IN THE

Supreme Court of the United States

OCTOBER TERM, 1959.

STATES OF WISCONSIN, MINNESOTA, OHIO AND PENNSYLVANIA,
Complainants,

vs.

STATE OF ILLINOIS AND THE SANITARY DISTRICT OF CHICAGO.

STATES OF MISSOURI, KENTUCKY, TENNESSEE, LOUISIANA, MISSISSIPPI, AND ARKANSAS,
Intervening Defendants.

STATE OF MICHIGAN,
Complainant,

vs.

STATE OF ILLINOIS AND THE SANITARY DISTRICT OF CHICAGO.

STATE OF NEW YORK,
Complainant,

vs.

STATE OF ILLINOIS AND THE SANITARY DISTRICT OF CHICAGO.

ANSWER OF THE DEFENDANTS STATE OF ILLINOIS AND THE METROPOLITAN SANITARY DISTRICT OF GREATER CHICAGO TO THE AMENDED APPLICATION OF COMPLAINANTS FOR A REOPENING OF THE DECREE OF APRIL 21, 1930.

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Complainants,

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STATE OF ILLINOIS AND THE SANITARY DISTRICT OF CHICAGO.

STATES OF MISSOURI, KENTUCKY, TENNESSEE, LOUISIANA, MISSISSIPPI, AND ARKANSAS,

Intervening Defendants.

No. 3, Original.

STATE OF MICHIGAN,

Complainant,

vs.

STATE OF ILLINOIS AND THE SANITARY DISTRICT OF CHICAGO.

No. 4, Original.

STATE OF NEW YORK,

Complainant,

vs.

STATE OF ILLINOIS AND THE SANITARY DISTRICT OF CHICAGO.

ANSWER OF THE DEFENDANTS STATE OF ILLINOIS AND THE METROPOLITAN SANITARY DISTRICT OF GREATER CHICAGO TO THE AMENDED APPLICATION OF COMPLAINANTS FOR A REOPENING OF THE DECREE OF APRIL 21, 1930.

The State of Illinois and The Metropolitan Sanitary District of Greater Chicago (formerly The Sanitary District of Chicago and referred to herein at times as "the District"), pursuant to a direction of the Honorable Albert B. Maris, Special Master, answer the Amended Application of the Complainants for a reopening of the Decree herein of April 21, 1930 as follows:

I.

The allegations of section I are admitted except the allegation that this Court in its decision of January 14, 1929 (278 U. S. 367) referred these cases back to the Special Master to determine the practical measures needed to dispose of the sewage of the Chicago area without diversion, which is denied. These defendants aver that this Court re-referred the cases for the purpose of determining "a point where it [the diversion] rests on a legal basis" (p. 420). This Court, in the said decision, stated (p. 418): "It may be that some flow from the Lake is necessary to keep up navigation in the Chicago River, which really is part of the Port of Chicago * * *" These defendants further aver that the annual average diversion of 1500 c.f.s., in addition to domestic pumpage, on and after December 31, 1938, as allowed by the decree of April 21, 1930, was found by the Special Master, Charles E. Hughes, to be necessary in the interests and protection of navigation in the Chicago River as a part of the Port of Chicago (Report of the Special Master on Re-reference, pp. 126-127); that at the time of the entry of the decree herein on April 21, 1930, the Illinois Waterway, now a navigational link between Lake Michigan and the Mississippi River, had not been completed; that Congress, on July 3, 1930, passed the Rivers and Harbors Act, 46 Stat. 918, 929, which provided for the completion of the Illinois Waterway; that the

Rivers and Harbors Act of 1930 was the culmination of a series of Acts which made the Illinois Waterway, from the Port of Chicago to the Mississippi River, a federal navigation project; that after its completion with federal funds, the Illinois Waterway was opened for navigation on March 1, 1933; that the Rivers and Harbors Act of 1930 provided that the withdrawal of water from Lake Michigan allowed by the decree of April 21, 1930 "is hereby authorized to be used for the navigation of said waterway," and that "as soon as practicable after the Illinois waterway shall have been completed in accordance with this Act, the Secretary of War shall cause a study of the amount of water that will be required as an average annual flow to meet the needs of a commercially useful waterway * * *"; and that said study authorized by said Act has not been completed.

II.

The allegations of paragraphs A and B of section II are admitted, subject to the following corrections:

At the time of the entry of the decree in 1930 the area of the District, including Chicago and adjoining municipalities, was 422 square miles. The total area of the District at the time of the filing of the Amended Application in 1958 was 877 square miles. Because of statutory disconnections, the area of the District is now 869 square miles. The District now includes the City of Chicago and 112 adjoining municipalities.

The allegation in paragraph C of section II is denied.

III.

These defendants admit the allegations of paragraphs A, B, and E and deny the allegation of paragraph C of section III. The sewer system in the City of Chicago and throughout most of the area served by the District is known as the "combined" type, in which sewage and storm water run-off are not separated. According to the United States Public Health Service, the only large cities on the Great Lakes with completely separate sewer systems *i.e.*, separate sanitary and storm sewers, are Erie, Pennsylvania, and Rochester, New York. The District now requires, and has required for many years last past, the installation of separate storm and sanitary sewers in new communities within the area of the District. Since the inception of this litigation, the complainants have never proposed or advanced any program for the construction of a separate sewer system for Chicago, but on the contrary have acquiesced at all times in the past in the continuation of the "combined" sewer system.

The sewage treatment plants of the District represent the highest standards in modern sanitary engineering. Substantial extensions and additions have been made and are being made to the plants and other sewage disposal facilities constructed pursuant to the 1930 decree. Studies for improvements and necessary expansion are carried on continuously by the District. The total amount of pollution (BOD) carried into the waterways, resulting from storm water and sanitary sewage overflowing with the storm water, does not exceed on an annual average 3 per cent of the total tributary pollution of storm run-off and sanitary sewage. Heavy rains cause raw sewage to enter the Chicago Drainage Canal between 20 to 50 times a year when the total volume of sewage and storm water exceeds the capacity of the sewage treatment

plants which is approximately twice the capacity needed for dry weather flow. The capacity for the interceptor sewers leading to the treatment plants is at least twice, and in most cases several times, the average dry weather flow. Steady progress has been made and is continuing to be made by the District in reducing the amount of industrial wastes which are discharged untreated into the Canal.

As to the allegations of paragraph D, these defendants admit that as the area of the District continues to increase in population, commercial establishments and industrial plants, the quantity of sewage and industrial waste will increase, but deny that the Chicago River will become more polluted than was foreseen by this Court at the time of the entry of its decree in 1930.

IV.

These defendants admit that the table contained in section IV showing the degree of purification of sewage is substantially correct, but deny that the operating efficiency of the sewage disposal plants of the District has dropped or declined. The degree of sewage purification attained by the District in the last two years, as shown by the reduction in biochemical oxygen demand (BOD) and the amount of solids removed, was as follows:

Year	Sewage Treated Million Gallons Per Day	Per Cent BOD Removed	Solids, Tons Per Day Raw Sewage	Per Cent Solids Removal
1958	1103.0	90.6	836.2	87.6
1959 (through June)..	1227.7	90.5	881.2	85.5

The drop in reduction of BOD in the year 1957, as alleged in section IV, was due to construction interferences, unrelated to plant efficiency, which these defendants believe to be non-recurring.

The degree of purification that has been achieved by

the District has met the average which the Special Master and this Court in 1930 found to be reasonably attainable. The technique developed and used by the District, known as the activated sludge process, has become the leading process used in sewage disposal. These defendants further state that witnesses of the District who appeared before the Special Master on Re-reference in 1929 outlined a program of sewage treatment works construction, but deny that the witnesses testified that the sewage would be treated to a higher degree of purification than that which has been attained. The complainants, on the re-reference in 1929, did not propose a program of treatment materially different from the one presented by the District. Except as herein admitted, the allegations of section IV are denied.

V.

These defendants deny the allegation of section V that the diversion from Lake Michigan allowed by the decree of April 21, 1930, in addition to domestic pumpage, was for the purpose of maintaining navigation in the Port of Chicago and the connecting Illinois waterway, and aver that the diversion was allowed not for maintaining navigation in the Illinois waterway, which was then non-existent, but for navigation needs of the Chicago River as a part of the Port of Chicago. These defendants also deny that the water withdrawn from Lake Michigan for domestic pumpage will double in 17 years; deny that the amount of water withdrawn from Lake Michigan is excessive; and deny that extensions of domestic pumpage to industrial plants unlawfully injures the complainants.

Further answering section V, these defendants aver that the total amounts of water withdrawn from Lake Michigan as direct diversion and domestic pumpage in the years 1939, 1954, and 1956, as alleged, do not fairly represent

the rate of increase in the amount of water withdrawn from the Lake for domestic pumpage; that the amount of domestic pumpage in 1930 was 1700 c.f.s., and despite the growth in population and industry was only 1760 c.f.s. in 1958; and that according to reliable estimates, the amount of water which will be taken from Lake Michigan in 1980 by Chicago and all municipalities then to be served by it will be approximately 2137 c.f.s.

Further answering the allegations of section V, these defendants deny that as the population of greater Chicago increases and as the industrial development in the area served by the District may expand, the volume of water to be withdrawn from Lake Michigan for domestic pumpage will increase beyond the limits that were estimated at the time this Court entered its decree in 1930. On the contrary, these defendants aver that the rate of increase in water withdrawn from Lake Michigan for domestic pumpage since 1930 has been less and on the basis of experience will be less in the future than was anticipated at the time of the entry of the decree in 1930.

VI.

These defendants deny the allegations of section VI except that they admit that additional industrial plants have been established within the District as enlarged since the entry of the decree in 1930.

VII.

The allegation contained in section VII is denied.

VIII.

These defendants admit the allegations of the first paragraph of section VIII. Further answering this section, these defendants deny the allegation that the withdrawal

of the water from the Great Lakes for domestic pumpage in the Chicago metropolitan area and its discharge into the Mississippi Valley watershed is in violation of the rights of the complainants; deny that the diversion of waters of the Great Lakes system is causing extensive, substantial or continuing damages to the complainants or their peoples; and further deny that such withdrawal of water and its diversion to the Mississippi watershed is not necessary for the disposal of the sewage of the Chicago area or for the protection of the water supply of the Chicago area and the health of the people of the Chicago area. These defendants further deny that other Great Lakes communities return to the lake or connecting channels, after use, water taken therefrom, without any injury to the health of the people using such water, or without causing any nuisance conditions in the lake or other watercourses.

Further answering section VIII, these defendants aver that the experience of smaller communities on the Great Lakes does not furnish a criterion for the Chicago area.

IX.

The allegation contained in section IX is denied.

X.

These defendants deny the allegations of section X that damage has been and is being caused to complainants and to harbor improvements by defendants' action in diverting the waters of the Great Lakes-St. Lawrence system as domestic pumpage through the Sanitary District Canal. The allegations relating to (1) the number of harbors on the Great Lakes and connecting channels and the extent to which the harbors have been improved, and (2) the stages of construction of hydro-electric power plants on the Niagara and St. Lawrence Rivers, are ad-

mitted. These defendants are without knowledge or information sufficiently to form a belief as to the truth of the averments with respect to (1) port development expenditures for the Great Lakes ports for the 12-year period 1946-1957, (2) the dependency of the ports of Minnesota and Wisconsin upon navigable depths of water in the channels and harbors of the lower Great Lakes, and (3) costs of the hydro-electric power projects on the Niagara and St. Lawrence Rivers. All other averments of section X are denied.

Further answering the allegations of section X, these defendants aver that the losses alleged are predicated upon theoretical computations which do not represent actual losses susceptible of proof; that any damage which has occurred or will occur because of the withdrawal and diversion of water from Lake Michigan was fully foreseen and considered by the Court at the time of the entry of the decree in 1930, except the alleged damage and losses to the State of New York in the generation of hydro-electric power at power sites on the Niagara and St. Lawrence Rivers. As to such alleged losses relating to power projects, these defendants aver that such power projects were developed and financed on the basis of existing water levels, as affected by the decree of 1930 and the Rivers and Harbors Act of July 3, 1930, 46 Stat. 918, 929; that the water levels, as reduced by the diversion at Chicago, were taken as normal for purposes of the projects; and that the licenses issued to the Power Authority of New York for the construction and operation of the projects applied only to the water remaining after the authorized withdrawal and diversion of water from Lake Michigan at Chicago.

XII.

The allegations of section XII are denied.

XIII.

These defendants deny the allegations of section XIII.

Further answering section XIII, these defendants aver that water withdrawn from Lake Michigan as domestic pumpage, in addition to the annual average 1500 c.f.s. direct diversion, has served and will continue to serve the interests of navigation in the Illinois Waterway, as well as industrial plants located on the waterway which were constructed in reliance upon a continuation of a flow of water in quantity and velocity as authorized by the decree of April 21, 1930 and the Rivers and Harbors Act of July 3, 1930.

XIV.

These defendants admit that in 1952 the District achieved up to 93.6% BOD removal in its treatment of sewage and wastes collected and that in some circumstances it is able to attain that percentage of BOD removal. These defendants deny the remaining allegations of section XIV, and in particular the allegations that it is possible to return to Lake Michigan the effluent from the District sewage treatment plants without endangering the domestic water supply of the City of Chicago and other municipalities; that it is feasible to return such effluent to the Lake; and that the municipalities lying along the Great Lakes and receiving their domestic water supply therefrom return their "domestic pumpage" to the waters of the Lake without experiencing any danger or hazard to their domestic water supply or public health.

Further answering section XIV, these defendants aver that the City of Chicago does not have the advantage of lake currents enjoyed by the other municipalities referred to by complainants for the dispersion of wastes, and that

because of Chicago's location near the foot of Lake Michigan the return to the Lake of sewage effluent by the District would create a public health hazard far greater than that existing in such other municipalities.

XV.

Further answering the Amended Application, these defendants aver that no facts have been alleged showing that the decree of April 21, 1930 should be modified as prayed for by complainants; that the right to use water for drinking, sanitary, and domestic purposes has been judicially, and by treaty, declared to be the highest use of water, taking precedence over all other uses; that the right of these defendants to discharge water, so used, into the Sanitary Canal and a Congressionally established waterway has been adjudicated by this Court; that to carry out the provisions of the 1930 decree these defendants completed construction of vast sewage treatment projects, consisting of sewage treatment plants, intercepting sewers, and sewage pumping stations, at a cost in excess of 316 million dollars; that 109 million dollars had previously been spent for the construction of sewers which discharged the sewage effluent into the Sanitary Canal; that if the sewage effluent were to be discharged into Lake Michigan, the defendants' sewage disposal facilities would have to be rearranged, and new pumping stations, works and tunnels, extending miles out into Lake Michigan, would have to be constructed at a tremendous cost, estimated by competent engineers to total from 250 to 300 million dollars, and to entail annual operating costs of more than 2 million dollars and debt service charges of more than 15 million dollars annually for a period of thirty years; and that the ultimate effect of such vast and burdensome expenditures would be to pollute Chicago's water supply, endanger the public health, and destroy the recreational value of Chicago's lake front.

These defendants further aver that since 1945 water which would otherwise flow into Hudson Bay has been diverted into Lake Superior and the Great Lakes system from the Albany River Basin in Canada at the rate of 5,000 cubic feet a second in the interests of Canadian power projects; that this diversion increases the water supply to all the Great Lakes; that the net effect of the total diversion at Chicago and the diversion into Lake Superior from the Albany River Basin is to raise the levels of Lakes Michigan and Huron about 0.14 foot and Lakes Erie and Ontario about 0.09 foot; that any lowering of the levels of the Great Lakes by the diversion at Chicago is more than offset by the diversion from the Albany River Basin into Lake Superior; and that the levels of the Great Lakes are now higher than their proper and normal levels.

WHEREFORE, these defendants ask that the prayer of the Amended Application as amended be denied and the Amended Application be dismissed, and that this Court grant to these defendants such affirmative relief as may be warranted by the evidence to be presented and assess the costs of this proceeding against the complainants.

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