

**STATE OF WISCONSIN ET AL. v. STATE OF ILLINOIS AND  
SANITARY DISTRICT OF CHICAGO ET AL.; STATE OF  
MICHIGAN v. SAME; STATE OF NEW YORK v. SAME**

**No. 7; No. 11; No. 12, Original**

**SUPREME COURT OF THE UNITED STATES**

**278 U.S. 367; 49 S. Ct. 163; 73 L. Ed. 426; 1929 U.S. LEXIS  
324**

**Argued April 23, 24, 1928  
January 14, 1929**

Taft, Holmes, Van Devanter, McReynolds, Brandeis, Sutherland, Butler, Sanford,  
Stone

Mr. CHIEF JUSTICE TAFT delivered the opinion of the Court.

These are amended bills by the States of Wisconsin, Minnesota, Michigan, Ohio, Pennsylvania and New York, praying for an injunction against the State of Illinois and the Sanitary District of Chicago from continuing to withdraw 8,500 cubic feet of water a second from Lake Michigan at Chicago.

The Court referred the cause to Charles Evans Hughes as a Special Master, with authority to take the evidence, and to report the same to the Court with his findings of fact, conclusions of law and recommendations for a decree, all to be subject to approval or other disposal by the Court. The Master gave full hearings and filed and submitted his report November 23, 1927, to which the complainants duly lodged exceptions, which have been elaborately argued.

When the first of these bills was filed, there was pending in this Court an appeal by the Sanitary District of Chicago from a decree granted at the suit of the United States by the United States District Court for the Northern District of Illinois, against a diversion from the Lake in excess of 250,000 cubic feet per minute, or 4,167 cubic feet per second. This amount had been permitted by the Secretary of War. In January, 1925, this Court affirmed the [\*400] decree, without prejudice to the granting of a further permit by the Secretary of War according to law. 266 U.S. 405. On March 3, 1925, the Secretary of War after that decree enlarged the permit for a diversion not to exceed an annual average of 8,500 cubic feet per second, upon certain conditions hereafter to be noted.

The amended bills herein averred that the Chicago diversion had lowered the levels of Lakes Michigan, Huron, Erie and Ontario, their connecting waterways, and of the St. Lawrence River above tide-water, not less than six inches, to the serious injury of the complainant States, their citizens and property owners; that the acts of the defendants had never been authorized by Congress but were violations of the rights of the complainant States and their people; that the withdrawals of the water from Lake Michigan were for the purpose of taking care of the sewage of Chicago and were not justified by any control Congress had attempted to exercise or could exercise in interstate commerce over the waters of Lake Michigan; and that the withdrawals were in palpable violation of the Act of Congress of March 3, 1899. The bills prayed that the defendants be enjoined from permanently diverting water from Lake Michigan or from dumping or draining sewage into its waterways which would render them unsanitary or obstruct the people of the complainant States in navigating them.

The State of Illinois filed a demurrer to the bills and the Sanitary District of Chicago an answer, which included a motion to dismiss. The States of Missouri, Kentucky, Tennessee and Louisiana, by leave of Court, became intervening co-defendants, on the same side as Illinois, and moved to dismiss the bills. The demurrer of Illinois was overruled and the motions to dismiss were denied, without prejudice. Thereupon the intervening defendants and the defendants, the Sanitary District and the State of Illinois, filed their respective answers. The States of [\*401] Mississippi and Arkansas were also permitted to intervene as defendants, and adopted the answers of the other interveners. The answers of the defendants denied the injuries alleged, and averred that authority was given for the diversion under the acts of the Legislature of Illinois and under acts of Congress and permits of the Secretary of War authorized by Congress in the regulation of interstate commerce. All the answers stressed the point that the diversion of water from Lake Michigan improved the navigation of the Mississippi River and was an aid to the commerce of the Mississippi Valley and sought the preservation of this aid. They also set up the defense of laches, acquiescence and estoppel, on the ground that the purposes of the canal and the diversion were known to the people and the officials of the complainant States, and that no protest or complaint had been made in their behalf prior to the filing of the original bills herein.

The Master has made a comprehensive review [\*\*166] of the evidence before him in regard to the history of the canal, the extent and effect of the diversion, the action [\*\*\*428] of the State and Federal Governments, the plans for the disposal of the sewage and waste of Chicago and the other territory within the Sanitary District, as well as the character and feasibility of works proposed as a means of compensating for the lowering of lake levels. From this review we shall take what will assist us in the consideration of the issues deemed necessary to be considered on the exceptions to the report.

We shall first consider in brief the parts taken by Congress and the State of Illinois and their respective agencies in the construction of the Sanitary District Canal and the creation of the Lake Michigan diversion.

By the Act of March 30, 1822, c. 14; 3 Stat. 659, Congress authorized Illinois to survey and mark, through the public lands of the United States, the route of a canal connecting the Illinois River with Lake Michigan, and [\*402] granted certain lands in aid of the project. A further land grant was made in 1827. The canal was completed in 1848. The canal crossed the continental divide between the Chicago and Des Plaines Rivers, on a summit level eight feet above the Lake, and then paralleled the Des Plaines River and the Upper Illinois River to La Salle, Illinois, where it entered the latter stream. The summit of the canal was supplied with water by pumps located in a plant on the Chicago River. Originally, only enough water was pumped to answer the needs of navigation in the canal, but thereafter, in 1861, the Legislature provided for improvement in the canal by excavation and a larger flow of water from Lake Michigan.

Before 1865, the Chicago River, being a sluggish stream in its lower reaches, had become so offensive because of receiving the sewage of the rapidly growing city, that for its immediate relief the municipal authorities and the canal commissioners agreed to pump water from the river in excess of the needs of navigation. By 1872 the summit level of the canal had been lowered, and it was hoped that this would result in a permanent flow of lake water through the South Branch of the Chicago River, sufficient to keep it in good condition, but the plan failed, and the canal again became grossly polluted.

In 1881, the Illinois Legislature passed a resolution authorizing the installation of pumps at the northern terminus of the canal, with a capacity of not less than 1,000 cubic feet a second, to draw water from Lake Michigan through the Chicago River and the canal. Pumps were installed and pumping was begun in 1883. For a few years this afforded sufficient dilution in the canal because of the high stage of Lake Michigan, but in 1886 the lake level began to fall, and continued to fall until 1891 when it was two feet lower than when the pumps were installed. Their capacity was thus reduced to a little more than 600 cubic feet a second. The nuisance [\*403] along the canal continued to grow. The Drainage and Water Supply Commission of the State recommended, as the most economical method for meeting the requirement, a discharge into the Des Plaines River through a canal across the continental divide, providing a waterway of such dimensions as would furnish ample dilution. The Commission pointed out that the proposed canal would, from its necessary dimensions and its regular discharge produce a magnificent waterway between Chicago and the Mississippi River, suitable for navigation of boats having as much as 2,000 tons burden, and would give also large water power of great commercial value to the State.

The Sanitary District was organized under the Illinois Act of 1889. It was completed in 1890. It embraced an area of 185 square miles. By later acts it was increased to approximately 438 square miles, extending from the Illinois State line on the south and east to the northern boundary of Cook County on the north, with about 34 miles of frontage on Lake Michigan, embracing the metropolitan area of Chicago, consisting of a total of fifty-four cities, towns and villages.

The main drainage canal was begun in 1892, and was opened in January, 1900. Since that time the flow of the Chicago River has been reversed -- that is, it has been made to flow away from Lake Michigan toward the Mississippi. As originally constructed the canal ended in a non-navigable tail-race. There was no lock at the southwestern end. But by the Act of May 14, 1903, the Illinois Legislature gave the Sanitary District the power to construct dams, water wheels, and other works appropriate to render available the power arising from the water passing through the main channel and any auxiliary channels thereafter constructed.

In 1908, the Constitution of Illinois was amended to authorize the legislature to provide for the construction of [\*404] a deep waterway or canal, from the water-power plant of the Sanitary District of Chicago, at or near Lockport, [\*\*\*429] to a point on the Illinois River at or near Utica, and to provide that this power might be leased for the benefit of the State treasury. Meantime, all the sewage in the drainage district, including Evanston, was turned into the main channel, and the water directly abstracted from Lake Michigan by the Sanitary District was increased from 2,541 cubic feet a second in 1900 to 5,751 in 1909, to 7,228 in 1916, to 6,888 cubic feet a second in 1926, not including pumpage.

The Sanitary District authorities have expended in the construction of works for sewage and the deep waterway canal \$ 109,021,613 including interest on bonds.

[\*\*167] In 1888, Congress directed the Secretary of War to make surveys for a channel improvement in the Illinois and Des Plaines Rivers. In 1892, Congress appropriated \$ 72,000 to complete the improvement of the harbor at Chicago, and again \$ 25,000 in 1894. Three engineers appointed by the Secretary of War reported to him that a diversion of 10,000 cubic feet a second through the Sanitary and Ship Canal would lower the levels of the Lakes, except Lake Superior. In 1896, Congress appropriated money for dredging the Chicago River. The Sanitary District in that year asked for a permit from the Secretary of War to enlarge the cross section of the Chicago River, and announced that the work had progressed so far that this must be done to make available the artificial channel under construction from Robey Street, Chicago, to Lockport, twenty-eight miles distant. The Secretary of War granted the permit, but said that this authority was not to be interpreted as an approval of the plans of the Sanitary District of Chicago to introduce a current into the Chicago River; that the United States should not be put to any expense, and that the authority was to expire by limitation in two years. Other permits relating to the same [\*405] subject were issued by the same officer in 1897, 1898, and twice

in 1899. The Act of Congress of 1899 amplified the provisions of an earlier Act of 1890 looking to the regulation prevention, and removal by Federal authority of obstructions to navigation and alteration of capacity of the navigable waters of the United States by enacting Sections 9 and 10 thereof.

Other permits were allowed by the Secretary of War -- one on December 5, 1901, allowing a diversion of 250,000 cubic feet per minute throughout the full 24 hours of each day. And in another instance on January 17, 1903, a diversion of 350,000 cubic feet per minute until March 31, 1903, was permitted, in order to carry off the accumulations of sewage deposit lining the shores along the city, with the provision that after that, the flow should be reduced to 250,000 cubic feet per minute as required by the permit of December, 1901. The Board of Engineers in 1905 reported to Congress that the effect upon the level of Lake Michigan of withdrawing 10,000 cubic feet per second for an indefinite period had been the subject of elaborate investigation and that the conclusion reached was that the final effect would be to lower the level of the Lake six inches.

An application for the flow of more water through the Calumet Sag Channel was declined by the Chief of Engineers, and was refused by the Secretary of War in March, 1907, and as the Sanitary District apparently intended to proceed with the work for which a permit had been refused, the United States brought suit in 1908 to prevent its construction and prevent the increase of the flow. Another application was refused by the Secretary of War in January, 1913, and there seems to have been another denied later.

A second bill to enjoin the Sanitary District from a diversion of more than 250,000 cubic feet per minute or its [\*406] equivalent 4,167 cubic feet a second of water from Lake Michigan was filed and was consolidated with the earlier suit, and after a long delay of six or seven years an oral opinion was given by Judge Landis of the United States District Court for the Northern District of Illinois in favor of the Government. A decree not having been entered before Judge Landis resigned, a decree was entered by Judge Carpenter in the case which was affirmed by this Court in January, 1925. *Sanitary District of Chicago v. United States*, 266 U.S. 405.

This Court's decree provided that the defendant, the Sanitary District of Chicago, its agents, and all other persons acting or claiming or assuming to act under its authority, should be enjoined from diverting or abstracting any waters from Lake Michigan over and above or in excess of 250,000 cubic feet per minute, to go into effect in sixty days, without prejudice to any permit that might be issued by the Secretary of War according to law.

Immediately after this decision, the Sanitary District applied to the Secretary of War for permission to divert 10,000 cubic feet a second. The exigency was [\*\*\*430] set out in the petition. The Secretary of War then issued a permit on March 3, 1925, which recited that the instrument did not give any property rights ei-

ther in real estate or material, or any exclusive privileges; and that it did not authorize any injury to private property or invasion of private rights, or any infringement of Federal, State or local laws or regulations, or obviate the necessity of obtaining the State's assent to the work authorized. It certified that upon the recommendation of the Chief of Engineers, the Secretary of War, under Section 10 of the Act of 1899, authorized the Sanitary District to divert from Lake Michigan an amount of water not to exceed an annual average of 8,500 cubic feet per second, the instantaneous maximum not to exceed 11,000 cubic feet per second, upon certain conditions.

[\*407] The conditions of the permit require the City of Chicago to take immediate steps to carry out sewage treatment by artificial processes, so that before the expiration of the permit they should provide the equivalent of 100% treatment of the sewage of 1,200,000 people, or one-third of the population of the city, and that this should be done under supervision of the U.S. District Engineer at Chicago, the permit to be revoked if the conditions were not complied with, and [**\*\*168**] the permit to cease unless renewed on December 31, 1929. In granting the permit, the Secretary of War expressed the opinion that steps should be taken to complete the entire work of providing for disposal of all the sewage in ten years. Colonel Schultz, U.S. District Engineer at Chicago, reported that the conditions of the March 3, 1925, permit have been complied with, and the Master confirms this in his report.

In providing for the improvement of the channel of the Illinois River in the Act of January 21, 1927, c. 47; 44 Stat. 1013, Congress declared that nothing in the Act should be construed as authority for any diversion from Lake Michigan.

The Master's findings on the subject of injury to the complainants are in effect as follows:

The diversion which has taken place through the Chicago Drainage Canal has been substantially equivalent to a diversion of about 8,500 cubic feet a second for a period of time sufficient to cause, and it has caused, the lowering of the mean levels of the Lakes and the connecting waterways, as follows: Lakes Michigan and Huron approximately 6 inches; Lakes Erie and Ontario approximately 5 inches; and of the connecting rivers, bays and harbors to the same extent respectively. A diversion of an additional 1,500 cubic feet per second, or a total diversion of 10,000 cubic feet a second would cause an additional lowering in Lakes Michigan and Huron of about one inch, and in Lakes Erie and Ontario a little less than one inch, with [**\*408**] a corresponding additional lowering in the connecting waterways. The Master also finds that if the diversion at Chicago were ended, assuming that other diversions remained the same, the mean levels of the lakes and rivers affected by the Chicago drainage would be raised in the course of several years (about 5 years in the case of Lakes Michigan and Huron, and about one year in the case of Lakes Erie and Ontario) to the same extent as they had been lowered, respectively, by that diversion.

The Master finds that the damage due to the diversion at Chicago relates to navigation and commercial interests, to structures, to the convenience of summer resorts, to fishing and hunting grounds, to public parks and other enterprises, and to riparian property generally, but does not report that injury to agriculture is established. He says that the Great Lakes and their connecting channels form a natural highway for transportation, having a water surface of over 95,000 square miles, and a shore line of 8,300 miles, extending from Duluth-Superior, and from Chicago and Gary, to Montreal, at the head of deep-draft ocean navigation on the St. Lawrence; that there are approximately 400 harbors on the Great Lakes and connecting channels, of which about 100 have been improved by the Federal Government; that the latter improvements consist in the excavation and maintenance of channels from deep water in the lakes to the harbor entrances; that inner or local harbors are located inside of the Federal channels, and the depths in the inner harbors have been obtained and are maintained at local expense; that inner harbors are necessary to afford practical navigation; that extensive and expensive loading, unloading and other terminal facilities have been constructed in these various ports within the territory of the complainant States, on the Great Lakes, at local expense.

The Master's report says that the water-borne traffic on the Great Lakes for the year 1923 consisted of 81,466,902,000 ton-miles of water haul, and that [\*\*\*431] consideration of [\*409] individual loaded boats and of their respective dimensions shows that, if water had been available for an additional six inches of draft, the fleet could have handled for the year 3,346,000 tons more than was actually transported, or to put the matter in another light, the season's business could have been done with the elimination from service of about 30 freighters of the 2,000-3,000-ton class, and that the lost tonnage of the total through business of the Lakes for 1923, incident to a 6-inch deficiency of draft, exceeded 4,000,000 tons, and that the average water-haul rate for the year was 88 cents per ton.

The great losses to which the complainant States and their citizens and their property owners have been subjected by the reductions of levels in the various Lakes and Rivers except Lake Superior are made apparent by these figures.

The pleadings question the jurisdiction of this Court and the sufficiency of the facts set forth in the bills to constitute a cause of action. These issues, although raised, are not pressed by the defendants and we concur with the Master in his conclusion that they are met completely by our previous decisions. *Missouri v. Illinois*, 180 U.S. 208; s. c. 200 U.S. 496; *Hans v. Louisiana*, 134 U.S. 1; *Sanitary District of Chicago v. United States*, 266 U.S. 405; *Kansas v. Colorado*, 185 U.S. 125; s. c. 206 U.S. 46; *New York v. New Jersey*, 256 U.S. 296; *Wyoming v. Colorado*, 259 U.S. 419; *North Dakota v. Minnesota*, 263 U.S. 365; *Pennsylvania v. West Vir-*

*ginia*, 262 U.S. 553, 623; 263 U.S. 350; *Georgia v. Tennessee Copper Co.*, 206 U.S. 230, 237.

[\*\*169] The controversies have taken a very wide range. The exact issue is whether the State of Illinois and the Sanitary District of Chicago by diverting 8,500 cubic feet from the waters of Lake Michigan have so injured the riparian and other rights of the complainant States bordering the Great Lakes and connecting streams by lowering their levels as [\*410] to justify an injunction to stop this diversion and thus restore the normal levels. Defendants assert that such a diversion is the result of Congressional action in the regulation of interstate commerce, that the injury, if any, resulting is *damnum absque injuria* to the complaining States. Those States reply that the regulation of interstate commerce under the Constitution does not authorize the transfer by Congress of any of the navigable capacity of the Great Lake System of Waters to the Mississippi basin, that is from one great watershed to another; second, that the transfer is contrary to the provision of the Constitution forbidding the preference of the ports of one State over those of another; and, third, that the injuries to the complainant States deprive them and their citizens and property owners of property without due process of law and of the natural advantages of their position, contrary to their sovereign rights as members of the Union. If one of these issues is decided in favor of the complaining States, it ends the case in their favor and the diversion must be enjoined. But in the view which we take respecting what actually has been done by Congress some of these objections need not be considered or passed upon.

The complainants, even apart from their constitutional objections, contend that Congress has not by statute or otherwise authorized the Lake Michigan diversion, that it is therefore illegal and that injuries by it to the complainant States and their people should be forbidden by decree of this Court. The diversion of 8,500 cubic feet a second is now maintained under a permit of the Secretary of War of March 3, 1925, acting under Section 10 of the Act of 1899, which it is contended by the complainants vests no such authority in him. They claim that the diversion is based on a purpose not to regulate navigation of the Lake, but merely to get rid of the sewage of Chicago, that this is a State purpose, not a Federal function, and should be enjoined to save the rights of complainants. If the view [\*411] urged by the complainants is right, the necessity for the use of the 8,500 cubic feet a second to save the health of the inhabitants of the Sanitary District will then present the problem of the power and discretion of a court of equity to moderate the strict and immediate rights of the parties complainant to a gradual one which will effect justice as rapidly as the situation [\*\*\*432] permits. The framing of the decree will then require the careful consideration of the Court.

The complainants contend that Congress has given no authority for the diversion from Lake Michigan, even if it has power so to do by way of regulating interstate commerce. The defendants rely for this authority on the permit of the Secretary of



War issued by him March 3, 1925, to the Sanitary District shortly after the decree of this Court in the *Sanitary District v. United States*, 266 U.S. 405. That decree forbade the diversion of the waters from Lake Michigan in excess of 4,167 cubic feet a second, but was made expressly without prejudice to any permit issued by the Secretary of War according to law. The complainants contend that the permit which allows a diversion of 8,500 cubic feet a second is not in regulation of interstate commerce, is not according to law and should be declared invalid.

The defendants base their claim of Congressional authority on § 10 of the Act of March 3, 1899, c. 425; 30 Stat. 1121, 1151 --

"That the creation of any obstruction not affirmatively authorized by Congress, to the navigable capacity of any of the waters of the United States is hereby prohibited; and it shall not be lawful to build or commence the building of any wharf, pier, dolphin, boom, weir, breakwater, bulkhead, jetty, or other structures in any port, roadstead, haven, harbor, canal, navigable river, or other water of the United States, outside established harbor lines, or where no harbor lines have been established, except on [\*412] plans recommended by the Chief of Engineers and authorized by the Secretary of War; and it shall not be lawful to excavate or fill, or in any manner to alter or modify the course, location, condition, or capacity of, any port, roadstead, haven, harbor, canal, lake, harbor of refuge, or inclosure within the limits of any breakwater, or of the channel of any navigable water of the United States, unless the work has been recommended by the Chief of Engineers and authorized by the Secretary of War prior to beginning the same."

The policy carried out in the Act of March 3, 1899, had been begun in the Act of September 19, 1890, c. 907; 26 Stat. 426, 454, 455. Sections 9 and 10 were the rearranged result of the provisions of Sections 7 and 10 of the Act of 1890. A new classification was made in Sections 9 and 10 of the Act of 1899, and substituted for Section 10 of the Act of 1890. The latter provided that the creation of any obstruction to navigable capacity was prohibited, unless "affirmatively authorized by law" and this was changed so as to read "affirmatively authorized by Congress." The change in the words of the first clause of Section 10 was intended to make mere State authorization inadequate. *Sanitary District v. United States*, 266 U.S. 405, 429; *United States v. Bellingham Bay Boom Co.*, [\*\*170] 176 U.S. 211. It was not intended to override the authority of the State to put its veto upon the placing of obstructing structures in navigable waters within a State and both State and Federal approval were made necessary in such case. *Cummings v. Chicago*, 188 U.S. 410. The words "affirmatively authorized by Congress" should be construed in the light of the administrative existences which prompted the delegation of authority in the succeeding clauses. Congress, having stated in Section 9 as to what particular struc-

tures its specific consent should be required, intended to leave to the Secretary of War, acting on the recommendation of the Chief of Engineers, the [\*413] determination of what should be approved and authorized in the classes of cases described in the second and third clauses of Section 10. If the section were construed to require a special authorization by Congress whenever in any aspect it might be considered that there was an obstruction to navigable capacity, none of the undertakings specifically provided for in the second and third clauses of Section 10 could safely be undertaken without a special authorization of Congress. We do not think this was intended. The Supreme Court of Maine in *Maine Water Co. v. Knickerbocker Steam Towage Co.*, 99 Me. 473, took the same general view in construction of the same section. It held that the broad words of the first clause of that section were not intended to limit the second and third clauses and that Congress's purpose was a direct prohibition of what was forbidden by them except when affirmatively approved by the Chief of Engineers and the Secretary of War. We concur in this view.

The true intent of the Act of Congress was that unreasonable obstructions to navigation and navigable capacity were to be prohibited, and in the cases described [\*\*\*433] in the second and third clauses of Section 10, the Secretary of War, acting on the recommendation of the Chief of Engineers, was authorized to determine what in the particular case constituted an unreasonable obstruction.

This construction of Section 10 is sustained by the uniform practice of the War Department for nearly thirty years. Nothing is more convincing in interpretation of a doubtful or ambiguous statute. *United States v. Minnesota*, 270 U.S. 181, 205; *Swendig v. Washington Water Power Co.*, 265 U.S. 322, 331; *Kern River Co. v. United States*, 257 U.S. 147, 154; *United States v. Burlington & Missouri River R.R.*, 98 U.S. 334, 341; *United States v. Hammers*, 221 U.S. 220, 228; *Logan v. Davis*, 233 U.S. 613, 627.

The practice is shown by the opinion of the Acting Attorney General, transmitted to the Secretary of War, [\*414] 34 Op. Atty. Gen. 410, 416. The Secretary of War acted on this view on May 8, 1899, about two months after the passage of the Act. This was followed by the permits subsequently granted down to March 3, 1925. The fact that the Secretary of War acted on this view was made known to Congress by many reports.

But it is said the construction thus favored would constitute it a delegation by Congress of legislative power and invalid. We do not think so. The determination of the amount that could be safely taken from the Lake is one that is shown by the evidence to be a peculiarly expert question. It is such a question as this that is naturally within the executive function that can be deputed by Congress. *Southern Pacific Co. v. Olympian Dredging Co.*, 260 U.S. 205, 208; *Sanitary District v. United States*, 266 U.S. 405, 428; *Field v. Clark*, 143 U.S. 649, 693; *Buttfield v. Stranahan*,

192 U.S. 470, 496; *Union Bridge Co. v. United States*, 204 U.S. 364, 386; *Monongahela Bridge Co. v. United States*, 216 U.S. 177, 192; *Louisville Bridge Co. v. United States*, 242 U.S. 409, 424; *J. W. Hampton, Jr. & Co. v. United States*, 276 U.S. 394, 407.

The construction of Section 10 of the Act of March 3, 1899, was settled by this Court in the decision of the first Chicago Drainage Canal case in 266 U.S. 405, 429. The decision there reached and the decree entered can not be sustained, except on the theory that the Court decided first that Congress had exercised the power to prevent injury to the navigability of Lake Michigan and the other lakes and rivers in the Great Lakes watershed, and second that it could properly and validly confer the administrative function of passing on the issue of unlawful injury or otherwise on the Secretary of War, and that it had done so. To give any other interpretation would necessarily be at variance with our previous decision.

[\*415] It is further argued by complainants that while the power of Congress extends to the protection and improvement of navigation, it does not extend to its destruction or to the creation of obstructions to navigable capacity. This Court has said that while Congress in the exercise of its power may adopt any means having some positive relation to the control of navigation and not otherwise inconsistent with the Constitution, *United States v. Chandler-Dunbar Co.*, 229 U.S. 53, 62, it may not arbitrarily destroy or impair the rights of riparian owners by legislation which has no real or substantial relation to the control of navigation or appropriateness to that [\*\*171] end. *United States v. River Rouge Improvement Co.*, 269 U.S. 411, 419; *Port of Seattle v. Oregon & Washington R.R.*, 255 U.S. 56, 63.

So complainants urge that the diversion here is for purposes of sanitation and development of power only, and therefore that it lies outside the power confided by Congress to the Secretary of War. The Master says:

"There is no doubt that the diversion is primarily for the purposes of sanitation. Whatever may be said as to the service of the diverted water in relation to a waterway to the Mississippi, or as to the possible benefit of its contribution to the navigation of that river at low water stages, it remains true that [\*\*\*434] the disposition of Chicago's sewage has been the dominant factor in the promotion, maintenance and development of the enterprise by the State of Illinois and the Sanitary District. The purpose of utilizing the flow through the drainage canal to develop power is also undoubtedly present, although subordinated to the exigency of sanitation. So far as the diverted water is used for the development of power, the use is merely incidental. This Court, in *Sanitary District v. United States*, 266 U.S. 405, 424, in describing the channel, looked upon its interest to the Sanitary District 'primarily as a [\*416] means to dispose of the sewage of Chicago, although it was also 'an object of attention to the United States as opening water communication between the Great Lakes and the Mississippi and the Gulf."

The Master then considered whether there was any express authorization of the diversion now permitted, except under Sections 9 and 10 of the Act of March 3, 1899, already referred to. On this subject he said:

"Consideration by Congress of the advisability of the proposed waterway from Lake Michigan to the Illinois and Mississippi Rivers, demands by Congress for surveys, plans and estimates, the establishment of project depths, and appropriations for specified purposes, did not in my opinion constitute direct authority for the diversion in question, however that diversion, or the diversion of some quantity of water from Lake Michigan, might fit into an ultimate plan."

This conclusion of the Master is fully supported by reference to the already cited Rivers and Harbors Appropriation Act of 1927 declaring that nothing therein should authorize any Lake Michigan diversion.

The Master also says that appropriations for widening and deepening the Chicago River, and the cooperation with the Sanitary District for several years in that improvement, merely committed Congress to the work as thus actually prescribed, but did not go further, whatever the advantages of that work in connection with the purposes of the Sanitary District's Canal.

He then proceeds:

"There is nothing in any of the acts of Congress upon which the defendants rely specifying any particular quantity of water which could be diverted and it could hardly be considered a reasonable contention that the acts of Congress justified any diversion of water from Lake Michigan that the State of Illinois and the Sanitary District might see fit to make. It is manifest that it was [\*417] the view of the War Department that Congress had not acted directly and whatever the Department did was subject to such action as Congress might take."

He continues:

"This understanding that Congress has not yet acted directly so as to authorize the diversion in question has continued. It was in this view that the United States prosecuted its suit to decree in this Court to enjoin the defendants from taking more water from Lake Michigan than the Secretary of War had allowed."

In this conclusion, which the Court confirms, we are therefore remitted solely to the effect and operation of the permit of 1925 as authority for the maintenance of the diversion.

The normal power of the Secretary of War under Section 10 of the Act of March 3, 1899, is to maintain the navigable capacity of Lake Michigan and not to restrict it or destroy it by diversions. This is what the Secretaries of War and the Chiefs of Engineers were trying to do in the interval between 1896 and 1907 and 1913 when the applications for 10,000 cubic feet a second were denied by the successive Secretaries and in 1908 a suit was brought by the United States to enjoin a flow beyond 4,167 cubic feet a second. Then pending the suit, the Sanitary District disobeyed the restriction of the Secretary of War's permit and increased the diversion to 8,500 cubic feet in order to dispose of the sewage of that District. Had an injunction then issued and been enforced, the Port of Chicago almost immediately would have become practically unusable because of the deposit of sewage without a sufficient flow of water through the Canal to dilute the sewage and carry it away. In the nature of things it was not practicable to stop the deposit without substituting some other means of disposal. This situation gave rise to an exigency which the Secretary, in the interest of navigation and its protection, met by issuing a temporary [\*418] permit intended to sanction for the time being a sufficient diversion to avoid interference with navigation in the Port of Chicago. See *New York v. New Jersey*, 256 U.S. 296, 307, 308. The elimination [\*\*\*435] and prevention of this interference was the sole justification for expanding the prior permit, the limitations of which had been disregarded by the Sanitary District. Merely to aid the District in disposing of its sewage was not a justification, considering [\*\*172] the limited scope of the Secretary's authority. He could not make mere local sanitation a basis for a continuing diversion. Accordingly he made the permit of March 3, 1925, both temporary and conditional -- temporary in that it was limited in duration and revocable at will, and conditional in that it was made to depend on the adoption and carrying out by the District of other plans for disposing of the sewage.

It will be perceived that the interference which was the basis of the Secretary's permit, and which the latter was intended to eliminate, resulted directly from the failure of the Sanitary District to take care of its sewage in some way other than by promoting or continuing the existing diversion. 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, but that amount is negligible as compared with 8,500 second feet now being diverted. Hence, beyond that negligible quantity, the validity of the Secretary's permit derives its support entirely from a situation produced by the Sanitary District in violation of the complainants' rights; and but for that support complainants might properly press for an immediate shutting down by injunction of the diversion, save any small part needed to maintain navigation in the river. In these circumstances we think they are entitled to a decree which will be effective in bringing that violation and the unwarranted part of the diversion to an end. But in keeping with the principles [\*419] on which courts of equity condition their relief, and by way of avoiding any unnecessary hazard to the health of the people of that section, our decree should be so framed as to accord to the Sanitary District a rea-

sonably practicable time within which to provide some other means of disposing of the sewage, reducing the diversion as the artificial disposition of the sewage increases from time to time, until it is entirely disposed of thereby, when there shall be a final, permanent operative and effective injunction.

It is very apparent from the report of the Master and from the state legislation that the Legislature of Illinois and the Sanitary District have for a long period been strongly insistent upon such a use of the waters of Lake Michigan as would dispose of the sewage of the District and incidentally furnish a navigable water route from Lake Michigan to the Mississippi basin; and that not until 1903 was the attention of the public, and especially of the District authorities, drawn to the fact that a diversion like that now used would lower the Lake levels with injurious consequences to the Great Lakes navigation and to the complainant States. The Secretary of War and the Chief of Engineers in 1907 refused a permit by which there would be more than 4,167 feet a second diverted. Advised that the District authorities proposed to ignore that limitation, the United States brought suit against the authorities of the District to enjoin any diversion in excess of that quantity, as fixed in an earlier permit. Another application for enlargement was made to Secretary of War Stimson in 1913 and was rejected. For several years, including the inexcusable delays made possible by the failure of the Federal Court in Chicago to render a decision in the suit brought by the United States, the District authorities have been maintaining the diversion of 8,500 cubic feet per second or more on the plea of preserving the health of the District. Putting this plea [\*420] forward has tended materially to hamper and obstruct the remedy to which the complainants are entitled in vindication of their rights, riparian and other.

The intervening States on the same side with Illinois, in seeking a recognition of asserted rights in the navigation of the Mississippi, have answered denying the rights of the complainants to an injunction. They really seek affirmatively to preserve the diversion from Lake Michigan in the interest of such navigation and interstate commerce though they have made no express prayer therefor. In our view of the permit of March 3, 1925, and in the absence of direct authority from Congress for a waterway from Lake Michigan to the Mississippi, they show no rightful interest in the maintenance of the diversion. Their motions to dismiss the bills are overruled and so far as their answer may suggest affirmative relief, it is denied.

[\*\*436] In increasing the diversion from 4,167 cubic feet a second to 8,500, the Sanitary District defied the authority of the National Government resting in the Secretary of War. And in so far as the prior diversion was not for the purposes of maintaining navigation in the Chicago River it was without any legal basis, because made for an inadmissible purpose. It therefore is the duty of this Court by an appropriate decree to compel the reduction of the diversion to a point where it rests on a legal basis and thus to restore the navigable capacity of Lake Michigan to its proper level. The Sanitary District authorities, relying on the argument with refer-

ence to the health of its people, have much too long delayed the needed substitution of suitable sewage plants as a means of avoiding the diversion in the future. Therefore they can not now complain if an immediately heavy burden is placed upon the District because of their attitude and course. The situation requires the District to devise proper methods for providing sufficient money and to construct and put in operation with all reasonable expedition adequate plants for the disposition [\*421] of the sewage through other means than the Lake diversion.

Though the restoration of just rights to the complainants will be gradual instead of immediate it must be continuous and as speedy as practicable, and must include everything that is essential to an effective project.

[\*\*173] The Court expresses its obligation to the Master for his useful, fair, and comprehensive report.

To determine the practical measures needed to effect the object just stated and the period required for their completion there will be need for the examination of experts; and the appropriate provisions of the necessary decree will require careful consideration. For this reason, the case will be again referred to the Master for a further examination into the questions indicated. He will be authorized and directed to hear witnesses presented by each of the parties, and to call witnesses of his own selection, should he deem it necessary to do so, and then with all convenient speed to make report of his conclusions and of a form of decree.

*It is so ordered.*