

Appendix A-1

Abstract of:

Report on Condition of the Water

ARTHUR KILL—August 1937

Received from: Joint Meeting in Letter dated November 22, 1937

GENERAL PROCEDURE

A series of water samples were collected for fifteen consecutive days between August 23rd and September 6th, 1937. Dissolved Oxygen tests were run immediately following collection, remaining portions of the samples were diluted and incubated for periods of five days to determine Biochemical Oxygen Demand.

Since the receiving water is strongly influenced by tidal conditions, it was imperative that the determinations be made so as to include all stages of the tide. This was obtained by taking the samples at the same time each day, while the stage of the tide varied throughout the complete cycle.

METHODS OF PROCEDURE

1. The sampling points were located as follows:
 - A. The Southernmost dock of the Standard Oil Company.
 - B. Adjacent to the Joint Meeting Outfall. (At ebb tide the sample was taken NORTH of the outfall, and at flood tide SOUTH of the Outfall.)
 - C. The Central Railroad Pier, at the Southern end of Newark Bay.

In general the above points correspond with the locations selected last year and are approximately one mile on either side of the outfall sewer.

2. The samples were collected the same time each day.

Since the stage of the tide is approximately 50 minutes later every day, this means that samples are collected under different tidal conditions daily for a fortnight.

3. The samples were collected at a uniform depth of five feet below the surface of the water.

SEWAGE CONTRIBUTED TO ARTHUR KILL AND ADJACENT WATERS

During the past year a considerable reduction in the amount of the untreated sewage discharged into waters influencing Arthur Kill has been accomplished.

During the year 1937, the following plants have been completed and placed into operation:

The Joint Meeting Sewage Treatment Plant at Elizabeth—serving 12 municipalities in Essex and Union Counties with an estimated connected population of 300,000 people and a daily flow of approximately 25 million gallons.

The Rahway Valley Joint Meeting Plant at Rahway—serving an additional 9 municipalities in Union County with an estimated connected population of 60,000 people and a daily flow of approximately 6 million gallons.

(The above plants formerly discharged raw sewage into Arthur Kill.)

Several Plants in the Raritan River valley, noticeably New Brunswick and Highland Park. It may be considered here that in view of the improved condition of the Raritan Valley that effects of sewage

pollution from this source may be eliminated from consideration in relation to Arthur Kill.

A year ago (July 1936) reliable figures published in the *Sewage Work Journal* indicated the following:

SEWAGE INFLUENCING ARTHUR KILL

	<i>Treated</i>	<i>Partly Treated</i>	<i>Untreated</i>	<i>Industrial</i>
1936	10.5 MGD	17.9 MGD	80 MGD	Unknown
(the above figures considering influence of Raritan Valley)				
1937	5.1 MGD	44.7 MGD	32.7 MGD	Unknown
(the above figures do not consider influence of Raritan Valley)				

In short, the year 1937 has seen the volume of untreated sewage in Arthur Kill reduced by almost 60%.

The sewage polluted waters of the Kill move back and forth with the tidal currents for an indefinite period before being ebbed to sea. Fuertes estimated in 1921 that the detention period was from 2 to 3 days. The direction of flow and the velocity of the current at any point depends upon the state of the tide. A complete picture of the tidal movement may be had from examination of Publication 555 of the U. S. Coast and Geodetic Survey entitled "Tidal Currents in New York Harbor."

In brief, a typical example of an EBB tidal current flow in Arthur Kill follows:

The flow from Newark Bay is moving South. A portion flows into Arthur Kill (the balance moving out Kill van Kull.) The flow from Arthur Kill moves south, joins the Raritan River flow at the channel junction in Raritan Bay and goes east to

Sandy Hook. The velocity at the mouth of the Elizabeth River varies from 0.6 to 1.3 knots at Spring tides.

A brief description of the opposite FLOOD tidal movement:

A portion of the flow from Raritan Bay is moving north into Arthur Kill. The water in Arthur Kill is moving north into Newark Bay. The velocity at the mouth of the Elizabeth River at Spring tide varies from 0.7 to 1.7 knots.

DISSOLVED OXYGEN FOUND IN ARTHUR KILL—1937

The average Dissolved Oxygen content over the whole area sampled was 19% (average of 45 tests) of saturation. On two occasions there was no dissolved oxygen present in the samples taken; on six occasions there was less than 1%. The maximum amount found during the test was 63%. Condensed figures for each sampling point follow:

Dissolved Oxygen—Percent Saturation

<i>Sampling Point</i>	<i>Average</i>	<i>Minimum</i>	<i>Maximum</i>
A. (Standard Oil)	11	0	25
B. (Outfall Sewer)	14	0	25
C. (Newark Bay C. R.)	31	1	63
Whole area-average of all tests	19		

In comparison with the results of 1936, the average of 45 tests showed an increase of 46% in the amount of dissolved oxygen found. The minimum amount showed no improvement—being entirely absent in both cases. The amount of maximum dissolved oxygen present showed 61% improvement.

Conclusions: The amount of Dissolved Oxygen in Arthur Kill waters south of the Joint Meeting Outfall has shown no appreciable improvement during the year. This is also the case of the conditions determined adjacent to the outfall itself. A great improvement however has been noticed at the southerly end of Newark Bay and in the

Elizabeth River. (It is here noted that the old outfall of the Joint Meeting at the foot of Bayway Avenue about 1,200 feet south of the New Outfall continues to be used by the City of Elizabeth and discharges about 10 Million Gallons of untreated sewage daily.) This amounts to about 40% of the Joint Meeting flow.

VARIATIONS IN DISSOLVED OXYGEN WITHIN SAMPLED AREA

Figures of the amount of dissolved oxygen near the end of the flood and ebb currents, as well as figures for the flood and ebb currents follow:

Sampling Point	Dissolved Oxygen, Percent of Saturation			
	Near End of Flood	Near End of Ebb	Average Flood	Average Ebb
A. Standard Oil)	4	10	8	13
B. (Outfall Sewer)	3	22	8	20
C. (Newark Bay)	1	51	6	48
Whole Area	3	28	7	27
Reference	5th-6th day	11th-12th day	Average of 6 tests	Average of 9 tests

The results obtained from five day Biochemical Oxygen Demand tests at 68° F. follow:

Sampling Point	Five Day B. O. D.			
	No. Samples	Average	Maximum	Minimum
A. (Standard Oil)	15	6.6	12.2	0.7
B. (Outfall Sewer)	15	3.7	15.1	0.6
C. (Newark Bay)	15	2.0	6.9	0.4
Whole Area	45	4.1 Average		

DISCUSSION

Results this year show slightly higher B.O.D. values than last year. Minimum values show improvement as a definite result of reduced pollution. Maximum values

show increase due to the fact that during the 1936 series of tests Point B was 1200 feet away from the then used sole outfall sewer, while in the present series Point B is immediately adjacent to the Joint Meeting Plant main outfall.

APPENDIX B

ARTHUR KILL AND RARITAN BAY

DISSOLVED OXYGEN—1915

U. S. PUBLIC HEALTH SERVICE

Name of Station	Distances from Junction Arthur Kill and Newark Bay Nautical Miles	Number of B. Coli per c.c.	Total Count on agar at 37° C.			Dissolved Oxygen Percent Saturation.		
			Average	High	Low	Average	High	Low
Junction of Kill Van Kull and Newark Bay	0.0	31.6	3,165	4,500	1,830	47.1	48.6	45.5
Milliken Iron Works	1.1	316	3,050	3,800	2,300	40.1	42.8	37.4
Mouth of Elizabeth River	1.8	31.6	5,100	6,700	3,500	34.3	39.5	29.0
Outlet of Joint Trunk Sewer	2.4	1,000 +	10,700	15,800	5,600	39.7	40.2	39.1
Graselli	3.6	316	4,910	9,200	620	35.4	35.7	35.0
Above mouth of Rahway River	4.75	316	2,075	3,000	590	34.0	37.7	29.0
Below mouth of Rahway River	5.1	31.6	1,060	1,770	320	35.5	41.6	32.4
Mouth Fresh Kills	6.25	5.6	885	1,450	460	36.0	42.3	30.4
Opposite P. R. R. docks	7.7	17.8	648	1,000	370	48.2	56.9	41.0
Red Buoy above Tottenville	8.75	10	193	350	40	60.2	62.8	54.9
Buoy off Tottenville	10.8	1. +	160	160	160	61.5	61.5	61.5
Opposite Perth Amboy Yacht Club	11.75	6.3	177	330	60	69.2	71.2	65.5
Opposite South Amboy	12.75	10. +	180	180	180	56.4	56.4	56.4
Great Beds Light	13.75	10. +	98	98	98	61.8	61.8	61.8
Junction of Arthur Kill and Raritan River	14.0	46.8	149	320	60	62.1	70.0	52.9
Princess Bay	16.75	1 +	100	120	80	71.8	78.0	65.6
Nun Buoy entrance to Cut-off Channel	18.6	3.2	100	130	70	81.8	88.7	74.8
Nun Buoy No. 2, off Great Kills	21.25	3.2	175	270	80	88.6	89.6	87.5

APPENDIX C

EDITORIALS

1937

Publication	Date	Publication	Date
New York Daily News	June 11th	Long Island Daily Press	June 28th
Newark, N. J., News	June 2nd	Yonkers, N. Y., Herald Statesman	June 12th
New York Herald-Tribune	June 11th	Long Island Daily Press	July 15th
Staten Island, N. Y., Advance	June 4th	Long Island Daily Press	July 29th
Brooklyn, N. Y., Times-Union	May 28th	Sea Cliff, N. Y., News	July 30th
Red Bank, N. J., Standard	May 19th	Brooklyn, N. Y., Daily Eagle	Aug. 20th
Yonkers, N. Y., Herald Statesman	July 7th	New York Daily News	Aug. 21st
		Newark, N. J., News	Aug. 23rd
		Brooklyn, N. Y., Daily Eagle	Sept. 11th
		Long Island Daily Press	Nov. 6th

To Commissioners and Counsel:

June 18, 1937

The Commission has received considerable amount of favorable comment in the press. Some of the representative editorials are as follows:

New York Daily News, June 11th, 1937:

HUDSON POLLUTED

We quote from the remarks made from James L. Barron, Westchester Sanitation Director, at an Interstate Sanitation Commission hearing held day before yesterday at White Plains:

At present, recreational uses along the Hudson River are being sacrificed and gradually destroyed by the discharge of untreated or inadequately treated sewage from Irvington, Tarrytown, North Tarrytown, Briarcliff Manor, Sing Sing Prison, Ossining, New York Central Harmon Shops, Croton-on-Hudson and Peekskill, and, to a lesser degree, by many communities outside.

The river water has now reached the critical limit of bacterial pollution, and dissolved oxygen is seriously depleted at certain points.

We're in favor of any measures that will halt this pollution of the Hudson River, one of America's most beautiful rivers, sometimes compared favorably with the Rhine. We think the Hudson is more beautiful than the Rhine.

The Hudson's west shore Palisades have been protected for years from various kinds of gouging and defacement. Evidently the time has arrived to take steps for protection of the Hudson's east shore.

Of course, if the river itself is polluted to the infectious point by riverside towns' discharge of untreated sewage into its waters, its banks necessarily become unsafe for bathing beaches, boat clubs and the other recreational activities that belong on the banks of a beautiful river. The Hudson east shore ought to be given over to these purposes as largely as may be, for the benefit of both Westchesterites and New Yorkers.

Sanitary sewage disposal, either by incinerators or sewage treatment plants, is no cheap job for any city or town. But we believe the Hudson River towns will save themselves money in the long run by attacking this problem with ample funds now. Their choice appears to be limited to two things: either adequate sewage disposal, or shrinkage of property values and business because fewer and fewer people will want to play along a polluted Hudson.

Newark, N. J., News, June 2nd, 1937.

"PROBLEMS OF POLLUTION"

Public attention has been focused again on control of tidal water pollution in the metropolitan area as a result of a hearing held by the Interstate Sanitation

Commission on the status of Newark Bay. The commission will determine whether the bay shall be designated as Class A or Class B: that is, whether, under Class A, the waters are to be reserved for recreational pursuits and fish culture, or whether the bay shall be placed in Class B and used for industrial purposes. As usual with public questions, final disposition is not simplified by the conflicting interests of the municipalities involved.

Whatever the outcome, authorities predict the controversy will bring at least partial abatement of present pollution in the bay. That will help, but the bay figuratively is a drop in the bucket in the regional scheme of pollution control. Engineers have variously estimated the cost for the tidal waters of New Jersey, New York and Connecticut at \$300,000,000 to \$400,000,000. Obviously the tri-state project could not be carried to fulfillment without federal aid because the problem is constantly becoming more ramified. As the density of population increases and industrial expansion continues, the danger to public health grows more acute wherever adequate control of sewage is not in effect.

Necessary measures for the disposal of industrial and household wastes must be taken if health hazards are to be reduced and invaluable recreation facilities preserved. The Legislature has voted \$100,000 to establish a new state park at Raritan Bay and Cheesecake Creek. The waters at that point are dangerously contaminated. Sponsors of the park in the Legislature have promised conditions would be corrected. It is the Legislature's obligation to compel correction.

Years and hundreds of millions of dollars will pass before this region's problem is surmounted. Yet New Jersey knows that progress is possible. Compare conditions along the bathing beaches of the North Jersey coast today with what they were a few years back. It took expensive litigation and time to reduce pollution, but reduced it was. Meantime the State Department of Health continues its valuable contribution to the work by compelling communities to comply with legal sanitary standards designed to reduce the hazards and nuisance of pollution.

Herald-Tribune, June 11th, 1937.

"FOR CLEANER WATERS"

It is encouraging to learn that Westchester County is showing renewed interest in the problem of keeping the waters of Hudson and Long Island Sound clean. Not that Westchester has been remiss in this respect. Quite the contrary. Westchester County has done what it could to put an end to indiscriminate disposal of sewage and industrial refuse. The

significance of the latest move lies in the fact that Westchester is once more setting an example to other counties. Only by co-operation between the counties and towns along the Hudson, Long Island Sound and New York Harbor is there any hope of ever ending the pollution of waters in and about these regions.

New York City and the industrial regions of New Jersey are, of course, the worst offenders. The Interstate Sanitation Commission has been doing what has been practicable to arouse local officials to the need for co-operation in fighting this evil. Here in New York spasmodic efforts have been made to improve conditions. But the city authorities have steadfastly failed to accept any of the long-term proposals made with a view to keeping ahead of population growth. Long Island presents special problems. These must all be co-ordinated and effectively pushed.

But if anything is to be accomplished public opinion must be aroused. This the Westchester meeting has done—at least locally. The condition of the Hudson is, of course, only in part due to local pollution. If more regions would show the same intelligent interest as Westchester the pollution problem would be sooner settled.

Staten Island Advance, June 4, 1937.

"MT. LORETTO FOLLOWS SUIT"

Inch by inch, public demand for elimination of pollution is getting results. Recently Richmond Memorial Hospital began to operate its chlorination plant. Yesterday Mount Loretto, a town in itself, announced that construction on a \$15,000 sewage treatment plant will be started within a week or ten days.

This voluntary action by two large institutions will cleanse a large beach frontage which two years ago showed a bacterial count almost as great as water samples taken near the Narrows during tests conducted by the Staten Island Advance in collaboration with Wagner College.

It is safe to assume that similar results are being achieved in other communities fronting the waters which empty into New York Bay.

The cleansing process will be gradual, of course, but under stimulation by the Tri-State Pollution Commission, our beaches should recover a semblance of their former cleanliness within the next decade or two, so that oyster dredging, clamming and lobster fishing may flourish again in years to come.

The benefit to beachfront property owners and the public, of course, is obvious.

Brooklyn, N. Y., Times Union, May 28, 1937.

"FOR CLEANER WATERS"

With the coming of warm weather and the recurrent, natural desire of many thousands of the city's seven million population for a cooling and invigorating plunge into salt water for a good old-time swim there hobs up the old vexed question of where to find clean beaches.

New York, with a magnificent harbor and a city laved all sides with an abundance of water, has had to face year after year the problem of contamination and to find its bathing facilities ever more restricted because of that problem. For a city with its miles of waterfront it has suffered a heavy handicap so far as swimming goes.

Brooklyn has its Coney Island, to be sure, where millions bathe in the waters of the ocean; there are Jones Beach and Long Beach and various smaller beaches, many of them privately owned, but the question of sanitary bathing places is as pressing as ever.

Late as they may be, steps have at last been taken to render the waters about New York purer and to reclaim some of the waterfront for recreation purposes. Park Commissioner Robert Moses' letter to the Interstate Sanitation Commission, making an earnest plea for the halting of beach contamination and outlining plans for thirty-seven new waterfront park developments, is the most recent of these steps.

With a regretful look back over the past, Commissioner Moses notes that "it is one of the tragedies of New York life and a monument to past indifference, waste, selfishness and stupid planning that the magnificent boundary waters of the city have in a large measure been destroyed for recreational purposes by haphazard industrial and commercial developments and by pollution through sewage, trade and other waste."

It is not proposed, Mr. Moses states, that natural bathing be provided on the shores of Manhattan or those of Brooklyn, Queens, or the Bronx, opposite Manhattan, but that every effort be made "to purify these waters to such an extent that tidal movements will not result in contamination of water in the natural bathing areas along the other water frontage of the city."

Increasing population means greater demand for sanitary bathing places, and it is never too late to clean house.

Red Bank, N. J., Standard, May 19, 1937.

"POLLUTION MUST BE ENDED"

The Interstate Sanitation Commission held a public hearing this morning in New York City. Of late we have not heard much of the perils of pollution, but it was not so long ago that bayshore shellfishermen were up in arms at health restrictions laid down on their catches by New York City on the grounds that Raritan Bay was polluted. We wonder just how many shellfishermen were at this morning's hearing, to assist in clearing up the difficult problem. Pollution is one subject which has been politely waived with only a passing, and general, reference being made occasionally. The cure, in our opinion, would be a campaign of public education such as the one which has transformed venereal diseases from a hopeless ailment, never discussed and seldom the occasion for visiting a reputable doctor, into a disease which requires treatment the same as any other malady.

In addition to the editorials, accounts have appeared in daily press concerning each of our Hearings. During our first Hearings accounts were primarily confined to the local press of the city where the Hearing was held. Now, however, reports concerning the Commission's activities are gaining wider recognition, to the extent that on June 10th the "New York Times" ran an 11-inch column concerning our Hearing at White Plains.

Some excellent publicity was obtained as a result of a letter from Robert Moses addressed to Commissioner Maguire.

Editorial from Yonkers Herald-Statesman of July 7th, 1937.

BATHING BEACHES ON OUR RIVERFRONT

It is difficult for the average resident—even for the taxpayer, who should be deeply concerning—to visualize the possibilities for recreational development along this city's four and one-half miles of riverfront.

Few cities in the New York region—indeed, few cities in America—have such an extensive and such beautiful water frontage as has Yonkers, yet there is probably no portion of the municipality which receives less attention and consideration from the authorities and from the general public.

Although all of the riverfront is zoned for industry, only a limited portion is so utilized. Approximately one-half of the entire strip is vacant and undeveloped in private ownership. The city owns about 3,000 feet; the county, nearly 400; the state, slightly over 400; charitable institutions, 900. The remainder, aggregating about 18,000 feet, is largely undeveloped.

Whatever may have been the former prestige of the Hudson River as a freight carrier to and from Yonkers during the heyday of the sugar refineries, the fact remains that such use has sharply declined.

A portion of the river is utilized in the Summer for bathing purposes—under the severest condemnation of the Health Department.

The City Planning Commission has recommended that city-owned waterfront lands be filled in by the Department of Public Works and thus be made eminently suitable for park and other recreational development. It has also advocated such service by the city "without charge to the owners" for privately owned waterfront. For various reasons this project has been repeatedly blocked.

Such filling in—with clean ashes—would at once solve the municipality's problem of finding a dumping place for this material and at once contribute to a reclamation program of incalculable future values. Ample scope for such fill-in has been provided by the United States War Department, which has officially approved bulkhead lines at a point several hundred feet out from shore, varying with the shoreline.

The Yonkers Chamber of Commerce, perennially approaches the problem of industrial development of the waterfront but virtually everybody has forgotten the need of recreational development. A single set of plans, by which the riverfront at Trevor Park would have been transformed into a cove for swim-

ming, boating, playgrounds and other facilities, has been dust-gathering in City Hall pigeonholes for years.

The reason that few wax enthusiastic about the possibilities of opening the Hudson River shore here to swimming and other river sports—as is done on a limited scale on the New Jersey side—is that the water is so badly polluted that to expose the human body thereto is actually perilous. The B coli bacilli, when coming in contact with mucous membranes, can cause such irritations and damage that the results may be grave.

But now an approach is being made to curb the pollution, perhaps to eliminate it completely. This is a long-term program—perhaps requiring decades for completion—but it is a gigantic task very much worth doing.

Tomorrow morning at City Hall, the Interstate Sanitation Commission will hold a hearing to ascertain the wishes of Yonkers officials and Yonkers residents as to the riverfront's future. It will seek information, upon which to base a decision whether Yonkers is to be Class A frontage or a Class B. The former means that it will be so protected that the waters will eventually be so clean that they will be accessible for bathing, fishing and other purposes; the latter means that they will perpetually continue for industrial purposes.

In more practical language, it means that Yonkers may be in a position—now, this week—to choose whether it wants the best treatment which a two-state anti-pollution authority can provide, or whether it chooses to be classified as meriting little or no consideration.

It means that we shall know whether some day Yonkers boys and girls will have swimming beaches and swimming pools all along the river front, and boating coves and playgrounds too, or whether it will still be necessary for Yonkers residents to travel to Long Island Sound, or even to Long Island itself, to take a swim and loll on a public beach.

There is room to have our industrial piers and bulkheads—and to lay the foundations for a recreational future which can bring the city eventual dividends of inestimable scope and value.

But it can't be done by wishing. It can be done by speaking up before the Interstate Sanitation Commission and by following through—in months and years to come—with official, semi-official, group and individual pressure to achieve such eminently salutary ends.

EXTRACTS FROM EDITORIALS

Some Editorials have appeared in the Newspapers since the last meeting of the Commission, but due to their length, they will be summarized instead of being quoted verbatim.

The Long Island Press, Jamaica, New York, under the date of June 28th, carried an editorial "Pollution Widespread," expressing the hope that pollution of New York Harbor will be reduced through the activities of the Interstate Sanitation Commission and stated "the Commission should attempt to educate the public to what is required, and advertise its plans so that progress can be followed."

The Yonkers Herald Statesman of June 12th, carried a reprint of a recent editorial of the Herald Tribune, copies of which were sent to the Commissioners. It also carried an editorial headed "Naming Names" stating that the hearings have been more valuable than appeared on the surface, not merely to receive evidence but quite as important a frank "getting down to brass tacks, the naming of names." It further states that although the abatement of pollution is an exceedingly expensive procedure, still if Westchester county wished to utilize its river recreational resorts and capitalize the lovely river banks an ambitious beginning will have to be made. "So great a community asset is our riverfront that the greatest possible precaution and provision are warranted—and a considerable outlay of public funds to safeguard the river and the public health as well can also be regarded as a decidedly sound investment.

There have been several articles in the Hudson River Valley papers which do not refer specifically to the Interstate Sanitation Commission but rather to the problem of abatement of pollution.

The Beacon News of June 21st, states, "Before the State Health Department can force Hudson River towns to spend millions on disposal plants it would have to prove that sewage discharged into the river is a menace to public health. This it cannot prove. It has yet to cite any precise reason why the taxpayers should be overburdened to change over their sewer systems. The feeling of citizens is not hostile to disposals as an eventuality, but they contend that until more prosperous conditions prevail they should not have their taxes added to.

The Newburg News also carried the same article. A previous issue of June 16th, referred to an article in the Peekskill Star summarized below. The Newburg News went on to question, why the river should be made pure for recreational purposes. It stated that "we have hundreds of lakes and numerous interior rivers and streams and a far-flung seacoast for swimming."

The Peekskill Star of June 12th, carried a long editorial indicating that the spending of many thousands of dollars for sewage treatment is likely to bring to the public mind the fear of pouring dollars down a "rat-hole," it states however, that it has to be done. It further states that there is a bright side to this big community project. A satisfaction

of knowing that all communities along the Hudson River are obliged to make the same sacrifice for the sake of eliminating the pollution of this beautiful stream.

The Poughkeepsie Evening Star of June 11th, carried an editorial: "We Are Among the Guilty." It states that movements to end the pollution along the Hudson are long overdue, that it would cost a good deal of money and take years to correct, but it is a task which must be attacked eventually. It states: "in reference to the dilatory tactics in connection with the abatement of pollution and the construction of sewage plants, we're getting away with it now—by our evasion tactics—but that can't last long"

Jamaica, L. I., N. Y.-L. I. Daily Press editorial, July 15, 1937.

SAVE THE BEACHES

POLLUTION A PROBLEM

No more important task faces the Interstate Sanitation Commission than prevention of pollution in waters which lap the shores of Nassau and Suffolk counties.

Point Lookout, Long Beach, Fire Island State Park, Heckscher Park, the fashionable Hamptons and a score of other smaller beaches on both shores are concerned in the persistent spread of pollution which, if not checked, will render this entire area unfit for bathing.

The Long Island State Park Commission has millions of dollars invested in state-owned resorts along the south shore. This investment will go to pot if the Atlantic Ocean and Great South Bay become contaminated. There is scarcely one beach along the entire New York City waterfront where bathing is entirely safe. The Rockaways prove the exception, thanks to the broad sweep of the Atlantic Ocean at this point. Jamaica Bay areas are polluted; the entire stretch of the East River into Long Island Sound is contaminated.

Water pollution is not impossible to prevent. In congested areas it might not be possible to maintain Grade A areas but contamination can be kept to a minimum.

Independent tests at Jones Beach indicate that water pollution is increasing there on the bay side. It has not, of course, reached the danger stage by any manner of means, but there is handwriting on the wall which cannot be ignored.

Park Commissioner Robert Moses has written to Seth G. Hess, Chief Engineer of the Interstate Sanitation Commission, as follows:

"The question of sanitation in Nassau County, with particular reference to the disposal of sewage is becoming more vital every day. . . .

"My own experience in New York City in connection with the effect of water pollution on recreational areas serves to emphasize the im-

portance of avoiding on Long Island east of the city line, the tragic mistakes which have been made by the city in the past in the pollution of its once matchless shoreline."

Mr. Moses echoes the sentiment of every Long Island resident who loves and appreciates the Island's beaches.

Water pollution must be stopped!

Editorial from Jamaica, N. Y., Long Island Press of July 29, 1937.

BEACH POLLUTION DRIVE

A NOTEWORTHY COMMITTEE

Without any fanfare, a non-salaried commission of citizens has been carrying on an important survey, the study of pollution along Long Island's shores which is under the direction of the Interstate Sanitation Commission.

A series of hearings will be completed next month and then the State of New York and New Jersey will be handed recommendations for alleviating the conditions which are slowly spoiling invaluable natural waters and harbors.

The spread of conditions which have spoiled Jamaica Bay and other waters in the vicinity of New York Harbor is fully recognized now as a stupid waste of public wealth. The development of Jones Beach has shown the public how this natural wealth can be used. Whatever the Interstate Sanitation Commission can do to check the tide of pollution will pay dividends of health and recreation for this and future generations.

Editorial from Sea Cliff, N. Y., News, July 30, 1937.

HOPE REVIVES

Pure water along the North Shore of Long Island is a matter of great importance. Having struggled with Hempstead Harbor for the past seven years and despaired upon various occasions, it was positively inspiring to feel that Sea Cliff was having part in a tremendous program. We listened intently to testimony and resolutions presented to the Interstate Sanitation Commission at Huntington Wednesday.

The beaches in the area between the city line and Port Jefferson are within motoring distance of millions of persons recreation bent. At this moment 750,000 bushels of oysters are languishing in the Nissequogue River under State ban for human food; this might mean an annual revenue of \$250,000 if the waters had not been polluted. The Coast Guard reported that in one year, during daylight hours when visibility was good 222,497 craft had entered an area between Lloyd and Eaton Necks and 95 percent of them on pleasure bent. Experts believe that the degree of pollution has even now begun to subside and that certain clean-water-loving fish are returning.

it was reported that it is not impossible to lift a ban once established against the taking of shellfish for human consumption. Every official representative offered complete cooperation to the Commission—which was just as well since this Commission has real authority to enforce its mandates on the degree of treatment of all pollution entering the waters under its jurisdiction.

The most gratifying feature of the situation is the awakening of public opinion on the subject of water pollution. There are enough laws now in force to cover the situation, but without municipal and personal cooperation, to restore the clarity and purity of the waters would be hopeless.

Editorials from Brooklyn, N. Y., Eagle of August 20, 1937.

CLEARING WAY FOR NEW BEACHES

If Brooklyn, and through it the whole city, is to get the full use, for both bathing and boating, of the waters that lave its shores, it will have to be done through the exercise of great patience and a careful following out of suggestions laid before the Interstate Sanitation Commission at a recent meeting in Canarsie. In fact, the meeting might well be regarded as the start of a movement for the restoration to the city of some of the benefits of the ocean by which it is practically surrounded—benefits that were lost years ago through indifference to rapidly increasing population and pollution of waters which that population might now be enjoying. The beginning of the restoration lies in the existence of the commission itself, for it was established to make an investigation of the waters surrounding New York City and northern New Jersey and ascertain to what extent there has been an elimination of sewage pollution and in what areas.

Much depends upon the results of this investigation, especially in Brooklyn, for as Park Commissioner Moses has pointed out to the commission, the complete development of such projects as the waterfront parks at Canarsie, at Dyker Beach and others must wait some time before the water in these particular areas is suitable for bathing. The Park Commissioner's suggestion that all the tidal waters of the city south of the Narrows on the Brooklyn, Queens and Richmond shores be designated as Class A, and so call for the maintenance of a high standard of purity, is a practical one.

The demand for additional bathing beaches has become more pressing with each successive Summer season. Those already used are overcrowded, so much so that many venture elsewhere to bathe in waters still clean. Sewage disposal plans are going forward, though the work is necessarily slow. It is a herculean task, but with patience and diligence it can be accomplished by pushing ahead on the lines already laid out.

From New York, N. Y., Daily News of August 21, 1937.

MOSES WANTS MORE PARKS

Park Commissioner Robert Moses advises the Interstate Sanitation Commission:

The other two proposed beaches at Canarsie and Dyker Beach are badly needed, as evidenced by the numbers of people who go swimming at and near these locations in spite of the highly polluted waters. We realize that it may be some time before the waters adjacent to these two beaches will be suitable for bathing, if present schedules for sewage disposal are carried out.

We'd like to see the city take this hint to heart and hurry up the sewage disposal schedules so that these two proposed large beach parks can get under way. If Mr. Moses says there should be a park at such-and-such a place, we feel that there should be.

Moses was once accused by Mayor LaGuardia of being a genius, with all the temperament that frequently goes with genius. People who come in contact with him confirm this charge. But that is for those people—the Mayor, Col. Somervell, etc.—to worry about. Those of us who merely stand off and watch the doings of city officials know that Moses has been the most energetic and constructive Park Commissioner New York City has had in decades, if not generations.

From Newark, N. J., News of August 23, 1937.

THE GOOD WORK GOES ON

New York wants to develop waterfront parks at Canarsie and at Dyker Beach, Brooklyn, but finds "the water isn't suitable," which is to say it is polluted. This is an old story to New York and New Jersey. The Interstate Sanitation Commission has heard it before and will hear a lot more of the same before it concludes its survey of tidal waters around New York and Northern New Jersey. To clean up completely the sources of contamination in this region is going to take time and money. It has been a long discouraging fight, but happily gains have been made and more will be made as the public becomes increasingly cognizant of what man has done to our priceless resources.

Parks Commissioner Moses, long active in the fight to salvage recreational facilities, has cited the progress made by New York in recent years, and it has been substantial. New Jersey got results and cleaner beaches through the litigations which suppressed New York's garbage scows. Since then our relations with our neighbor have been more amicable, as shown by the spirit of co-operation which led to the creation of the Sanitation Commission, which indicates a mutual desire to correct an intolerable condition.

The demand for Class A waters, devoted exclusively to recreation, as contrasted to Class B, which

are used for industrial pursuits, grows as population increases. As Commissioner Moses assured the Sanitation Commission, the population increase in the metropolitan district is incessant. Aside from the healthful benefits to be derived from clean waters there is the financial aspect. As a state that derives millions from recreation, we know the dividends that will follow development of our natural facilities to their fullest.

Editorial from the Brooklyn, N. Y., Eagle of September 11, 1937.

ZONING BOROUGH WATERS

Differences of opinion as to the degree of purity to be attained by the East River, as developed at the Interstate Sanitation Commission's hearing of testimony on the classification of waters off Brooklyn and Queens shores from the Narrows to Sanford Point, near Hell Gate, appear to have left the original general purification plan in a somewhat uncertain state. Though Park Commissioner Robert Moses differs in his view from that of the engineers of the Board of Estimate by recommending that the commission designate the East River from Governor's Island to Hell Gate as Class B and the rest of the waters under consideration as Class A, it is apparent that there may be common ground for eventual agreement in the fact that all the officials concerned favor greater cleanliness than now exists. Class A, as has already been pointed out, would mean a zone devoted essentially to swimming and other forms of recreation, whereas Class B would permit general commercial use, though with insistence on some standards of purity.

There is no question that, as Commissioner Moses argues, the waters of Flushing Bay boat basin and the proposed bathing facilities at Dyker Beach Park on Gravesend Bay, urged as a Class A area, would be affected, through tides and currents, by the polluted water in the East River and would therefore require a reasonable degree of purity in the latter. The problem will undoubtedly be that of attaining that reasonable degree. The protection of shore parks present and to come, and the sanitary preservation of the city's shore fronts for the benefit of the public are the main consideration in one of the most important projects yet undertaken in the metropolitan area.

Editorial from Long Island Press, Jamaica, New York, November 6, 1937.

POLLUTED WATERS CAN BE PURIFIED

Buried in the Day's News is a most encouraging report for those who realize the dangers of destroying Long Island's natural waters and harbors by pollution.

The Interstate Sanitation Commission, composed of public spirited citizens of New York and New Jersey who serve without pay, has just estimated that, with governmental cooperation, pollution in the

waters around Long Island can be eliminated within 10 years.

That pollution will not be eliminated for a decade, even with care, shows how dangerous the situation was when the commission was appointed to alleviate it.

That pollution can be eliminated, even in 10 years, is an encouraging result of this commission's study.

Meeting the problem will call for intensive sewage treatment throughout the metropolitan area, not only

in New York and New Jersey but also in Connecticut. Connecticut is not represented in the commission but there are indications that it will cooperate with its neighbors. It should be represented because all three states face a common danger.

With the commission studying causes and suggesting remedies, it now becomes the duty of municipalities to provide the plants necessary to treat sewage so that it may be emptied without impairing a priceless natural resource.