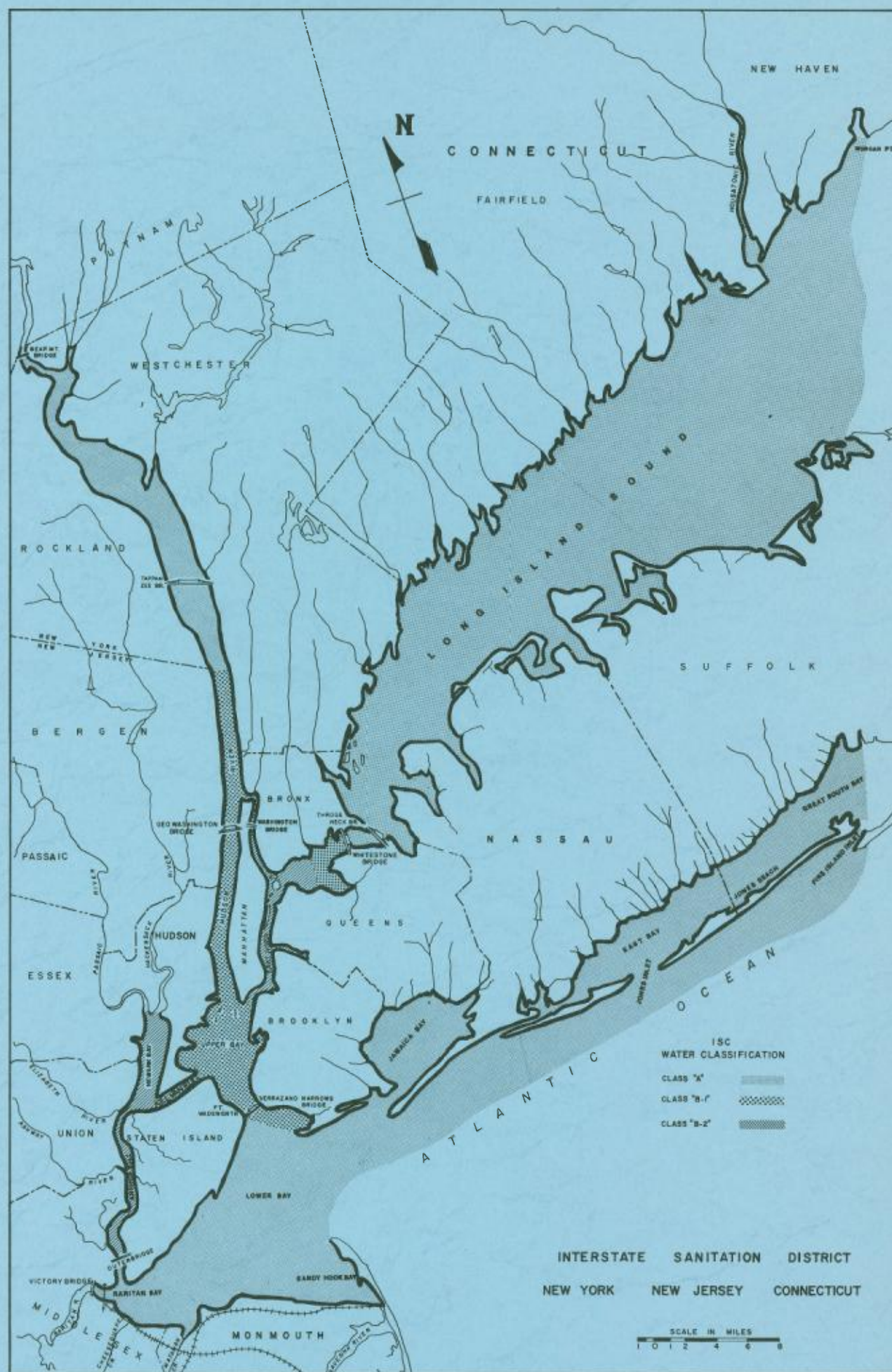


INTERSTATE SANITATION COMMISSION

A TRI-STATE ENVIRONMENTAL AGENCY

1982
IN BRIEF

NEW YORK NEW JERSEY CONNECTICUT



INTERSTATE SANITATION COMMISSION

A TRI-STATE ENVIRONMENTAL AGENCY

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During 1982 the quality of the water and air resources in the geographic area served by the Interstate Sanitation Commission continued to present regional issues of great importance. The Commission assisted the States of New York, New Jersey and Connecticut to deal with them. There were notable accomplishments, but major problems continue unresolved.

COLLECTION AND TREATMENT OF WASTES

Approximately \$2.4 billion in public funds were spent or obligated in 1982 for new and improved sewage collection and treatment systems. This was for capital outlays and does not include the substantial sums expended by local and state governments in the region for operation and maintenance, and for other water quality activities such as receiving water and effluent monitoring and analysis, and comprehensive water quality planning, regulation and enforcement.

The Commission's continuing sampling and analysis of regional waters show some further improvement in quality, especially in terms of the increased presence of dissolved oxygen. This is important because it evidences a decrease of sewage pollution, improvement of conditions for fish survival and propagation, and somewhat better water quality for recreational uses. Nevertheless, this does not mean that most of the region's waters are in satisfactory condition for such uses. For example, until several years ago the most heavily polluted waterways of the area were consistently well below the minimum standard of three parts per million of dissolved oxygen for virtually all of the warm water season. This period of extreme stress appears now to have been shortened to approximately two months of the year (August and September). Furthermore, the poorest dissolved oxygen values are not as bad as they were several years ago.

Lessened availability of funds for federal construction grants, while major needs in the Metropolitan Area are still unmet, has made it even more necessary to evaluate on a comparative basis the measures that can be taken to improve and maintain water quality.

WASTELOAD ALLOCATION

One such possible measure is wasteload allocation. As in other geographic areas, there is a need to do equity in distribu-

ting available assimilative capacity among dischargers. In interstate waters there is the further task of doing equity among the states and to assure that no one of them uses more than its fair share. Any such overloading leads to deterioration of water quality, often to the detriment of all states concerned. It also can inhibit the ability of a non-offending state to make full use of its own water resources.

As an important first step in approaching these problems, the Interstate Sanitation Commission, in cooperation with its member States of New York and New Jersey, and with financial assistance of \$20,000 from the U.S. EPA, has undertaken an inquiry to determine whether at the present time there is any unused assimilative capacity in the area's tidal waters and, if so, where it exists. The first phase of this work is expected to be completed early in 1983.

CHANGES IN MONITORING

For many years, the Commission has sampled the waters of its District on regular schedules. A limited number of automatic electronic monitors which sample for dissolved oxygen, acidity (pH), conductivity (to determine degree of salinity) and temperature are operated by the Commission. These automatic monitors are fixed installations at selected points in the District which telemeter their data continuously to the Commission office on an hourly basis. In addition, boat runs traversing the several parts of the District have enabled frequent collection of water samples, which are analyzed in the Commission laboratory, for the aforementioned parameters and also for a variety of other substances not detectable by electronic devices.

In an effort to increase the efficiency of coverage, the Commission this year undertook to do much of its sampling by helicopter instead of by boat. Each run is more expensive than boat charter, but it traverses the same area more rapidly and with less use of personnel time. It also obviates the necessity of special measures to preserve the samples until they can be gotten to the laboratory because all samples are landed a short distance from the laboratory within an hour or so of their having been taken. Nevertheless, budgetary constraints forced a reduction in the amount of sampling done during the year.

SPECIAL COLIFORM SAMPLING AND ANALYSIS

Disinfection policy toward waters of interstate concern in New York and New Jersey has posed a difficult problem. The requirements of both States evidence agreement that there should be chlorination during the warm water season when recreational val-

ues and protection of shellfisheries are both to be served. At such times, chlorination of sewage effluents safeguards human beings directly in their swimming and boating activities; it also furthers their health by guarding against coliform and other biological contamination of shellfish consumed by humans.

For the protection of the shellfisheries, disinfection is required year-round in New York State, Nassau County, Westchester County (on the Long Island Sound side), and in New York City only at the Oakwood Beach Water Pollution Control Plant. New Jersey has required year-round disinfection by sewage treatment plants, but it has allowed exceptions during the winter of 1982-1983.

In order to gain more information about the significance of disinfection during the cold weather months, New Jersey requested the Commisison to undertake special coliform sampling and analysis. The results have shown that in cold weather, coliform concentrations are high.

DEGREE OF TREATMENT

Ever since the "Enforcement Conferences" held under the Federal Water Pollution Control Act of 1956 during the decade of the 1960's, the basic rule of abatement has been secondary treatment for municipal wastes and the equivalent of secondary treatment for industrial wastes. Not all point sources have yet reached compliance with that rule, but it has generally been taken as the requirement toward which all must move within measurable time. However, Section 301(h) of the Federal Clean Water Act now allows for the granting of exemptions from the secondary treatment requirement to coastal municipal dischargers by the U.S. EPA. An applicant must show that the proposed lesser degree of treatment would not cause waters to fall or remain below applicable receiving water quality standards or be otherwise detrimental.

In addition to the wasteload and assimilation questions mentioned earlier, these 301(h) waiver applications serve to emphasize existing questions concerning methods for maintenance of water quality and for its improvement to meet standards in parts of the Commission's District where actual water quality is now below standards. Factors which contribute to degradation of the region's waterways must be taken into account in determining whether it is possible to reduce the degree of treatment (without still further degrading the waters) from any source where secondary treatment is now practiced or planned.

With treatment plant construction in a much more advanced stage of fulfillment of regional needs than was true some years ago, the large discharges from combined sewers begin to assume even more importance, comparatively speaking, than it previously

had. The Commission has continued during the past year to advocate specific attack on the combined sewer problems in both New York and New Jersey.

COAL CONVERSIONS

The air quality of the Metropolitan Region can be judged in several different ways. Because of its heavy concentration of population and industry, it is difficult and perhaps impossible to have contaminant-free air to the same extent that is found in some more fortunate rural and small urban centers. Nevertheless, it is vital to the residents of southeastern New York, northern New Jersey, and southwestern Connecticut that the content of their atmosphere affords a relatively healthful, comfortable, and aesthetic environment. The cleaner the air, the less stress is put on the respiratory and cardiovascular systems of the people, the greater the feeling of freshness and well-being, and the less grime and dirt accumulate on streets and buildings.

Parts of the region continue to be in violation of standards for the presence of ozone and carbon monoxide. These are substances with known adverse effects on humans. There are numerous other contaminants. Only a few of them are regularly monitored, and for many there have been no federal or state maximum toleration standards issued. However, the region's air quality is not now in violation of any of the existing standards, except for the two already mentioned.

Over the past several decades, changes in the types of fuel burned for residential, commercial and industrial purposes and greatly increased use of motor vehicles have been the dominant factors in air quality conditions. The presence or absence of emission control equipment also has played an important part.

In recent years, increased dependence on imported oil and uncertainties about the continued availability and cost of natural gas have provided pressures for conversion from oil to coal, particularly for electric power generation and other industrial uses. This, along with companion public and private actions, could bring about a partial reversal of the practices which have resulted in a gradual reduction of previous high levels of air contamination, especially from particulate matter and sulfur dioxide.

Consolidated Edison has filed applications with the New York State Department of Environmental Conservation for permission to reconvert three of its electric generating units (Ravenswood No. 3 and Arthur Kill Nos. 2 and 3) from oil to 1% sulfur coal. The proposal is to control particulate emissions by use of electrostatic precipitators but to institute no controls for sulfur di-

oxide emissions, except for the limitation on the sulfur content of the coal burned.

During the late 1960's, action of the U.S. Environmental Protection Agency precipitated a switch to the use of 0.3% sulfur oil by power plants in the region. This requirement is now being relaxed in a notable number of instances to allow the burning of oil with 1%, 1.5%, and even as much as 2.8% sulfur oil on either a temporary or longer range basis. Such relaxations are generally accompanied by conditions that the utility keep a supply of low sulfur oil on hand so that fuel switching can be accompanied during air pollution emergencies.

During the year, extensive hearings were held by the New York State Department of Environmental Conservation on these applications of Consolidated Edison. The Interstate Sanitation Commission, and many other public and private agencies, participated in the proceedings. At the close of 1982, the decisions on the permits had not yet been made because the proceeding was still in progress.

The Commission has taken the position that if particulate emissions are controlled, and if Consolidated Edison is required to install flue gas desulfurization, the utility should be allowed to proceed. Further, a higher sulfur content coal (up to 2.5%) could be allowed. However, without flue gas desulfurization, a prerequisite to the granting of the applications should be an interstate agreement among New York, New Jersey and Connecticut that would allocate available margins on a regional basis and assure that each state would keep its emissions from all sources within permissible standards of ambient air quality.

EXPANDED INVESTIGATORY AND COMPLAINT SERVICE

The answering of citizen complaints of air pollution conditions and incidents has been a major part of the Commission's air quality program since its inception 20 years ago. Upon the receipt of such complaints, Commission field personnel have gone to the scene to determine the nature of the condition or occurrence and have referred those instances appearing to require enforcement action to the appropriate agencies of the member states.

Because of its geographic location, Staten Island has proved to be a particularly prolific source of these complaints. Previously, field personnel responded only from the Commission office or laboratory in Manhattan and, during nighttime and weekend hours, from the homes of the inspectors involved. In September 1982, the Commission opened a Staten Island field office from which two Sanitarians now work. This permits more rapid and efficient on-the-scene coverage of a key interstate area.