine the cost of a deeper channel and gave the reason that there was no assurance that large industry requiring navigation facilities in excess of those now provided, would locate in the section to be affected by the improvement.

This Commission appealed from the findings to the Board of Engineers for Rivers and Harbors, War Department, Washington, D. C., and subsequently the Commission asked for a review of reports which was authorized by resolution of the Committee on Rivers and Harbors, House of Representatives, United States, which was adopted April 27th, 1934.

On June 6th, 1934, a public notice signed by Col. E. D. Ardery, Corps of Engineers, District Engineer, Second District, New York, was issued advising that a public hearing would be held in the Assembly Room, Second Floor, Army Building, 39 Whitehall Street, New York, July 10, 1934, at 10:00 A. M. "to consider the advisability of further improving the channels in Raritan River, N. J. below the mouth of Washington Canal."

This Commission arranged for the appearance of witnesses at the hearing. Counsel Jacob M. Klein presented the case for the proponents and introduced the witnesses. Col. E. D. Ardery, Corps of Engineers, District Engineer, presided and in attendance were Mr. E. B. Snell, Senior Engineer, Mr. C. D. Mayhew, Senior Engineer, and Mr. C. C. Berger, Junior Engineer.

Valuable testimony was offered by the many witnesses present in favor of the improvement, among them being Mr. William F. Meredith of the Titanium Pigment Co., who testified that his company was building a plant on the south shore of the Raritan at Sayreville, N. J., which would cost between \$3,000,000 and \$4,000,000, and that it was vitally necessary that sufficient water be provided in the Raritan River channel. He further stated that the rehandling of ores from ships to lighters in the anchorage basin off Perth Amboy would amount to 25 cents per ton in excess of the cost of bringing the fully laden vessels to the plant and that on his estimate of 175,000 tons annually, this item would amount to an additional cost of \$43,750 to his company.

On November 6, 1934, Col. J. A. Woodruff, Corps of Engineers, Division Engineers, North Atlantic Division, issued a notice that the review of reports authorized by the resolution of the Committee on Rivers and Harbors, House of Representatives, had been made and was unfavorable to the improvement. The adverse conclusion was based on the apparent lack of necessity of channels of greater dimensions.

From these findings, this Commission appealed to the Board of Engineers for Rivers and Harbors, War Department, Washington, D. C., and after the usual procedure the matter was sent back to the District Engineer for a rehearing which was held on April 29th, 1935, before Col. Ardery, District Engineer, and his staff, in the Army Building, 39 Whitehall Street, New York City.

This Commission again arranged for the appearance of witnesses, and Counsel Jacob M. Klein presented the case for the proponents and introduced the witnesses. The need for this improvement was again shown, this time with more successful results because the improvement sought in the Raritan River was recommended as far as the Titanium Pigment Co. plant.

A condition was provided, however, that local interests must furnish spoil disposal areas as required for the new work and subsequent maintenance, and contribute \$66,000 toward the initial cost.

In a letter sent by Major General E. M. Markham, Chief of Engineers, to Honorable J. J. Mansfield, chairman, Committee on Rivers and Harbors, House of Representatives, Washington, D. C., October 14, 1935, he concurred in the views and recommendations of the Board of Engineers for Rivers and Harbors. The following, an excerpt of General Markham's letter sets forth the recommendation in which he concurs:

"The Board recommends modification of the existing project for Raritan River, New Jersey, to provide a channel 300 feet wide and 25 feet deep at mean low water from the New York and Long Branch Railroad Bridge to the junction of Main and South Channels; thence up South Channel to the upper limit of the Titanium Pigment Company property, at an estimated cost of \$267,000 for new work, and \$15,000 for annual maintenance in addition to that already required; provided that local interests furnish spoil disposal areas as required for new work and subsequent maintenance and contribute \$66,000 toward the first cost."

Another important development which has taken place was the completion of dredging for the straightening and realigning of the lower reach of the South Channel as authorized by Rivers and Harbors Act approved June 30, 1935. This project was completed on October 29th, 1935, and the channel is now being used. Col. Ardery, Second District Engineer, received the necessary allotment to proceed with the work and requested authorization to require two feet over depth and allow two feet additional over depth in constructing the channel. The controlling depth in this part of the channel was about 13.5 feet at mean low water. It has recently come to the attention of this Commission that considerable shoaling has taken place in the channel and we have had conferences with the New York District Engineers regarding the matter of further dredging at the earliest opportunity. We have been assured that the work would be expedited since the Titanium Pigment Co. requires deeper water in the channel for unrestricted shipping operations.

This development was authorized some time ago with the provision that one or more suitable terminals be provided on the South Channel

before the operation could be undertaken. The construction of the Titanium Pigment Co. plant on the South Channel provided such a terminal. The Port Raritan District Commission arranged with property owners on the Raritan River to supply areas for dredged material and submitted the agreements to the Second District Engineer.

This improvement is of great benefit to shipping and eliminates difficulties encountered by crafts of all kind which previously had to use the old cut-over channel in spite of the many difficulties involved. Transportation companies handling heavy tonnage of sand and clay out of the Sayreville section experienced much trouble in navigating the old cut-over due to the danger and annoyance of insufficient water. Testimony was given at one of the hearings that barges carrying this material grounded frequently, and grounded so hard that the tug was forced to leave the barge and return for it at the next high water. It was further testified that if a barge grounds in a certain position, its seams may open and sink. Foreign vessels carrying ore had to undergo the risk of sucking sand and mud into their condensers and damaging their engines, which actually happened on several occasions.

The locating of the Titanium Pigment plant at Sayreville is an industrial achievement for the Raritan Bay District and may be considered substantial justification for the construction of the quarantine anchorage basin and cut-off channel which serve it. Reports persist that several nationally-known industries are seeking land on the Raritan River. It is contemplated that in 1939 definite information will be available so that the identity of these plants may be disclosed.

In view of the fact that this major project had the final recommendations of the Chief of Engineers, and had been passed by the Committee on Rivers and Harbors, House of Representatives, and the bill signed by the President, we believed that the necessary funds would be provided and the work started in 1938. Federal funds for this project were in fact authorized and available. Due to the delay by industrial interests in making the necessary contribution to the Federal Government to help defray the cost, the progress has been temporarily retarded. At the request of this Commission, Congressman William H. Sutphin will introduce a resolution in the new Congress for a review of reports in order that the Federal Government may eventually proceed with this improvement at its own entire expense.

This Commission feels that the development of the Raritan River as outlined will continue to stimulate industrial expansion from the head of navigation at New Brunswick to the Raritan Bay and all other lands and waters of the Raritan River, South River, Washington Canal and the Arthur Kill contiguous thereto. Increased ratables created by this kind of industrial progress would not only be beneficial to communities located in the District but would also redound to the progress of a great and growing State.

## **Anchorage Basin**

### **Raritan Bay, Near Perth Amboy**

The completed anchorage basin was paid for entirely by funds allocated by the Public Works Administration, Washington, D. C.

The importance of this improvement may be judged from the fact that it was favorably reported as far back as 1930. The basin not only represents a great saving of time and expense to the shipping that passes through the Raritan Bay and up to the Arthur Kill and Kill von Kull, but is also important as a public health measure and from the standpoint of pilotage and safety.

In a letter dated January 30, 1930, addressed to the Committee on Rivers and Harbors, Major General Lytle Brown, then Chief of Engineers, said "The Board states that the present method of quarantine inspection is unsatisfactory and will become more so as the number of deep-draft vessels using the New York and New Jersey Channels increases."

Prior to the construction of the anchorage basin, a ship desiring to enter by way of Perth Amboy, arriving off Sandy Hook in the evening, had to anchor and await until the next day and a favorable tide in addition, before proceeding to Perth Amboy and the Kills. This meant a loss of several hours' time and perhaps an entire day. With the anchorage now completed at Perth Amboy and the approach channel well marked for night navigation, the ship proceeds thereto, ready to pass quarantine in the morning and if no cause for delay is found, proceeds immediately to its destination.

When a ship came in from the Atlantic, proceeded up this narrow, tortuous channel and arrived at a point off Perth Amboy, if there was another ship already tied up at its destination, since there was no anchorage available, it either had to go up stream, turn around and go back, which involved a great deal of navigation difficulty because if the ship was long, it could easily get stuck in the 400-foot channel, or on the other hand, if it could not turn around, it had to continue on its way and and tie up at any dock until it could get to the dock to which it was destined.

That was a very dangerous proceeding to ship, cargo and crew. Another hazardous feature of this procedure lay in the fact that if disease or pestilence was present on these ships, contagion could find its way into the country through escaping sailors at the docks. Without the proper quarantine facilities now afforded by the anchorage basin at times, these ships had to proceed to the docks because there was no place for them to anchor, even if disease was prevalent.

A hearing was arranged by this Commission to be held before the Committee on Rivers and Harbors, House of Representatives, Washington, D. C., Congressman Joseph J. Mansfield, Texas, chairman, presiding. Much favorable testimony was given to the Committee, among

those addressing the body being Walter P. Hedden, Chief, Bureau of Commerce, Port of New York Authority; Jacob M. Klein, counsel for Port Raritan District Commission; Harry S. Medinets, counsel for the City of Perth Amboy; the late Capt. Waugh, representing the New York, New Jersey and Sandy Hook Pilots' Association; Major-General Lytle Brown, then Chief of Engineers, United States Army, and C. Parker Runyon, chairman of the Port Raritan District Commission.

Since the above hearing was held before the Committee on Rivers and Harbors in Washington, this Commission vigorously applied itself through all official boards toward the attainment of full Federal aid. Many conferences were held in Washington with representatives of the Public Works Administration and War Department, United States Senators from the State of New Jersey and the Congressmen from the Third and Fifth Congressional Districts in this State.

The development of the port received tremendous impetus through the construction of the basin. The improved area previously available only to shallow draft craft and most of it of the pleasure boat type, is now the safe harbor for ocean-going vessels. A new maritime picture has been created in the district and the present use of the basin by steamships from world ports, portends a rapid industrial expansion in this thickly populated area.

At times the anchorage is crowded to its full capacity and with the increased volume of shipping in local waters it becomes necessary to have the Federal Government extend the size of the anchorage. Within a short time it is hoped that concrete plans will be formulated for such a purpose.

### **Cut-Off Channel Raritan River To Arthur Kill**

Like the quarantine anchorage basin, the all-important cut-off channel connecting the Raritan River channel with the southerly end of the Arthur Kill, or Staten Island Sound, has been completed and is now being maintained by the Government. This Commission and shippers in general have been working for this improvement for a long time. It was desired because of the manner in which it will aid shipping between Staten Island Sound and the Raritan River.

Previously, vessels proceeding from the Raritan River to the Staten Island Sound, followed the Raritan Bay channel and circled about the Great Bed Light. This meant a great loss of time and extra expense to the shippers. When the weather was stormy, it frequently happened that it was unsafe for vessels to circle the light house as a result of which, shipping activities were stopped or curtailed until the storm conditions abated. The new channel not only reduces the running time between the sound and the river, but makes it possible for shipping to continue regardless of weather conditions.

The new channel cuts off several miles in the trip from Raritan Bay to the waterway around Staten Island and furnishes a short cut from Perth Amboy and South Amboy to New York, obviating the necessity of following the circuitous route down the bay.

Hearings which were held before the Committee on Rivers and Harbors, House of Representatives, Washington, D. C., also included the cut-off channel project. Subsequent hearings were held in this matter and conferences arranged in Washington and New York with representatives of the Public Works Administration, War Department and other official agencies which resulted in the allocation of funds by the Public Works Administration for the construction of this improvement under the supervision of the Army Engineers.

The need for this improvement must have been great, judging from its constant use, both day and night. With increased industrial activities in the Raritan River between Perth Amboy and New Brunswick, including the Raritan Arsenal, there can be no question that this new channel was not only necessary to navigation requirements, but will also constitute an important artery in this progressive industrial section.

### **Smith's Creek Sewaren, N. J.**

For the past number of years the Port Raritan District Commission has been endeavoring to enlist the cooperation of the Federal Government in the improvement of Smith's Creek, Woodbridge Township, Middlesex County. Hearings were held on a review of reports but the report of the District Engineer was unfavorable because of the absence of commercial navigation on this waterway and on the further ground that the creek was used exclusively by pleasure craft.

Improvement desired by parties interested are:

1. A channel of 45 feet bottom width dredged to a depth of six feet at a mean low water extending from the mouth of the creek to a point about 1,000 feet up stream.
2. A jetty or bulkhead to be constructed on the left side of the mouth parallel to the direction of the flow of the creek extending into Arthur Kill for a distance of about 400 feet channelward of mean high water line.

A channel of the above dimensions would be a maximum that could be obtained without causing undue sloughing of the banks of the creek, and that only by the erection of such a structure would it be possible to maintain a channel at the mouth without frequent dredging.

A recent report showed that the creek was being used as a mooring and basin for about 100 boats, names and numbers of which could be checked for certification at local Customs House. These represent so-called cruiser type ranging from 28 to 50 feet and powered from 20 h.p.

to 200 h.p. In addition there were about 25 outboard motor boats, powered with 10 h.p. to 40 h.p. each. The property on the west bank of the creek below the boat club, the side on which all boats are moored, allowing the fairway on the easterly bank, is divided into 25 and 50 foot lots and having an individual ownership of between 30 and 40 people.

Less than 10% of the boat owners are local residents, the remainder being from Westfield, Rahway, Plainfield, Hillside, Newark, Elizabeth, the Oranges, and other communities in New Jersey. The greatest number of boats range between 28 feet and 45 feet, the depth that they carry being a maximum of five feet and an average of three feet, six inches.

The value of the boats varies in the cheaper class of 28-foot boats from \$800.00 minimum to \$3,500.00 maximum. The 45-foot boats range from \$2,000.00 to \$12,000.00 maximum and a fair average would probably place all of this type boat at about \$2,800.00 or a total valuation of \$187,500.00. The out-boards average about \$300.00 each (motor and boat) or \$7,500.00. Total value of all boats \$195,000.00.

Gasoline consumption. An actual account of three of the boats powered 40 h.p., 40 h.p. and 150 h.p. shows 1,500 gallons, 2,000 gallons and 4,000 gallons respectively for a season. The smaller boats used from 500 to 1,000 gallons. A fair average for all boats would be probably not over 1,000 gallons. The outboard motors use as much gasoline as the small cruisers. 100 boats by 1,000 gallons makes a total of 100,000 gallons.

New Jersey State tax at 3 cents a gallon amounts to \$3,000.00 and Federal tax at 1 cent a gallon amounts to \$1,000.00.

If the entrance is improved more boats would be moored on Smith's Creek and the gasoline consumption would be thereby increased.

Smith's Creek is a natural anchorage and safer than any other in this part of New Jersey and with the desired improvement constructed to protect the shoaling entrance, the same is a potential anchorage for between 200 and 250 boats.

The principal shoaling occurs at the entrance and for a distance of about 300 feet. At the present time, less than two feet at mean low water and at neap tides only about one foot of water for a width of 20 feet. The general testimony indicated that the entrance to the creek should be sheetpiled for a suitable distance to avoid the silt dropping out at this point and making this part more or less self-cleaning.

The project would not need the total appropriation in one year. But carried out on a two or three-year plan, such as (1st) dredging the entrance (2nd) sheet-piling and (3rd) general clean-up of waterway; a rough estimate of all of this work places the cost at about \$9,000.00.

Three marine railways serve this creek, the total income being approximately \$5,000.00. This includes winter storage and general repairs and does not include commissions on sale of new or old boats and en-

gines. Three incorporated boat clubs have frontage on Smith's Creek, having an enrollment of over 200 members.

With the increase in the use of motor boats for recreational purposes, the Federal Government is recognizing more than ever, the need for Federal improvement of harbors and basins which are used almost exclusively by the owners of pleasure craft. In fact, the Army Engineers because of this trend, are liberalizing their views in projects of this character wherein the demand is so great for public improvement by a large number of boat owners, that the requirements take on a commercial aspect.

The need for improvement at Smith's Creek has become so urgent because of the number of people involved and the amount of money invested that instead of pursuing the matter on further appeal to the Board of Engineers for Rivers and Harbors, this Commission sought and obtained the cooperation of the State Board of Commerce and Navigation for the improvement of this waterway. After a series of hearings and conferences, the Board of Commerce and Navigation included Smith's Creek in its program of New Jersey waterway projects. Under date of December 2, 1938, the Board advertised for proposals. Under public notice 299, the New York District Engineer indicated that plans showing the proposed work were on file in his office, further stating that the said plans propose dredging a channel approximately 1,027 feet long and 50 feet bottom width with side slopes of one vertical to three horizontal to a maximum depth of seven feet below mean low water.

The demand for this improvement has become so acute that it is hoped the project will be completed in 1939 to the advantage of a great number of citizens from different parts of the State of New Jersey who moor their boats on Smith's Creek.

### South River Basin

During the current year, yachting in the South River at or near South River, New Jersey, has made rapid strides, the increased number of motor boats and growing gasoline consumption having reached a peak during the past summer. Proponents for improvement claim that the South River boat basin is one of the best in New Jersey because it is protected from storms and also because of the fact that they are not molested by freshets or strong tides. The present tide range is five feet four inches, which is insufficient to give proper ingress and egress to motor boats using the waterway. The proponents desire six feet at mean low water with a channel of 75 feet bottom width.

Mayor John F. Fitzpatrick of South River, and Commissioner Marcus S. Wright of this Commission with other officials of the Borough of South River and the Port Raritan District Commission presented this matter to the Board of Commerce and Navigation for improvement. On November 15th last, Counsel Klein was advised by Frank D. Holmes

Jr., Secretary and Assistant Director of the State Board of Commerce and Navigation that this project was included in the contemplated program for next year. Under date of December 2, 1938, the Board advertised for proposals. Under public notice No. 296, the New York District Engineer indicated that plans showing the proposed work were on file in his office, further stating that the said plans propose dredging a channel approximately 2,585 feet long and 100 feet bottom width with side slopes of one vertical to three horizontal to a maximum depth of six feet below mean low water.

The demand for this improvement is well merited and we trust that the work will be done during the early part of the coming year.

### **Perth Amboy Basin**

The construction of a basin for small boats at the present writing is about 95% completed. It is hoped that this project will be finished by summer of 1939. This improvement for small boats was advocated by this Commission and other organizations during the summer of 1935 in response to the demands of local and State-wide boating interests. Many boat owners who live in Newark, Elizabeth, Springfield, Westfield, Plainfield, Bound Brook, Metuchen and other communities in the State, commute between Raritan Bay and their respective homes from early Spring until late Fall. In the past few years the increase in the number of sailing yachts, motor yachts and fishing boats and other small pleasure craft has been tremendous, making it more essential than ever before that a safe harbor or basin be provided for these craft.

With the development of the quarantine anchorage basin and the cut-off channel off Perth Amboy, shoal areas were dredged to deeper dimensions and these areas which formerly provided moorings for smaller craft are no longer available for that purpose. Steamers, tugs, barges and other large craft using these improved waterways must have free and unmolested passage in the channels and hundreds of small boats have had to devise makeshift moorings outside the new channel lines. During storms and severe winds from the east, southeast and northeast these small vessels are in danger of destruction.

The construction of this small boat basin with the capacity of over 100 boats has been made more possible on account of the reclaimed material which has been made available for construction work of this character. The reconditioned material gathered in the reclamation project is being used in the construction of the boat basin. The site of the basin is located on city-owned property contiguous to the park at the foot of Market Street, Perth Amboy, N. J.

The city government of Perth Amboy, City Engineer Louis P. Booz, who has devoted a great deal of his time to the construction of this basin, the officials of the Works Progress Administration, W. Franklin Buchanan, engineer, and other members of this Commission

worked out a plan for the construction of the basin and an application was made by this Commission for Federal funds. The total cost of this improvement will be approximately \$150,000, about \$115,000 of which will be contributed by the Federal Government, the balance to be absorbed by local interests.

Operations were started on this project March 18, 1936, same being known as Works Progress Administration project 4-501 and is entitled "Construction of a boat basin in Raritan Bay as part of the development of Bay View Park in Perth Amboy, Middlesex County".

When completed the boat basin will contain mooring berths for approximately 100 boats from 20 to 45 feet in length. The basin will have a depth of six feet at low water and will consist of three separate basins and four docks at which boats of any size may land. Marine railway equipment will be available for docking boats and the City of Perth Amboy will build a comfort station, in addition to landscaping the premises and making the same attractive as well as useful.

### **New York and New Jersey Channels**

#### **Arthur Kill and Kill von Kull**

This Commission has been interested in and worked for the improvement of the New York and New Jersey Channels of which the waterways in the Port Raritan District comprise an important part. Previous reports to the Legislature have contained the important details of our participation in these improvements. This Commission is more particularly interested in the widening of the channel in the Kill von Kull to 1,000 feet; the widening of the present 30 foot channel in the Arthur Kill to at least 600 feet, or the full distance between the established pierhead lines where such distance is less than 600 feet; and the widening of the approach channel through Raritan Bay to 800 feet to permit passage of large oil tankers and other craft which navigate into the Arthur Kill from Raritan Bay, with a depth of 35 feet to be increased from 30 feet.

After a series of hearings before the Board of Army Engineers with subsequent appeals made from unfavorable reports, the improvement to these waterways was followed up by all the parties in interest including this Commission.

In March, 1935, improvements to the New York and New Jersey channels leading to New York Harbor at an estimated cost of \$27,000,000 for new works was recommended to Congress by the late George H. Dern, Secretary of War.

The late Secretary Dern transmitted to the House the report of Major General E. M. Markham, Chief of Engineers, in which General Markham, concurring the views of the Board of Engineers for Rivers and Harbors, that the volume and character of commerce carried in the channels, and the savings in transportation costs to be anticipated merited their improvement, recommended:

That the existing project for New York and New Jersey Channels be modified to provide for a depth of 37 feet at mean low water in rock, and 35 feet in soft material throughout, except in Arthur Kill between a point 1,000 feet north off the mouth of Smith's Creek and a point 1,000 feet south of Buckwheat Island, where the depth will be 30 feet; to be 800 feet wide through Jedney and Bayside Channels, thence 600 feet wide across lower New York Bay and Raritan Bay and in Arthur Kill to a point 1,000 feet south of Buckwheat Island, widened to 800 feet in the vicinity of Seguine Point and Wards Point, thence 500 to 600 feet wide and passing north of Shooters Island to the junction with the channel in Newark Bay; and thence 800 feet wide to upper New York Bay; with two anchorages 38 feet deep to accommodate five vessels, each, one in the vicinity of Sandy Hook and one south of Perth Amboy; all with suitable easing at the bends and junctions with other channels.

Major General Markham estimated that this work would cost \$27,000,000 and that \$195,000 annually would be needed for maintenance of the project.

The War Department's recommendations were made subject to the following conditions:

That where the project channel encroached upon upland property and extends shoreward of harbor lines, the completion of the encroaching project shall be deferred until the necessary rights of way for channel purposes shall have been granted free of cost to the United States.

That local interests provide areas to land adjacent to the waterway free of cost to the United States, for the disposal of dredge materials, except wherein, in the judgment of the Chief of Engineers, no suitable disposal areas exist.

In making public the report the War Department explained that the waterways serve expensive industrial developments including those for the storage, refining and distribution of petroleum products, railroad, coal, and other industrial and commercial plants. Commerce in the channels in 1933 amounted to 40,196,000 tons and during the past 10 years has averaged 45,000,000 tons per annum.

Making the improvements proposed, the War Department's statement said, will afford substantial benefits to industries engaged in foreign and domestic commerce of a highly competitive nature and of far-reaching proportions, and will alleviate the congestion which now frequently occurs in the channels and facilitate expeditious movement of vessels.

In 1938 progress under the 1935 project has been made at a normal rate and it is estimated that 30% of this major improvement has been effectuated under contracts let by the War Department and under the supervision of the District Engineer, New York District, and his staff. Some of the largest industries of their kind in the world are located on the banks of the New York and New Jersey Channels and as available territory is being bought up by manufacturers on a large scale for in-

dustrial construction purposes, the spread for new fields of manufacturing activity will continue to press toward the Raritan Bay District. The deeper waterways which we have already been able to provide and those which we expect to provide in the future will form the magnet to draw them to the waterfronts of our district. Ocean-going vessels need ocean-going facilities. These we can now supply and it is with a feeling of confidence we report that still deeper channels are on the way.

### Federal Expenditures

Concerning the Raritan Bay District and contiguous waterways, the following are some of the Government figures for work performed or proposed during the fiscal years 1938, 1939 and 1940.

New York and New Jersey Channels expended and proposed in 1938 \$2,617,000. The proposed expenditure for 1939 is \$3,900,000; proposed for 1940, \$5,118,000; Raritan River to Arthur Kill cut-off channel 1938 and 1939, \$139,000; Raritan River expended and proposed for 1938, \$16,000; Woodbridge Creek proposed for 1940, \$15,000; Raritan River proposed for 1940, \$312,000; Washington Canal and South River proposed for 1940, \$10,000. Total proposed for 1940, \$5,455,000.

In addition, according to figures supplied by the office of the District Engineer, New York District, there was expended to June 30th, 1938, the grand total of \$24,158,000 in the following manner: New York and New Jersey Channels, \$21,068,000; Raritan River to Arthur Kill cut-off channel, \$949,000; Woodbridge Creek, \$196,000; Raritan River, \$1,604,000; Washington Canal and South River, \$341,000.

The Port Raritan District and the State of New Jersey derive economic benefits from these expenditures which are so advantageous that it is impossible to calculate the same on a dollars and cents basis. The district now boasts of waterways with ever-deepening channels, improved railroad facilities and modern highways. These arteries of transportation afford to all industries located in this district prompt and efficient handling of raw materials used by them in their manufacturing processes and gives to them the means of conducting the operation of their business on a competitive basis in relationship to concerns not so advantageously located. Complete development of waterway transportation; coordination of all agencies which insure this kind of transportation and a plan for adequate warehousing and terminal facilities are the major functions of this Commission. We are continuously seeking Federal funds for deeper and wider channels, realizing that the deeper draft vessels which can come into our port, the more our industries will expand and the greater attractions we will have to offer for big industry to locate new plants in this section of New Jersey.

Our present program for future waterway development through the expenditure of Federal funds is being recognized by new industry. The

field representatives of such concerns contact us for information as to the depth of waterway we now have and what we are proposing for the future. Surveys are being made by industrial agents for locations wherein necessary transportation facilities will or may be provided to suit their needs. The location of new plants in this area proves the value of the results already accomplished and the district, State and nation are being benefited to a degree that is incalculable.

During the early part of the year 1938, there was a general slowing up in industrial activities but for the latter part of the year, there has been a decided change for the better. A recent survey indicates an upturn in economic conditions in this district and if signs are dependable, the upper and lower Raritan, South River and Washington Canal, Raritan Bay, Woodbridge Creek, Woodbridge River, the Arthur Kill and Kill von Kull, will show a marked improvement during 1939.

The municipalities of New Brunswick, Perth Amboy, Woodbridge, South Amboy, Sayreville and Woodbridge Township and environs, are directly on the waterfront and are, therefore, in a position to progress with the improved navigation facilities provided in the District.

#### **Acknowledgments**

Former Division Engineer, Col. E. L. Daley who became Brigadier-General, was succeeded by Col. Francis B. Wilby for the Northern Division. Lt. Col. D. McCoach, Jr., former District Engineer with offices at 39 Whitehall Street, New York City, who was transferred to Washington, was succeeded by Col. Charles L. Hall. Major H. G. Fairbanks was transferred to another District. Major J. F. C. Hyde became attached to the office of the District Engineer as did Capt. C. B. Snow. These officers have given us the full benefit of their cooperation. Mr. E. B. Snell, Mr. C. D. Mayhew and Mr. J. M. Buckley of the engineers staff with others, continue as civilian members of that highly-efficient organization. Mr. C. C. Berger has been transferred to Washington, D. C. Again, we gratefully acknowledge the cooperation, advice and unselfish efforts of the entire personnel of the offices of the Division Engineer and District Engineer. By their courteous attention to our problems and constructive advice which they are willing to give on all occasions, they have proven to us time and again, that they are interested in the development of waterways in this and other districts and will do their utmost to aid us in our plans.

The Commission wishes to express appreciation for the aid it has received from the Port of New York Authority, State Board of Commerce and Navigation, New Jersey State Highway Commission and many other officers in the National and State Governments, particularly Governor A. Harry Moore, ex-Governor Harold G. Hoffman, U. S. Senator W. William Smathers and Hon. William H. Sutphin and Hon.

Charles A. Eaton, Congressmen of the Third and Fifth Congressional Districts, respectively.

Respectfully submitted,

PORT RARITAN DISTRICT COMMISSION,

C. PARKER RUNYON, Chairman.

JACOB M. KLEIN, Counsel.

## STATUTES

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CHAPTER 337  
(P. L. 1926 Pg. 767)  
*Passed April 1, 1926*

An Act to create the Port Raritan District and to provide for the appointment of the Port Raritan District Commission and the vesting in the Commission of appropriate powers and making an appropriation for the expenses of the commission.

CHAPTER 338  
(P. L. 1926 Pg. 772)  
*Passed April 1, 1926*

An Act authorizing the governing body of any county, borough, city, township or other municipality in this State to raise, appropriate, set aside and devote money or property to the use of any port, harbor, bridge or river commission now or hereafter created by the Legislature of this State and giving to any such local governing body property to the use of any port, harbor or river commission now or hereafter created by the Legislature of this State and giving to any such local governing body the power to prescribe the terms and conditions upon which any such money or property shall be held and used.

CHAPTER 31  
(P. L. 1927 Pg. 70)  
*Approved March 7, 1927*

An Act authorizing the Port Raritan District Commission to straighten South River, in the county of Middlesex, and making an appropriation therefor.

CHAPTER 22  
(P. L. 1928 Pg. 36)  
*Approved March 6, 1928*

An Act authorizing the Port Raritan District Commission to investigate the pollution of the Raritan River and to prepare a plan for the purification of the Raritan River and making an appropriation therefor.

Approved January 18, 1939

HADDON IVINS,

State Librarian

