

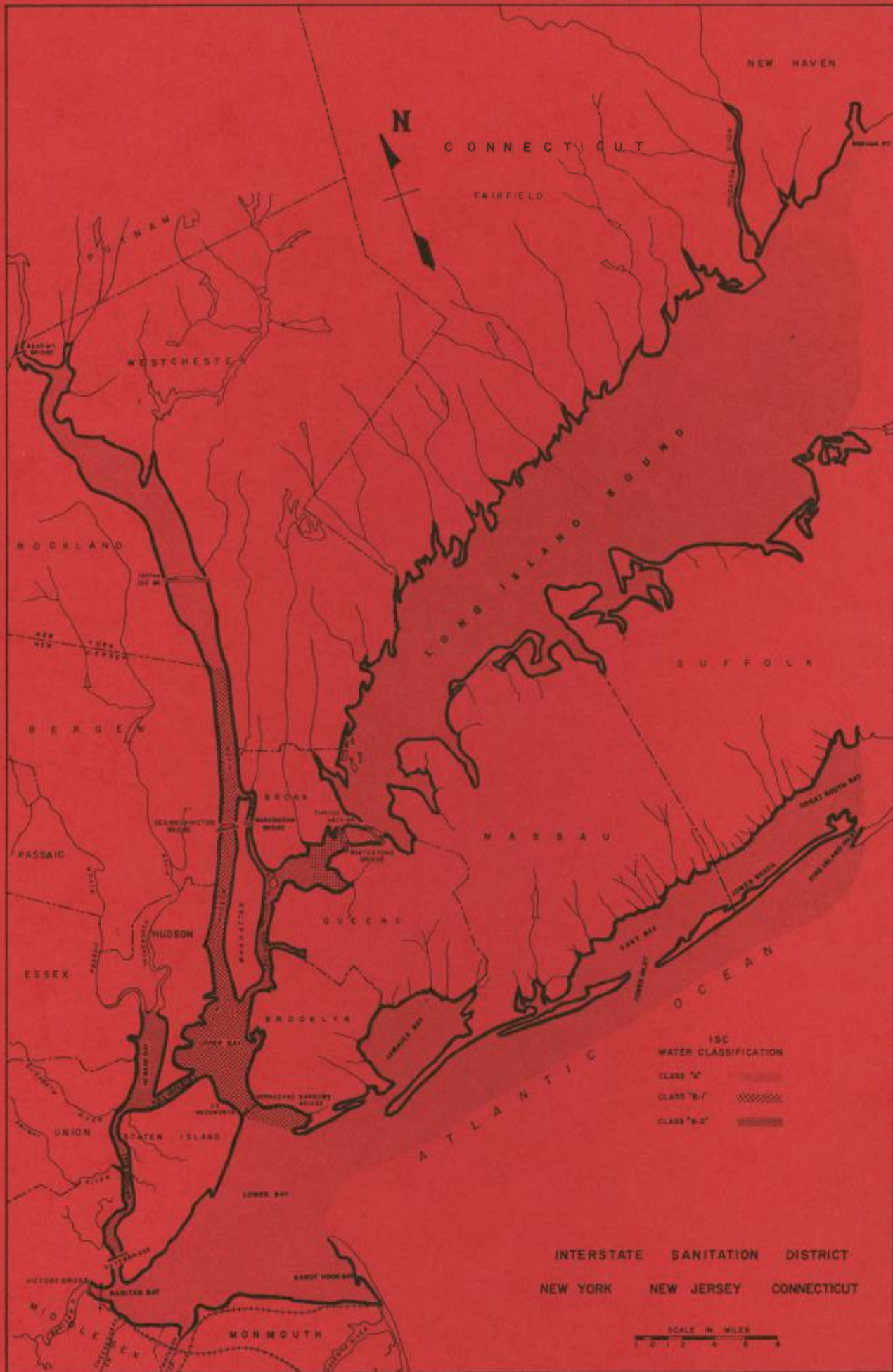
# INTERSTATE SANITATION COMMISSION

*A TRI-STATE ENVIRONMENTAL AGENCY*

1984

IN BRIEF

NEW YORK    NEW JERSEY    CONNECTICUT



C O N N E C T I C U T

F A I R F I E L D

N E W H A V E N

W E S T C H E S T E R

R O C K L A N D

L O N G I S L A N D S O U N D

S U F F O L K

B E R G E N

N A S S A U

P A S S A I C

Q U E E N S

A T L A N T I C O C E A N

E S S E K

B R O O K L Y N

ISC  
WATER CLASSIFICATION

CLASS "A" (stippled)

CLASS "B-1" (cross-hatched)

CLASS "B-2" (horizontal lines)

U N I O N

S T A T E N I S L A N D

I N T E R S T A T E S A N I T A T I O N D I S T R I C T

N E W Y O R K

N E W J E R S E Y

C O N N E C T I C U T

S C A L E I N M I L E S

0 1 2 4 6 8

M O N M O U T H

M I D D L E S E X

V I C T O R Y B R I D G E

B A R I T A N B A Y

S A N D Y H O O K B A Y

L O W E R B A Y

H O R L A N D N A R R O W S B R I D G E

J O R T E S B A Y

U P P E R B A Y

H U D S O N

S E C O N D W A S H I N G T O N B R I D G E

B R O N X

W A S H I N G T O N B R I D G E

T A M M A N A P P L E B A Y

H I K E T O N G B R I D G E

G R E A T N E C K B A Y

U P P E R B E I C H

P I N E I S L A N D B A Y

F A R T B A Y

P O R T J A C O B S

P O T A N O M

F A S A D U N B R I D G E

N E W R I V E R

Y O C O M B B R I D G E

W A S H I N G T O N R I V E R

A R D E N R I V E R

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## INTERSTATE SANITATION COMMISSION

### 1984 IN BRIEF

Recent years have seen something of a change in outlook toward the environment. In general we still appear to want a cleaner environment, but the thrust of the 1960s and early 1970s has slowed. The goal of "all waters fishable and swimmable" by 1985, as set forth in the Federal Water Pollution Control Act of 1972, is now "all waters fishable and swimmable where attainable" and with no target date. The march toward cleaner air continues, but with greater emphasis on the economic feasibility of attaining standards and seemingly less drive to achieve better air than represented by national standards. In fact, key developments of the past year or two seem to be intended to ascertain whether and where there can be a relaxation of environmental requirements without adversely affecting the environment.

In the New York-New Jersey-Connecticut Metropolitan Region 1984 was a year of continued preoccupation with 301(h) proceedings to seek reductions of sewage treatment requirements. However, it did see institution of a year-round disinfection requirement to take effect on July 1, 1986, tentative movement toward reduction of air pollution from sulfur and nitrogen compounds, and preparation of attack on the problems of toxic pollution of waters.

#### DISINFECTION OF SEWAGE

##### The Background

The large volumes of treated and untreated sewage discharged into the Region's waterways present a constant problem of bacterial contamination. This has been combated by efforts to reduce the amount of raw discharge and by disinfection of effluents. In some areas (principally Raritan Bay and Long Island Sound), discharges have been chlorinated or otherwise disinfected on a year-round basis. But elsewhere, disinfection by Publicly Owned Treatment Works (POTWs) has been seasonal -- from mid-April or mid-May until mid-September or mid-October. The purpose has been to provide protection to human health during the warm water recreation season. The practice has also allowed coliform limitations applicable to the taking of shellfish to be met during the time when all sewage treatment plants have been disinfecting. During the cold water period of the year, when many treatment plants have discontinued their effluent disinfection, much of the Region's acreage devoted to shellfish culture has been unavailable for harvesting because coliform limits have been exceeded.

##### Commission Action

In mid-1983, the State of New Jersey requested that the Commission investigate to determine what could be done to make shellfishing possible year-round in Raritan Bay. During the ensuing months, the Commission studied the situation. It appeared that because of the interconnected nature of the

waterways of the Region and the location of major sewage discharges, such action as might be taken could not be limited to Raritan Bay but should deal with the problem more broadly in the Interstate Sanitation District. Further, there were a number of complicating factors. Specifically in Raritan Bay, some of the closed acreage was unsuitable for shellfish harvesting not only because of high coliform counts in the nondisinfection season, but also because of the presence of heavy metals concentrations which had caused the shellfish to contain unsafe levels of heavy metals. By 1984, however, this latter difficulty had been cleared up and coliform counts remained as the obstacle. Also, the effects of raw discharges from sewer locations not yet picked up by treatment plants and from combined sewer overflows needed to be evaluated.

In April 1984, the Commission held a series of public hearings to gather evidence and views on year-round disinfection as a general health measure and as a means of improvement of the shellfisheries. The hearings did not develop an incontrovertible case for or against year-round disinfection as a means of improving the shellfisheries sufficiently. There was contention as to whether other sources of coliform contamination were so substantial as to make reduction of coliform concentrations to acceptable limits impossible. It also became apparent that the shellfish regulatory agencies would, in any case, require actual sampling of water quality conditions in the shellfish beds, with disinfection being practiced in the winter season, before allowing beds to be opened. Consequently, it seemed that the only way to be sure of the result was to require disinfection. The Commission was persuaded that the better course was to require disinfection, both as a general health measure and for its probable beneficial effect on the shellfisheries. The regulation adopted at the Commission's September 19, 1984 meeting exempted from the year-round disinfection requirement only the stretch of the Hudson River north of Yonkers.

There was consideration of the time at which the new requirement would go into effect. It was recognized that some communities would need to make preparations, such as the enclosing of disinfection equipment for winter operations and the budgeting of funds, for the additional period of disinfection. To accommodate these needs, the Commission made the date for the start of the year-round requirement July 1, 1986.

It is also hoped that by that time some of the other sources of heavy coliform discharges (especially those to be picked up by the completion of the North River Sewage Treatment Plant) will also contribute to the lessened bacterial pollution of the Region's waters.

## OCEAN WAIVERS

### The Concept

The Federal Water Pollution Control Act of 1972 (now the Clean Water Act) laid down secondary treatment as the required norm for sewage effluents discharged by Publicly Owned Treatment Works.

In 1977, the Act was amended to add Section 301(h) under which POTWs discharging into "marine waters" could apply for ocean waivers. These are permit modifications to allow less than secondary treatment. The applicant specifies the effluent limitations that it proposes for its discharge permit. The state and/or interstate water pollution control agency must provide the applicant with a "concurrence" in order for the U. S. EPA to proceed with consideration of an application.

The idea underlying the Section 301(h) process is that discharges into the sea can be borne away rapidly and also so diluted as to cause no damage to the environment. Consequently, it is contended that it is wasteful and unnecessary to require secondary treatment for such discharges. At least this is the case if the applicant is able to show that its discharges with less treatment will not adversely affect the environment and that no other dischargers will be required to do more by way of treatment in order to achieve or maintain applicable standards for the bodies of water receiving the wastes.

When Section 301(h) was before Congress, the justification for it was originally based on the examples of some West Coast communities whose sewage discharges are directly into the Pacific Ocean in deep channels where currents are swift and dispersion is rapid. However, the legislation was broadened to apply to all coastal waters of the United States, including estuaries. In many of these areas the West Coast conditions do not pertain, although it is true to a varying degree that the connections of the waters involved with the open sea result in transport of varying amounts, depending on hydrologic and other estuarine conditions of the particular locality involved in each instance.

In 1982-1983, applications were made and considered in various coastal regions of the country for ocean waivers. Within the Interstate Sanitation District, 22 such applications were made by POTWs in New York and New Jersey. Connecticut so strongly discouraged its communities from applying that no filings from that State's Long Island Sound shore were made.

In 1983, the Interstate Sanitation Commission denied all of the concurrences requested within its District on the grounds that the proposals for lesser treatment violated its Water Quality Regulations and that the existing quality conditions in the waters of the Region were not good enough to allow standards to be achieved or maintained if the waivers were granted. In addition to considering each application separately, the Commission also considered the fact that the waters involved were interconnected and moved back and forth among the several parts of the Region, as well as across state lines.

Under the U. S. EPA rules, communities receiving denials have been allowed one time reapplications. Some of these came due for action during the year and were again denied by the Commission; one other may still be up for disposition in 1985. However, most of the applications originally submitted and denied were not presented in revised form for a second-round consideration.

The submission of many applications for plants discharging into estuaries

prompted a movement in Congress to make estuarine discharges ineligible for 301(h). A bill extensively to amend the Clean Water Act, which passed the House of Representatives, contained such a provision. Although prospects for passage of the legislation seemed reasonably good at times during the session, the bill became entangled in bitter controversies on grounds not directly related to the 301(h) issue. As a result, final action was not taken on the legislation before the end of the Congress.

#### NEW SECONDARY TREATMENT REGULATIONS

For approximately two years, a revision of secondary treatment requirements for trickling filters had been gaining support. The proposal was to amend U. S. EPA regulations so as to define the effluent content of discharges from trickling filter processes as the equivalent of secondary treatment when they met somewhat less stringent values for Biochemical Oxygen Demand and Suspended Solids. There was some perplexity over whether trickling filters, with histories of meeting the conventional requirements for secondary treatment, should be allowed to take advantage of the relaxed standards. The final regulations resolve this problem by directing the permitting authority (generally the state water pollution control agency) to make this decision on a case by case basis.

The justification urged for treating trickling filters differently from other processes has been that, while generally satisfactory for providing secondary treatment, these installations do not work at full efficiency in very cold weather. Accordingly, they may not deliver effluents meeting the requirement of 30 mg/l for a 30 consecutive day average and 45 mg/l for a 7 consecutive day average. For trickling filters, the U. S. EPA definition now allows 45 mg/l for the 30-day average and 65 mg/l for the 7 day average. It also contains a provision for 65% removal.

Since these more lenient values are similar to, or in some instances even more relaxed than, the proposals of applicants for 301(h) waivers it may be that at least some of the communities which made proposals for ocean waivers will be enabled to obtain modified permits in accordance with their wishes. They may not do so through the 301(h) process per se, but they may succeed merely by offering to meet the more lenient requirements now defined as secondary treatment for their process. Of course, this observation is limited to communities employing trickling filters. Sewage treatment plants which use other methods such as activated sludge must continue to comply with the values included in the older definition of secondary treatment. How this differentiation among sewage dischargers will be received as a matter of policy by the states may be a question for the immediate future. The Commission, at its December 1984 meeting, took no action to relax its present regulations.

It should also be observed that state and interstate agencies may still, pursuant to the Federal Act, adopt and enforce requirements more stringent than those contained in the U. S. EPA regulations. Consequently, the actual effluent limitations in force in a particular area may still depend on the provisions made by the more stringent of the federal, state, and interstate

agencies with jurisdiction over the particular place.

#### ACID RAIN - SULFUR DEPOSITION

The problem of acid rain has received growing attention in recent years. It is generally portrayed as a condition which causes lakes to be devoid of fish and forests to suffer damage. Thus, in this Region, it is usually referred to in connection with the Adirondacks.

It is more accurate to characterize the problem as one of sulfur deposition. Associated with this condition is the deposition of nitrogen oxides. These contaminants are emitted to the air as a result of burning of fuels. The largest sources are power generating utilities, but other industries and residential uses are also contributors.

Sulfur dioxide is frequently airborne for long distances. Much of this kind of pollution in our Region originates with combustion processes in the Midwest and some other parts of the country as well. Although there is some reverse transport of this air pollutant, the preponderant disadvantage is to the Northeast. The winds are prevailing westerly and so most of the time bring accumulations of atmospheric pollution here from the inland regions. However, local sources are also major contributors to contamination for sulfur and nitrogen compounds. Consequently, there is a need to control emissions in this Region, as well as to lessen the contributions which come from other areas.

Efforts to attack acid rain and deposition of combustion caused dry weather deposition are fairly recent. New York and some other eastern states have sought to deal with the problem of interregional transport by suits against other jurisdictions in the federal courts, but this method has not been successful. Political pressures are also being applied. In 1984, New York employed legislative hearings and conferences to publicize the problem. The Conference of Northeastern Governors (CONEG) has also sought to stimulate action in recent years by bringing attention to the acid rain phenomenon and its adverse results, especially for the Northeastern United States.

If viewed as an environmental blight primarily affecting lakes and forests, the highly urbanized and industrialized New York-New Jersey-Connecticut Metropolitan Area would be an actor through its generation of the unwanted sulfur and nitrogen compound emissions. However, it is important to emphasize that this Region is also a victim. People suffer as much if not more from air contaminated with these toxic pollutants. They place strains on the respiratory and circulatory systems of human beings. Those with healthier bodies can withstand the stresses better. Elderly persons, children, and persons of all ages who have certain kinds of biological weaknesses or illnesses suffer discomfort or aggravation of their conditions in varying degrees.

In 1984, New York made a new beginning in its efforts to deal with sulfur deposition. It enacted legislation calling for procedures to reduce sulfur emissions within the State. Aside from the intrinsically beneficial effects

of achieving local reductions, the law is consciously aimed at persuading the federal government and other states to follow the New York example. The goal set in the New York law is to decrease in-state emissions to the point where, should the other states act similarly, the air quality in New York would meet national standards for sulfur dioxide. Thus, it has become a cornerstone of New York policy and practice to recognize that the problem is a national or interregional one and that attainment of healthful and environmentally satisfactory air quality within the State will be only by action of many states or of the federal government. This approach has both advantages and disadvantages. On the plus side, it may help to provide necessary pressure to deal with the interregional aspects of the problem. Without such wider action, it probably is unrealistic to expect anything like a full solution to the problem as it affects the Northeast.

On the other hand, if the goal of a state is at most to do its part to meet a federal standard that fixes a maximum toleration level for a toxic air pollutant, the meaning is that at best the state's air can be only marginally acceptable.

New York prepared a draft initial approach. From the timing of its release, it became apparent that the work was underway before enactment of the legislation. However, the process will now go forward under the new law. The State Department of Environmental Conservation held hearings on the draft approach. The Commission presented a statement in general support, but pointed out that the urban areas also have a stake in the outcome.

#### COOPERATIVE STUDY

During the year, the number of complaints of odors (cat urine, burning rubber/plastic, etc.) rose sharply in the New Jersey-Staten Island Area. The Commission investigated in accordance with its established procedures, but instances persisted.

The prolonged and severe condition prompted suggestions for a study of the problem on a cooperative basis by industries in the area, the U. S. EPA, the States of New York and New Jersey, and the Commission. The Interstate Sanitation Commission has taken an active part in the efforts to develop such an undertaking and has offered to participate if the negotiations to arrange it succeed.