

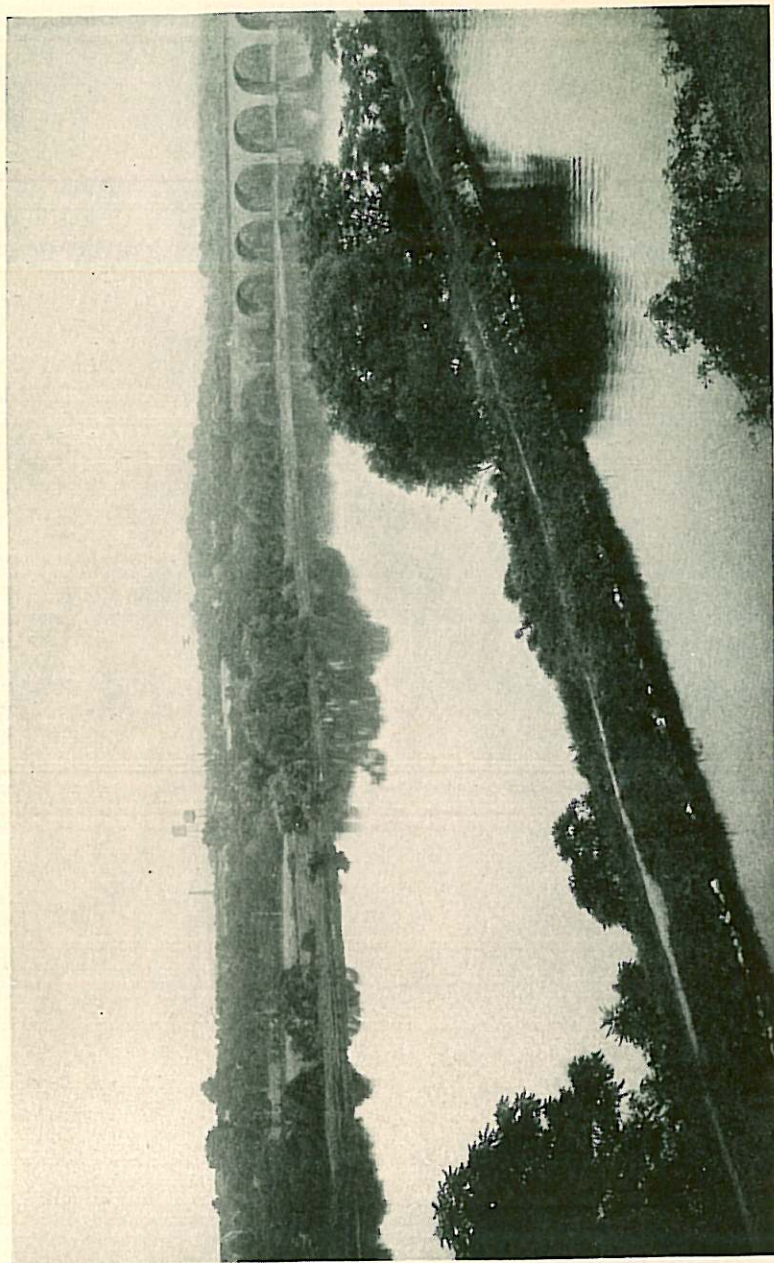
SAVE  
THE RARITAN

*"Queen of Rivers"*



SAVE THE RARITAN





"Perhaps repose is the secret of the river's attraction"

# SAVE THE RARITAN

By RICHARD J. WALSH



"QUEEN OF RIVERS"

*"All thy wat'ry face  
Reflected with a purer grace  
Thy many turnings through the trees,  
Thy bitter journey to the seas,  
Thou Queen of Rivers—Raritan!"*

From a poem written by JOHN DAVIS  
and published in 1806, in the  
*London Review*



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• 1928 •



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## SAVE THE RARITAN

By RICHARD J. WALSH



**L**UCKY the folk who dwell beside a river!  
"To see the glint of sunlight on the clear  
water, to scent its fresh odors, to make  
camp on its clean banks, to plunge and  
swim in its depths, to skim over its  
sparkling ripples in boat or canoe, to drop a line or  
draw a net and capture its shiny, savory fish, to drink  
its pure draughts—these are the delights of those  
whose lives are spent along a gentle stream."

Does anyone recognize in these lines the delights of  
living by the Raritan? Or do they seem to ring with  
irony?

A hundred and twenty-two years ago a poet in far-  
away London exclaimed, "Thou Queen of Rivers,  
Raritan!" Were that poet living today he might be  
forced to substitute the shameful phrase that is now  
running along the lips of the people in this valley,  
and to write, "Thou Open Sewer, Raritan!"

Many have loved this river and this valley. One in  
particular—John C. Van Dyke—has written of it often  
and eloquently.

"How calmly beautiful," he has said, "seem the  
slow-slipping river, the glittering flags and bending



grasses, the sloping uplands with their dark groves of trees and light checks of farms! How simple, peaceful, and restful, this river basin with its golden sunlight, its warm blue air, its still waters, and its long lines of beach and shore flowing serenely seaward!"

*"Glorification of the Commonplace"*

In another volume he has written: "Off in the northwest there is a range of blue hills where the stream takes its head. It comes to life, runs its course, and passes out to the sea before a hundred miles are counted. . . . At times it cuts through bluffs and hills, then flows past low-lying meadows, and then again beneath bordering fringes of willows, elms, maples and sycamores. . . . Spots of wonderful charm are the river's meadows. You walk there on warm summer afternoons and lose yourself in nature's glorification of the commonplace. . . . Very beautiful are the marshes to those who have lived beside them and, through many years, have known the charm of their repose.

"Perhaps repose is the secret of the River's attraction, also. . . . There was a time, and not three hundred years ago, when it was unique and was thought a wild, wild stream. No one had been to its head; no one knew how far it traveled. It was then a deeper stream with waters undimmed by the surface drainage from farms. There were no farms. The small open spaces on the meadows were planted with Indian maize; but all the rest of the land was forest. Huge pines grew along the shale cliffs; oak and chestnut and hickory grew on the uplands. There were no towns or bridges or rail-

ways or wagon roads. Indian trails ran across the land from river to river, Indian teepees were pitched under the great trees in the meadows, and Indian canoes glanced along the surface of the River. The white man had not yet come, the land was unflayed, the forest and the stream were in their pristine beauty. And then——"

*"The Pleasantest Country"*

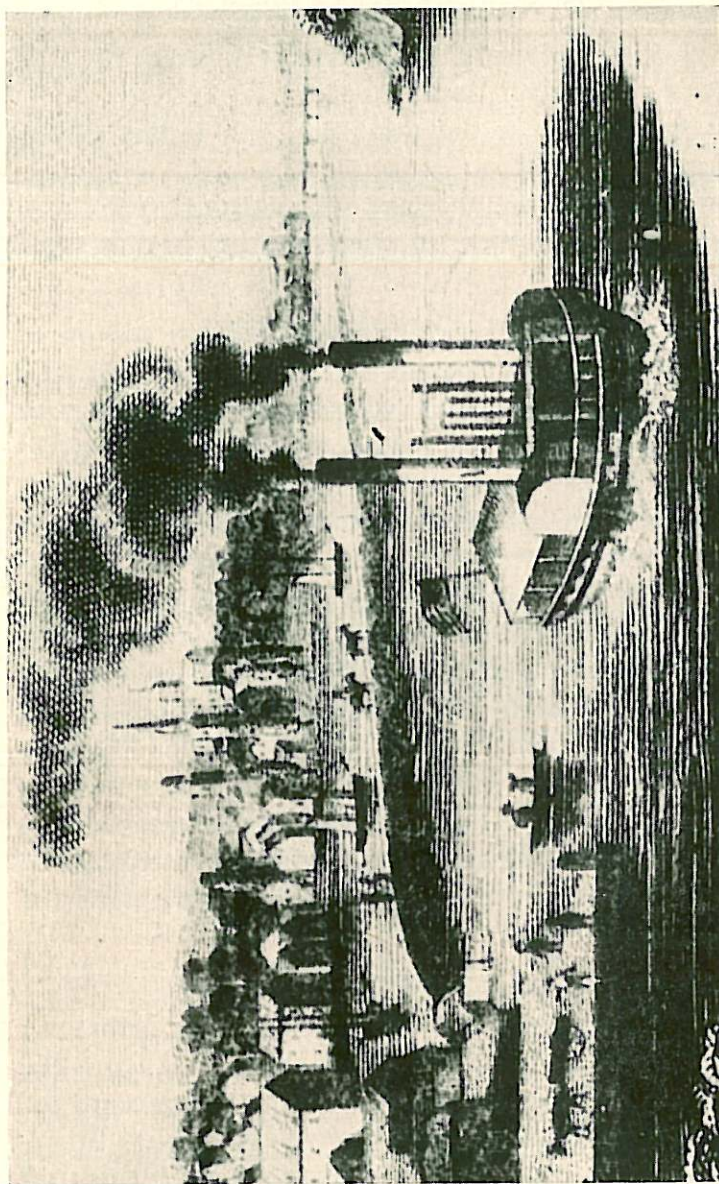
One of those early observant Hollanders, Cornelius van Tienhoven, wrote a report in the year 1650, describing the American colonies, in which he said:

"The district inhabited by a nation called Raritangs (Raritans) is situated on a fresh water river that flows through the center of a lowland which the Indians cultivated. The vacant territory lies between two high mountains, far distant the one from the other. This is the handsomest and pleasantest country that man can behold. It furnished the Indians with abundance of maize, beans, pumpkins, and other fruits. . . . Through the valley pass large numbers of all sorts of tribes, on the way north or east. This land is, therefore, not only adapted for raising grain and rearing all description of cattle, but also very convenient for trade with the Indians."

*The Indian Path*

The Indians gave the river its name. Long before the white settlers arrived they had beaten a trail across the State, from the falls of the Delaware at Trenton to the first fording place, near the present city of New Brunswick, and thence on toward New York. Over this trail





*The earliest picture of New Brunswick, taken from an old bank note. The date is about 1832*

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the natives carried their furs. Named in old deeds as the Indian Path, it later became the dividing line between Somerset and Middlesex Counties.

The Indian burying ground at the mouth of Mile-Run Brook was described in an ancient survey as the beginning point of the line between Iman and Bainbridge. There was another burial ground on the south bank, below Somerville.

Scars left by British bayonets still mark the door-jambs of houses that look down upon the river.

Simcoe's raiders burned the old college at New Brunswick.

General Lafayette crossed the river at New Brunswick in 1825, in a grand barouche drawn by six gray horses, on his way to review the troops mustered at Trenton in honor of his return to America.

An historic river, indeed. Is it cherished today with a fitting pride?

### *Thoroughfare of a Nation*

This narrow strip of land that lies between the Bound Brook Mountain and the sea is the thoroughfare of a nation.

It has always been famous as the highway of trade and travel. In 1744 stage coaches ran across it from Philadelphia to New York. In 1748 the Raritan Landing was celebrated as "a market for the most plentiful wheat country for its bigness in America."

"Large wagons from Pennsylvania and from Hunterdon, some of them drawn by six horses, heavily laden with flour, flax-seed, flax and other kinds of



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produce, passed over the Amwell road to New Brunswick. . . . At a certain time the keeper of the toll gate at Middlebrook kept an account, and stated that 500 vehicles of various kinds had passed through the gate in one day. . . on their way to the Landing and New Brunswick markets. . . .

"Before the era of Railroads, travelling between New York and Philadelphia increased to such an extent that 32 stages were frequently run each way per day to carry passengers. . . . Tradition states that at one time 30 stages halted at Ayres' Tavern on the Turnpike five miles above New Brunswick, and at Baker's, opposite to it on the old road, 20 stages at the same time. About this same period an express line was in operation, consisting of single horses, by which special messages were conveyed between New York and Washington on horseback. Single horses were stationed at short distances along the route between the two cities, ready saddled and bridled as the rider came in sight. Arriving at the Station the rider would dismount, immediately change the bag containing the papers to the fresh horse, remount, and in less than a minute be on full gallop on his way to the next Station."\*

Today this same narrow strip of land between the hills and the ocean has become the most important traffic artery in the world. Over it must pass all the transportation between the world's largest city and the South, and a great part of the transportation to and from the West. Railways, airways, the Lincoln

\*From an article by RALPH VOORHEES, published in "Our Home" in 1873.

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Highway and other great motor roads, must cross the Raritan.

A newspaper article of March 1, 1785, stated: "It is remarkable for being a healthy spot."

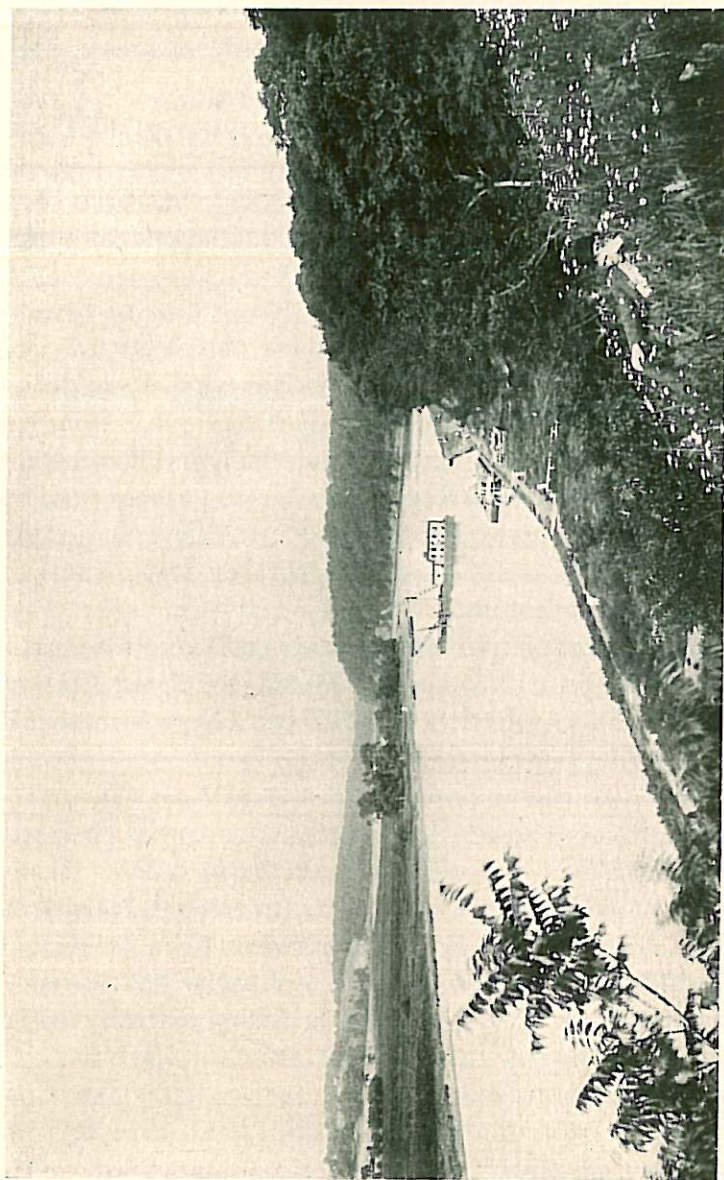
Shall those to whose care this place has been committed, maintain an open sewer on the thoroughfare of the nation?

Residents along the Raritan River do not always realize its importance. Except for the Delaware, the Raritan system is the largest in New Jersey. It drains an area of 1,105 square miles. It is navigable from the mouth to New Brunswick, and the canal connects it with the Delaware River. The United States government has spent at least \$100,000 in surveying it for purposes of navigation, and further large sums in dredging the channel.

Fifteen municipalities have an economic interest in the lower part of the river. These are: Perth Amboy, South Amboy, Parlin, South River, New Brunswick, Sayreville, Highland Park, Bound Brook, South Bound Brook, Middlesex Borough, Lincoln, Manville, Somerville, Raritan and Millstone. Its commercial possibilities have been demonstrated by the Middlesex Transportation Company, which has for several years operated a line of freight boats between New Brunswick and New York. New Brunswick shippers have twenty-four hour service to New York Harbor, thereby avoiding the delays of rail transportation through the congested metropolitan district.

Mr. Russell E. Watson states: "The Port Raritan District Commission is energetically working for the





*The Raritan, from an old photograph*

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development of the entire Port Raritan District. Adequate appropriations for its work have been made by the State of New Jersey, and its professional personnel is capable and efficient. The enlightened and progressive policy adopted by the Commissioners of the City of New Brunswick in authorizing the construction of the Municipal Dock, and the legal incorporation by Act of the Legislature of the State of New Jersey of the Port Raritan District Commission, inaugurated a new era of river development, which will be to the economic benefit of the industrial and mercantile interests of the entire community."

### *The Days We Remember*

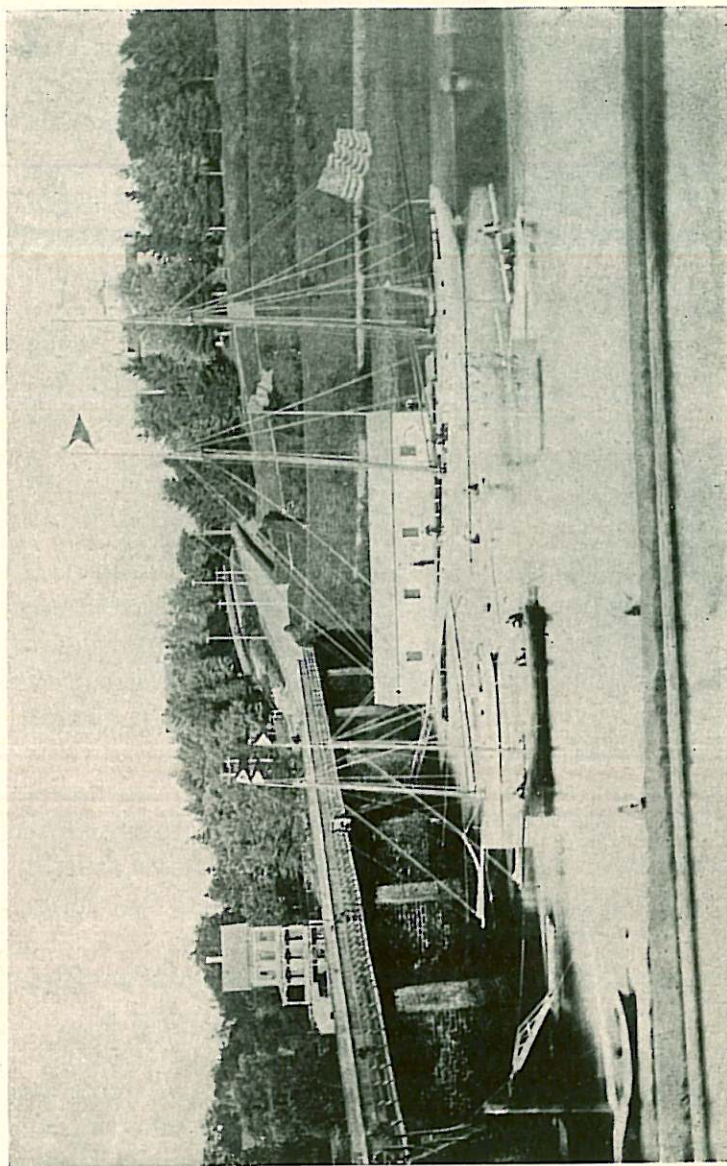
Let the sportsmen speak for the lost glories of this river!

"I can remember," says one, "when the shad used to come up so thick that there were a dozen places for nets." Raritan shad were hawked in the streets for twenty-five cents. They used to be salted by the barrel, and pickled roes were a common delicacy.

"The shad today," Van Dyke says, "come in limited numbers, and only for a few days. At evening I still see some venturesome leaders moving up the river, cutting wakes in the shallow water, but the water is no longer pure enough for great numbers of them."

Others remember the frolics of the Frost Fish Club. "The frost-fish"—to quote Van Dyke again—"is a pretty silver-scaled specimen peculiar to this river, and is not a smelt as is commonly supposed. . . . Time was when he came up the Raritan in great schools, was caught by the bushel, and sold by the peck, but that





*This picture, taken some years ago at the Albany Street bridge, shows how boating flourished on the Raritan before the pollution became too great*

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time is past." There used to be fighting to decide who should pull the nets on the next tide!

"What fond memories of my youthful days in New Brunswick!" says Major General William Weigel. "I recall the days when we used to go down to Fox's Gully for an outing. We would go out in the river and catch a mess of fish and then roast them in the gully.

"That took place forty-four years ago and then just before I left for the Philippines, I came up the Raritan on a government boat for a visit to the Raritan Arsenal and what a difference had taken place in the river! The stench from dead fish and pollution was nauseating. I was grieved to learn that this once famous stream had been turned into an open sewer, killing fish life, making swimming dangerous and boating unpleasant."

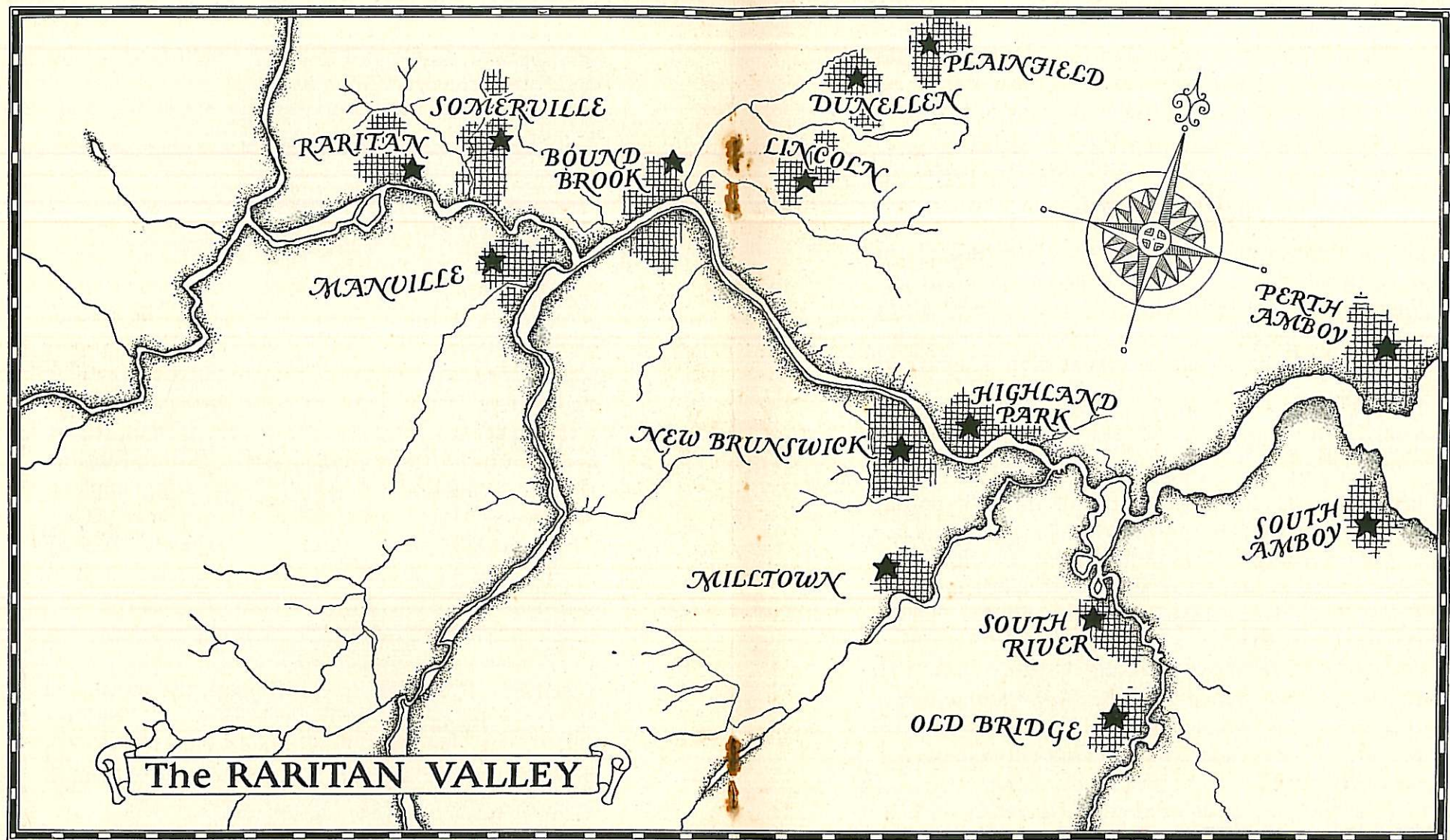
"Years ago," says another old resident, "Amboy oysters were famous all over the United States. Today, if you could find one, it would not be fit to eat."

The perch have gone. The sunfish have gone. The small-mouthed black bass have gone.

Hardly a fish is left except the carp, the catfish and the eel—who "can grow fat in a drainpipe." The river is poisoned, and when the poison does not kill the fish directly, it kills the plant and animal life on which fish must feed.

Fishing for food is hopeless, and angling as an art languishes in this place where once it was a jovial tradition.





EVEN THOSE WHO LIVE ON THE RARITAN RIVER DO NOT REALIZE ITS IMPORTANCE. EXCEPT FOR THE DELAWARE, IT IS THE LARGEST RIVER SYSTEM IN NEW JERSEY. MANY MUNICIPALITIES HAVE AN ECONOMIC INTEREST IN THE LOWER PART OF THE RIVER



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The wild duck which used to visit the river, to the delight of the hunter, come no more, because there are no fish on which to feed, nor will the duck swim in polluted waters.

Such is the proud achievement of our civilization!

*"Jolly Boating Weather"*

On the veranda of the New Brunswick Boat Club the older members, as one of them sadly says, "sit and long for the days of the boat races and the canoe tilting contests, canoe races and tub races and all the other sports which go to make a boat club a source of pleasure.

"Pictures on the club walls show how popular the aquatic sports were over a long period of time.

"There was always plenty of competition. All one had to do when he wanted to try his ability in pulling the oars was to mention it at the Club, and he found someone willing to give him a race. Crews found the same situation and there was never a lull until the water in the river became too badly polluted to make rowing a pleasure.

"Scenes of the boat races on the river show that thousands lined the banks of the river, the towpath of the canal, the Albany Street bridge and occupied barges and boats of all kinds and sizes in order to witness the sport."

With the congestion of automobile traffic, there are signs that in many parts of the country people are returning to the water for pleasure riding—to motor boats and sailboats, skiffs and shells and canoes, to

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races and regattas and water carnivals. But not on the Raritan!

There is no pleasure in boating on dirty water. There is no fun in painting a boat if it is going to turn black overnight. And foul odors are no substitute for fresh air.

*Do Not Swim Here*

Only six years ago, in 1922, some of the greatest swimmers in the world were breaking records in the waters of the Raritan. On that occasion Gertrude Ederle broke the 440-yard record to defeat Hilda James of England.

That was a gay scene. The bridge was thronged with eager onlookers. Motor boats, barges, canoes, rowboats, made a colorful lane along which the swimmers sped. Raritan folk were justly proud.

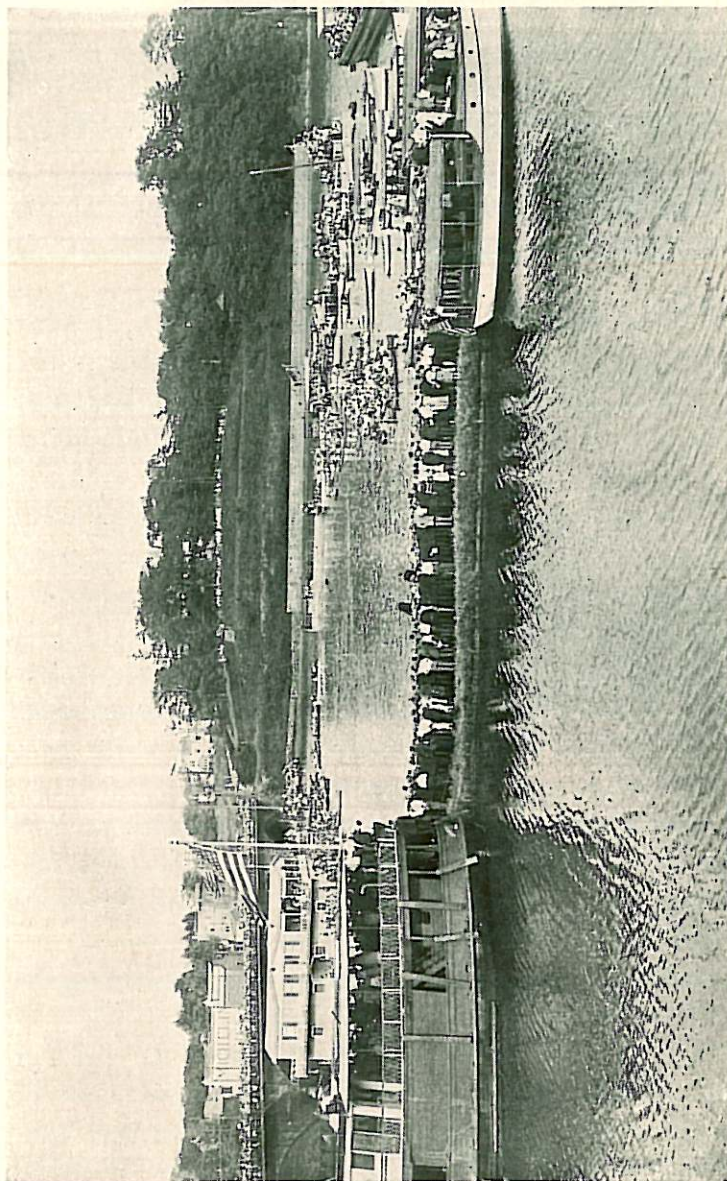
Then Helen Wainwright climbed out of the water and complained that it tasted sour. Other contestants agreed. Since then there has been no swimming meet hereabouts.

Now the members of the Boat Club rarely go into the water which they loved. But thousands of people each summer still swim opposite Tea Pot Inn. Little do they realize the risks they run.

Here are the cold facts, as stated by a scientist, Dr. Willem Rudolfs, of Rutgers University:

"The chemical and biological survey carried out during the last six months by the Department of Water Supplies and Sewage Disposal of Rutgers University, at the request of the Raritan Valley Conserva-





*The great swimming meet of 1922 when Gertrude Ederle broke the 440-yard record. It is now dangerous to swim in the river because of the disease-bearing bacteria*

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tion Association and the Port Raritan District Commission shows:

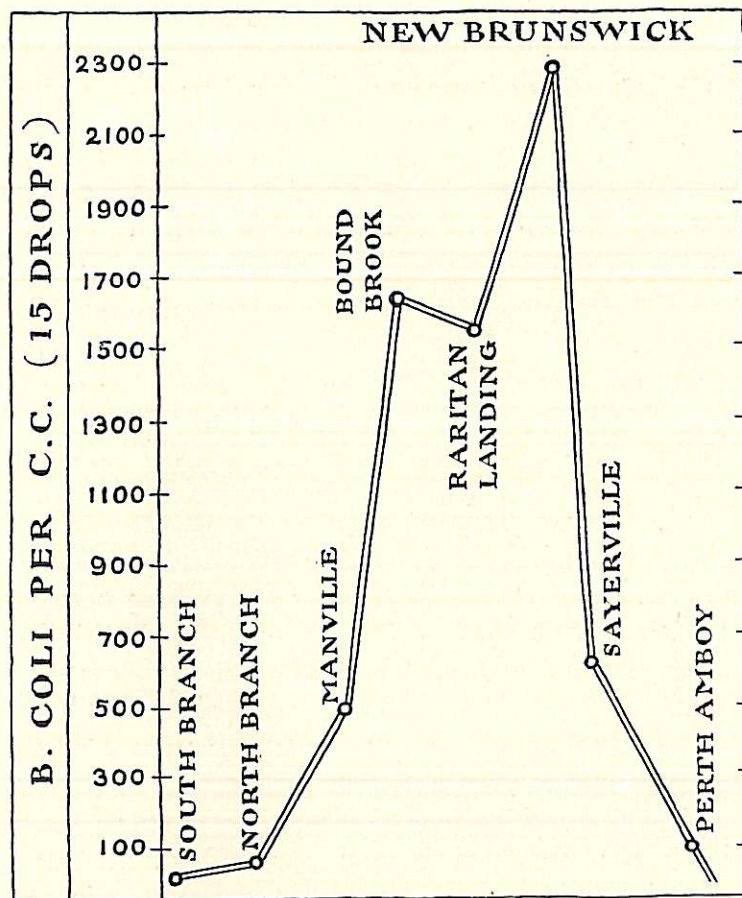
"That it is dangerous to swim in the Raritan River anywhere from the town of Raritan to Perth Amboy. As an illustration, the following might be cited: Dr. Harris, health commissioner of New York City, has condemned recently for bathing and swimming, and suggested police supervision against bathers in a number of bathing places around New York, because bacteriological tests showed that these waters contained more than 30 members of the so-called colon bacilli per one cubic centimeter or 15 drops of water.

"The average number of colon bacilli per 15 drops of water found in the Raritan River during the last six months varied from 80 to 2,050, anywhere between the town of Raritan and Perth Amboy, the highest numbers being present about half a mile below New Brunswick, where the accumulative effect of all the sewage discharged into the river from the different towns becomes most apparent.

"The presence of such large numbers of colon bacilli makes the water unsafe on account of their attendant menace of typhoid and other ills. Swimming in polluted waters infected with disease-bearing organisms is not only a menace of a typhoid epidemic, but it might also produce sinusitis (abscesses), conjunctivitis (inflammation of the membrane covering the eyeball), infections of the eyes, mouth, etc., and skin eruptions.

"It is also dangerous to swim anywhere in the canal below the lock at the landing bridge, in Millstone





THIS graph shows the pollution at various places in the Raritan River as indicated by the average yearly number of B. coli organisms found per cubic centimeter of water. B. coli organisms are used as an index of domestic pollution and menace to public health, because they are considered to be associated with disease-bearing bacteria. The graph shows that the pollution of the river increases rapidly as it flows down-stream, until just below Bound Brook. Here it decreases somewhat, in spite of receiving additional sewage, because the turbulence at the Five Mile Dam causes air (oxygen) to dissolve into the water, thus purifying it to some extent. The highest point of pollution is reached one-half mile below New Brunswick. From there on the effect of the salt water and the tides is evident in the decrease of pollution.

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River, below the bridge above Manville and in the South River below Old Bridge."

### *Is a Water Famine Coming?*

In 1859 a chemist took samples of the water from the Raritan one mile above New Brunswick, analyzed them and reported that it was "a remarkably pure water, and would have served the city well."

"At one time," says Harold O'Neil, "captains brought their barges and sailing ships up the river as far as Tea Pot Inn to fill the water casks before making long trips. The captains said that the water taken from the river at that point was far superior to any they could procure elsewhere, and they boasted that it retained its sweetness and kept its refreshing quality longer than any other water they knew."

Today who dares to drink the waters of the Raritan?

Fortunately, the residents along its banks have made provision to obtain their drinking water elsewhere. But the day is almost certain to come when it will be necessary to draw upon the Raritan for drinking water. Already that has happened once in time of drought.

The population in the lower Raritan Valley today is at least 150,000. Twenty years hence it may easily be half a million, and forty years hence a million. With the completion of the Holland Tunnel and the coming completion of the Fort Lee Bridge, the rise of population throughout all northern New Jersey is estimated to reach four million by the year 1950.



New Brunswick is on the very rim of the greatest metropolitan district in the world.

The daily use of water in northern New Jersey has increased fifty million gallons in the past decade. Plotting the curve of demand shows that by the time the new \$25,000,000 Wanaque project is completed it will be used to capacity, and it will take ten years to provide another.

The cities along the Raritan have at present an adequate supply. It does not need much imagination to see that their growth may easily be such as to cause a water famine, compel the utmost economy and finally force them to drink from the Raritan. They would naturally draw upon the upper reaches of the river, which are still comparatively pure.

But with the rate at which pollution is moving upstream, how long will they remain pure?

### *The Next Great Conservation*

The Raritan Valley is not alone in facing the dangers and responsibilities of stream pollution. This is the new nation-wide problem of conservation.

"To stay the march of pollution is the first task before the country," says Harold T. Pulsifer, publisher of the *Outlook*. "The movement to cleanse our waters is the one conservation movement which touches the health and happiness of every American."

"No doubt the control of stream pollution," says Frank R. King, of Wisconsin, "will present itself in the near future as one of our greatest problems to be solved."

Even the most ardent conservationist would not maintain that a river should never be used to carry away waste matter. Dr. Rudolfs says: "The economic uses of streams can today be divided into two main parts: first, use of streams as a source of water supply for human, animal and industrial consumption, and to support fish life, and second, as a ready, simple and economical convenience of waste disposal. A flowing stream has great powers of natural purification, but the growth of cities, towns and industries along its banks is so rapid that the limit of self-purification of a stream is soon reached if no attempt is made to diminish the amount of pollution and thereby decrease the burden imposed upon the stream. Such streams become eventually nothing but open sewers."

### *A Penalty of Civilization*

A publication of the United States Public Health Service states that wherever pollution has been long continued, "Real estate values along the banks sank to a low ebb except where commercial necessity kept them up, the better class of citizenry withdrew. . . . At the same time the water became unfit for drinking purposes, and could not be artificially purified for such use, and in some instances it could not even be rendered fit for manufacturing use. The recreational use of the river for boating and swimming had long been a matter of the past. Fish had long become extinct. . . ."

There in a government document we have a summary of what has happened to the Raritan, and what is likely to happen.





*An airplane view of New Brunswick and the river. The population in Northern New Jersey is estimated to reach four million by the year 1950*

(Permission Airmap Corp. of America)

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Of course, pollution is a penalty of civilization. Does this mean that it is necessary to continue to pay the penalty—at fearful risks? Not at all.

We need not look far afield to find an example of what the Raritan will become if it is neglected longer. The Passaic, described feelingly as a river “much abused and sorely tried,” passed through the phase through which the Raritan is now passing.

“Once a fair and beautiful river,” says the report of the Passaic Valley Sewage Commissioners, the Passaic had become, “under the ruthless hand of man, a black winding ribbon of water, sullen to view and an offense to the nostrils, making its presence appreciable for miles by reason of its foul and stinking odor. It had often been described as an open sewer, and this literal description was by no means an exaggeration. The river was receiving a burden of pollution from domestic sewage and industrial wastes approximating in volume its normal dry weather flow. Long ago the natural digestive capacity of the stream, which would enable it to inoffensively assimilate and dispose of a certain amount of waste, was overburdened and lost, and a pleasant waterway had become converted into an ugly, black, oily, stinking drain. Tons and tons of sewage solids deposited in deep layers along its bed, the active decomposition of which added its contribution to the noisome stench arising from the water. . . .

“Looking back some years, we find that in the summer of 1894, during a period of drought, the Passaic River made its presence known to such a degree that





*Sewage disposal is one of the natural functions of a river. But the time comes when a river has more waste matter than it can bear without becoming an open sewer and nothing more*

the State Department of Health was inundated by complaints."

Not until 1924, thirty years after the Passaic had become almost intolerable to residents along its banks, was the remedy undertaken. Two years later the commissioners were able to say:

"Some of the large textile plants have gone back to the use of river water for washing their goods in going through their processes, one large swimming pool has

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been in successful operation for two seasons on the river bank; another concrete pool is in process of construction; many more motor boats have made their appearance on the river; men have been seen practising rowing for the boat races; boats and boathouses have been painted up, many using white paint without fear of its turning black over night; even the houses have been painted up and held their colors; many races and regattas have been held and boatmen are very optimistic about the river; small fish have appeared where they had not been seen for years; real estate values have jumped high along the river; a parkway is being considered; the river bottom is plainly visible at times through considerable depth and it is sandy instead of slimy."

#### *Must the Raritan Wait Thirty Years?*

The pollution of the Raritan River today is as bad as that of the Passaic was. It is not so noticeable because the pollution has not been going on for so long a period. But the present amount of pollution is sufficient, without any increase, to reduce the Raritan to the same disgraceful condition as that which finally compelled action on the Passaic.

The late Professor George C. Whipple, of the Harvard Engineering School, said, "Certain things have been demonstrated by experience. The pollution of a stream may steadily increase without serious offense and without attracting much attention, until suddenly a crisis is reached, the dissolved oxygen disappears from the water, and the river is wrecked."





*The increase of population brings with it an increase in the amount of sewage which we do not realize until we see the size and number of sewer outfalls pouring their contents into the river*

We need not jump to the conclusion that the remedy for the Raritan will have to be the same, or as expensive, as that necessary on the Passaic.

As long ago as June, 1925, the Sanitary and Economic Commission declared officially: "*In our judgment it is practicable and economically advisable to save the Raritan.*"

Within a short time there will be available the results of the thorough survey made by Rutgers University, covering a period of a year. This will show the exact amount of pollution at various points, and the causes. The next step will be an engineering study to determine the means of correction.

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### *What Does Saving the Raritan Mean?*

Saving the Raritan means warding off a disastrous drop in property values along seven miles of the valley on both sides of the river.

It means attracting new industries and holding those already here, some of which may be lost if the pollution continues.

It means the gradual return of fish, for food and for sport.

It means the revival of boating and swimming.

It means opening up the shores for camps and parks and drives.

It means greater beauty of the scene, and fresher air.

It means the prevention of epidemics, skin diseases and eye infections.

It means protection of the potential water supply of the generation now growing up.

It means clearing a pest hole off the great thoroughfare which must be crossed by millions of people travelling by railway, airway and highway.

It means a valley more prosperous and more deserving of the pride of its citizens.

How soon will the people of this valley accept the challenge voiced by President Thomas of Rutgers University: "*We made the Raritan River dirty, and it is up to us to make it clean.*"