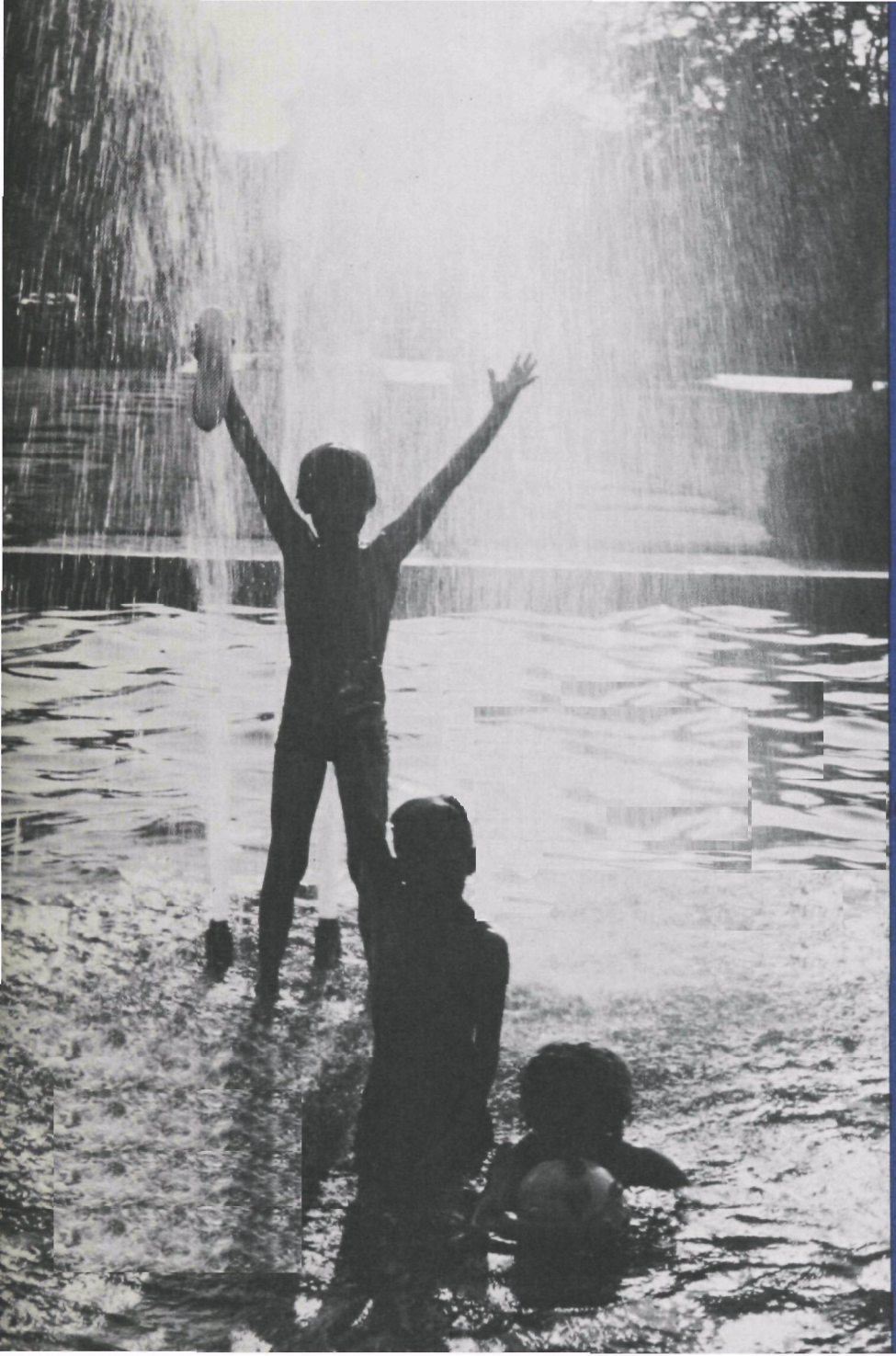

A Five-Year Water Quality Management Program 1978-1983

AN AGREEMENT BETWEEN
NEW YORK STATE
AND
THE UNITED STATES
ENVIRONMENTAL
PROTECTION AGENCY

UNITED STATES ENVIRONMENTAL
PROTECTION AGENCY, REGION II

NEW YORK STATE DEPARTMENT OF
ENVIRONMENTAL CONSERVATION

A Five-Year Water Quality Management Program 1978-1983

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To the Citizens of New York State:

An abundance of water is one of the great natural assets which the northeastern States have to offer.

As one of these water-rich States, New York has led the way in development of its water resources, its water-based industries, and in the cleanup of water pollution which has blighted many of our lakes, rivers and creeks, and much of our seashore. Progress is evident in controlling water pollution from raw sewage and easily discernible industrial wastes, but other problems, such as toxics, land runoff, and residual wastes must still be solved. A number of "second generation" steps must now be taken to meet our goals for water quality and solve those problems whose seriousness we are only now just beginning to grasp.

This booklet summarizes the draft Agreement between the State of New York and the Environmental Protection Agency, Region II. The Agreement represents a joint effort to bridge the gaps which now exist both between programs and between levels of jurisdiction, responsibility, and interest. It will provide the necessary vehicle to integrate diverse water programs, to relate planning efforts directly to operational programs and will assure the continued development and implementation of the State's Water Quality Management Program.

It is intended not only to guide State and Federal programs, but also to serve as a direct statement to you, the involved citizens, about the dynamics of Water Quality Management. It is your opportunity to assist us in this open process of making choices to determine the future course of our programs. We need your expertise, your comments, your suggestions. We hope that you will become actively involved in helping us.

Peter A. A. Berle
Commissioner
New York State Department of Environmental Conservation

Eckardt C. Beck
Regional Administrator
Environmental Protection Agency, Region II

Introduction

This Booklet . . .

This booklet provides a brief synopsis of some of the key strategies contained in the draft State-EPA Agreement, and describes how more detailed information can be obtained. The purpose of the booklet is to provide information and stimulate public input to the Agreement.

The Agreement . . .

The State-EPA Agreement outlines strategies covering a five-year period for meeting public goals for water quality in New York State. It sets priorities and milestones for accomplishment of management objectives. This booklet describes some of the major features of the Agreement.

The Agreement is a management tool for DEC, EPA, and other agencies participating in the State's water quality program. As such, future Federal program support funds which become available to New York under the Clean Water Act, Resource Conservation and Recovery Act, and Safe Drinking Water Act will be used to advance the work indicated in the Agreement.

What's New . . .

The Agreement is more than just a description of the State's water quality management program. It reflects a "second generation" of strategies to carry forward the State's program. For example, the Agreement reflects new emphasis on:

— water management from "source to sink," relating water supply and water quality,

— broader approach to water resource management through greater attention to such activities as groundwater management and flow regulation,

— new emphasis on protection of public water supplies,

— water conservation and reuse,

— recognition that DEC is in a period of extensive program development for newer water quality concerns related to toxics, residual wastes, nonpoint sources, multiple use, best management practices, and other nonstructural approaches,

— greater attention to coordination with environmental resource protection.

Issues . . .

The Agreement contains many important issues which affect the environmental, social, and economic well-being of the State. Where do you stand on such issues as:

— should control of toxic substances be the highest water quality management priority in New York State?

— should Federal funds be made available for control of stormwater runoff?

— how should State and Federal programs for water supply and water quality be better coordinated?

— what role should nonpoint-source control play in an overall water quality management program?

It is important that the Commissioner and the Regional Administrator are aware of public attitudes related to these and the many other issues contained in the Agreement.

Assuming . . .

The Agreement is predicated on assumptions that the level of public funding available to New York for water quality management will not only continue, but increase, particularly to develop and implement new program elements.

Hopeful signs for this include passage of the Clean Water Act Amendments of 1977 which includes several important new funding opportunities and new authorizations. Among these are:

— five-year extension of construction grants, totaling $24.5 billion nationally,

— new financial assistance to rural landowners for nonpoint-source control, totaling $600 million,

— new "set-aside" for State management of construction grant program,

— new eligibility for use of construction funds for broader project planning and development,

— renewal of authorization for State planning and program grants.

The Safe Drinking Water Act and the Resource Conservation and Recovery Act also provide substantial funding authorizations. However, these authorizations and those from other Federal Acts, including the Clean Water Act, require subsequent appropriations by Congress if the promise of increased program support is to be realized. In addition, State appropriations for these and related areas of water quality are vital for program continuation.

Beyond State and Federal funds, implementation of the Agreement is also dependent on timely and favorable Federal action on necessary standards, regulations, and national policies for water quality management.

Finally, the Agreement is dependent upon broad public support as well as continued and improved cooperation between agencies of government at all levels in New York, along with designated areawide planning agencies.

A Perspective On Water Quality

We live in a Nation that is blessed with riches. We have more space, more money, more opportunities, more natural resources than almost any other land on earth. It seemed that things could never run out, that we could afford to be both careless and wasteful.

Yet now we are faced with the fruits of that careless attitude. The seemingly limitless natural resources which helped us to become the most industrialized Nation in the world are threatened. In many parts of the United States, drinking water sources have been contaminated by infectious bacteria and toxic chemicals that threaten human health. Fishing has been restricted in some locations, and beaches closed. The quality of water has become a national concern equal to the need for sufficient quantity.

To help protect the quality of the Nation's waters, Congress has passed a far-reaching piece of legislation known as the Clean Water Act.* Essentially the Act challenged America to take the steps necessary to achieve and maintain "clean" water in its lakes, rivers, and streams by the year 1983. Some of these steps are difficult, as they ask much from cities and industries, from builders and conservationists, from farmers and workers, from urban dwellers and vacationists, from all of us. But a firm commitment to clean up our precious water resources was made.

This national resolve has long been exemplified in the State of New York. For the past 19 years, New York State has led the Nation in water pollution control. Since passage of the billion-dollar Pure Waters Bond Act of 1965 and the Environmental Quality Bond Act of 1972, many waste treatment plants have been built. Although much remains to be done, the State has greatly reduced the threat of pollution from the "conventional" types of oxygen-consuming and bacterial wastes.

The mid-1970's, however, uncovered a more complex set of problems related to the presence of toxic substances in the environment. These include the problems

* The Federal Water Pollution Control Act Amendments of 1972, as amended by the Clean Water Act of 1977.

associated with residual waste, such as sludges from municipal and industrial treatment plants, hazardous wastes generated by industry, air pollution control wastes, and others. Even though these wastes may be treated to the degree that they cannot be easily seen, they still have damaging effects on both surface and groundwaters.

Thus, while New York and other States have made great strides in controlling water pollution from raw sewage and easily discernable industrial wastes, problems associated with the menacing and elusive toxics and residual wastes must still be solved. During the next five years, New York's Water Quality Management Program strategy will greatly expand emphasis in these areas.

Already, New York State and six areawide agencies have water quality planning efforts underway. Initial plans, to be completed in 1978, are addressing such critical problems as groundwater pollution, combined sewer overflows, sewage sludge disposal, and nonpoint sources of pollution. The initial plans and the continuing water quality management planning process will provide the major elements of New York State's water quality management strategy.

The overriding concern throughout the State's program is the protection of the public health, especially where drinking water resources may be affected. This is a challenge that is not likely to present simple solutions. It will not be solved without the help of citizens who are willing to defend the environment—for themselves, for their children, and for the health and welfare of future generations.

The Major Concerns In New York State

Water pollution control programs came into existence as we discovered we could no longer meet the demand for clean water. Solutions were sought and many were found. In many cases, pollutants could be removed and waters were purified to meet water quality standards.

The water quality standards of today are not so easily attained, however. New analytical techniques have enabled us to detect toxic substances which we never even knew existed. New Federal and State laws call for strict limits to be set on the types and amounts of toxics which may be discharged. Emphasis in this Agreement is on preventing pollution, rather than after-the-fact cures.

The Department of Environmental Conservation's studies of the State's major lakes, rivers, and streams identified 26 activities which cause serious water quality problems in the State. As shown in the table on page 14, EPA and the State have evaluated these activities, and have agreed that six are statewide priorities:

— Industrial Discharges

— Municipal Discharges

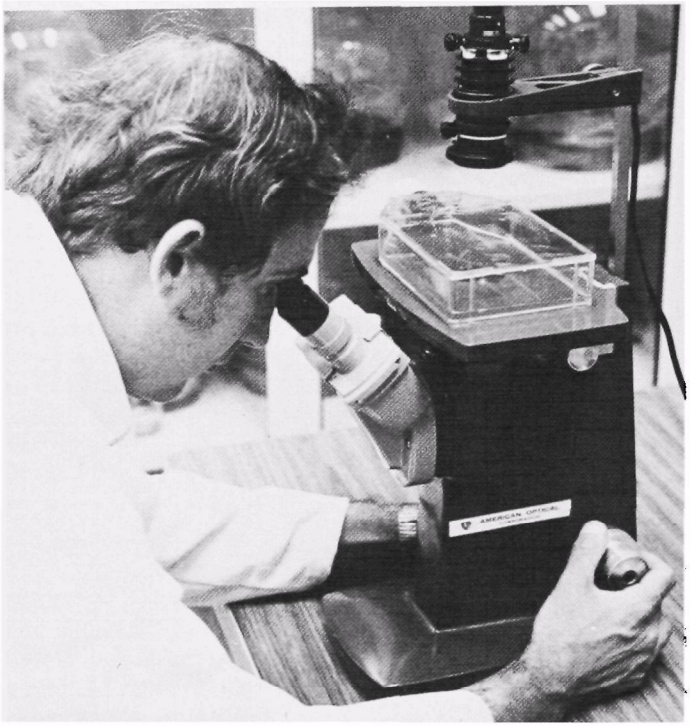
— Combined Sewer Overflows

— Urban Storm Runoff

— Residual Wastes

— Man-Made Modifications to Waterways

The following pages briefly describe the State's water quality management problems and the proposed strategies for dealing with them. The emphasis is on the six statewide priorities.



Industry And Toxics

Industrial discharges are wastes discharged directly into the water by industries, or sent through municipal sewage treatment plants to be discharged "indirectly" through municipal systems. Most of the industrial waste generated in New York State is treated to some degree before being discharged.

Between 1978-1983 EPA will establish strict new tolerance limits for 65 high-priority pollutants. All of these substances, and possibly additional ones, will require the application of the "Best Available Technology Economically Achievable" (BATEA) in order to meet new national effluent limitations which will be enforced by July 1, 1984.

New York State is identifying industries in the State which are discharging the 65 high-priority pollutants, in addition to other substances of concern in the State. As the BATEA guidelines are promulgated by EPA, the State will enforce them through industrial discharge permits.

During the next five years, New York State will continue to expand research and data-gathering activities, such as the statewide Industrial Chemical Survey, to fill in critical knowledge gaps about toxics. In its permit and monitoring programs the State will give priority to toxic substance control.

While enforcement of BATEA will be a major step forward in controlling industrial discharges, even more stringent controls may be necessary in some cases to protect public water supplies and environmentally sensitive areas. New York State will identify such areas during the next five years and develop appropriate water quality standards, and possibly reclassify uses, as necessary. These new standards and use classifications will be incorporated into industrial discharge permits.

Municipal treatment plants are designed primarily for domestic wastes and are not usually equipped to treat the complex toxic substances contributed by industry. After promulgation of pretreatment regulations by EPA, DEC will develop a comprehensive State pretreatment strategy. All indirect dischargers would be required to comply with pretreatment regulations being developed now by EPA. As part of a toxic strategy New York State is tracking down some 6000 industrial dischargers some of which discharge through municipal systems.

Municipal Waste Treatment

Municipal discharges are domestic sewage and wastes from businesses and industries which pass through a municipal treatment system before being discharged into the State's waterways. In New York State, most of the municipal sewage flows are, or will be, treated in secondary sewage treatment plants constructed with funds made available from State bond acts approved in 1965 and 1972, and the Federal Water Pollution Control Act. By traditional standards used to measure organic oxygen-consuming wastes and infectious agents in municipal wastes, the overall level of water quality has definitely improved over the past 15 years.

Federally sponsored municipal sewer-needs surveys in 1974 and 1976 identified about $38 billion of needs for collection systems, advanced wastewater treatment, management of combined sewer overflow and urban runoff problems. Through the State's Continuing Planning Process New York State will refine its 20-year projected wastewater treatment needs in communities throughout the State. Waste loads will be estimated according to current population projections and land-use concerns.

Through the new Clean Water Act and EPA policy directives front-end environmental planning is emphasized. In the project development phase of the facility planning process, greater emphasis will be placed on coordination with environmental resource protection, land development, and related growth decisions, pretreatment, water conservation and reuse, related public water supply considerations, multiple use for recreation, and innovative and alternative technologies.

The large public investment in municipal treatment plants is of no benefit if not accompanied by adequate operation and maintenance. Through its operation and maintenance grant program, the State will continue to define what is needed in terms of municipal manpower and funding. The State has the authority to withhold funds and assess penalties for facilities that are not adequately operated and maintained.

As indicated in the Industry and Toxics Section, a major problem is the lack of pretreatment requirements to handle toxic wastes discharged into municipal systems. EPA is currently developing national pretreatment requirements. Prior to the promulgation of these new pretreatment requirements, DEC will continue to collect information on indirect dischargers and review municipal sewer-use ordinances to determine whether they need to be upgraded. Subsequent to EPA's development of pretreatment requirements, DEC will develop a statewide pretreatment strategy.

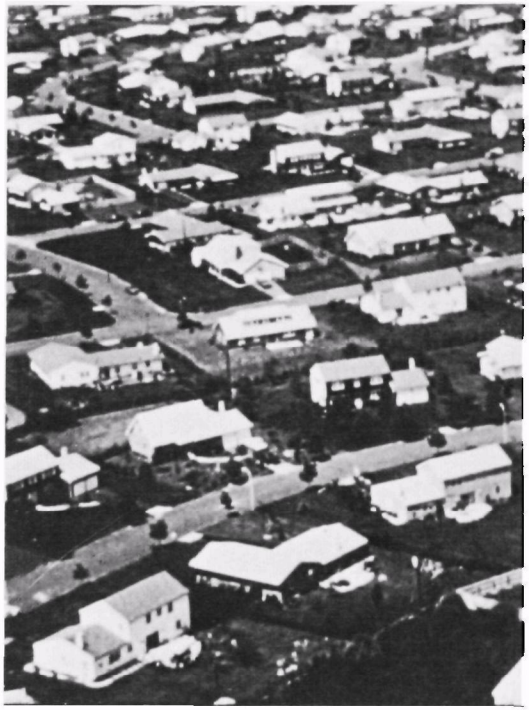
Combined Sewer Overflows

Combined sewer overflows are a major problem in many major urban communities in New York State. In these systems, the same sewers collect and transport sanitary sewage and stormwater runoff to the municipal treatment plant. When it rains, the capacity of the system can be exceeded with the excess flow bypassing the treatment plant. This results in discharge of untreated sewage into the receiving water. Under the Agreement the State will develop a strategy to contend with this problem. Federal funds, however, for constructing new systems and upgrading existing systems are essential. Presently, the Clean Water Act of 1977 may not allow the funding of the stormwater portion of these projects.

Unfortunately, a total solution to the problem of combined sewer overflows is extremely expensive since it involves major changes in the sewer system or the treatment plant. Large holding tanks or underground storage systems could be built to hold excess wastewater for later treatment or dual drainage systems for sewage and stormwater could be constructed to alleviate the load on the treatment plant. The State is identifying the combined sewer systems where improvements are most urgently needed to meet both present and future community needs.

Also recognizing the high costs of solving the combined sewer problem, the State and EPA will continue to investigate alternative solutions. These will include Best Management Practices (BMPs) which can reduce the amount of dangerous pollutants which otherwise are washed off from the land into the sewer systems when it rains.

Urban Storm Runoff



Urban storm runoff includes overland runoff that runs directly into streams, and runoff which is collected by storm sewers and then discharged directly to streams. In densely populated areas, urban storm runoff picks up contaminated materials from industrial sites, streets, parking lots, and other locations where garbage and debris accumulate.

DEC will develop a comprehensive strategy to deal directly with urban storm runoff problems. This strategy will evaluate both structural and nonstructural "best management" approaches, and it may include recommendations for amendment of the Clean Water Act of 1977 which has curtailed Federal funds for construction of stormwater treatment facilities.

DEC will utilize the water quality management planning process (including existing work being done under the Statewide 208 Urban Runoff Study) to identify and map urban runoff problem areas and to quantify the effects of this source type relative to other sources.

The DEC, the State Department of Health, and other monitoring agencies in New York, will exchange water quality information regularly to help make sure that all concerned parties are aware of existing runoff problems and the corrective actions which might be taken.

Residual Waste Management And Resource Recovery

Residual wastes include industrial and municipal treatment plant sludges, hazardous process wastes generated by industry, garbage and trash, septic tank pumpings, dredge spoil, air pollution control wastes, and semisolids and liquids stored in surface impoundments.

In an ironic way, some residual wastes are the disagreeable product of successes in other areas of water pollution control. For example, the widespread treatment of raw sewage and heavy industrial wastes produces a great quantity of sludge containing toxic substances and other pollutants. New York City metropolitan area sewage sludge has been dumped into the Atlantic Ocean for years. But all ocean dumping will be prohibited by law after 1981, and new alternatives are being sought.

Modern technology has devised methods for removing dangerous pollutants from the air, but the air pollution control wastes are not always disposed of properly. Likewise, harbors and rivers are dredged regularly to clear navigation channels, but problems arise in the proper disposal of the dredge spoil.

Great quantities of garbage and trash are buried between layers of earth in landfill disposal sites. If these landfills are not

properly designed and operated, water leaching down through the waste picks up pollutants and carries them off to groundwater and some surface waters. It is currently estimated that 146 landfill sites in New York State produce observable leachate. Since more than four million people in New York State use groundwater as their main source of drinking water, the leaching of contaminants from landfills can create an extremely hazardous situation.

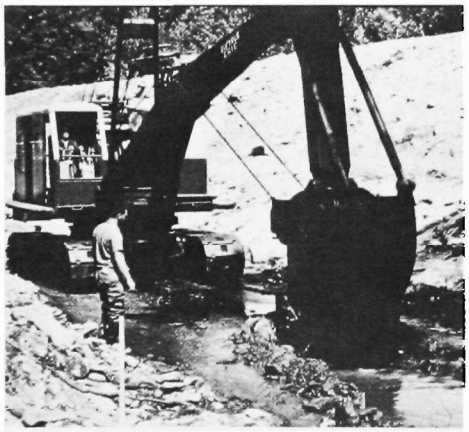
In the Agreement, New York State and EPA have set forth two major strategies to help solve the problems associated with residual wastes. One strategy recognizes that valuable energy and usable resources can be recovered from residual wastes. The second strategy deals with the proper disposal of any remaining residual wastes.

New York State is in the midst of developing its resource recovery program. Sources of residual wastes have been identified and the amount of usable materials determined. DEC has developed projections of all types of residual wastes, and defined areas of the State which generate enough waste to support a resource recovery program. A comprehensive residual management plan has been prepared for the Governor's and Legislature's approval. Provisions will be made for the management of area residual waste operations by local governments or combinations of local governments. Funds will be sought to construct processing plants, and markets will be developed for the sale of recovered resources.

Groundwater information collected by the DEC, Department of Health, U.S. Army Corps of Engineers, EPA, U.S. Geological Survey, and others will be coordinated to get a clearer idea of the amount and type of groundwater contamination, especially regarding toxics from disposal sites. All 662 landfill disposal sites in the State are required to have permits, and these sites will be upgraded as necessary to meet the criteria required by these permits—or they will face closure. Landfill disposal sites will be monitored regularly.

Pending State legislation would set in motion a new system for monitoring and controlling generators of hazardous wastes. Municipal and industrial sludges will be analyzed for toxics before land disposal.

Man-Made Modifications To Waterways



Throughout its history, New York's abundant water resources have been developed to meet commercial and industrial objectives. Major rivers have been regulated by upstream lakes, and many reservoirs have been constructed for public water supplies, hydroelectric power generation, flood control and navigation, with little consideration for water quality. Water quality problems can be either caused or helped by existing water management projects affecting channel modifications, impoundments, withdrawal and recharge of water, and other activities which regulate or alter water flow.

For example, streams and rivers might be dammed or diverted from their natural paths to control flooding. While flooding is prevented, the river flow is often insufficient to carry away suspended solids, and fishing waters and harbor areas can be damaged by vast accumulations of sediment. Inadequate or widely fluctuating releases from reservoirs can impair downstream fish and wildlife, recreation, and aesthetic values.

New York State will continue its program to increase the beneficial environmental effects of man-made modifications. During the next three years, the State will continue its flow regulation studies. As a result of past studies conducted by DEC in the Delaware River Basin, new reservoir release strategies have already been developed for some reservoirs to reduce environmental damage.

Nonpoint-Source Pollution

There are two broad categories of pollution sources: "point" and "nonpoint." Point sources are end-of-the-pipe discharges such as those coming from industrial operations and municipal treatment plants. Pollution from point-source discharges can be measured and ultimately controlled.

Pollution from nonpoint sources presents a much more difficult set of problems because it enters waterways through overland runoff or gradual seepage through the soil and into groundwaters. In agricultural areas, for example, rain can wash nutrients, herbicides, pesticides, and topsoil into nearby waters. Where construction, mining, or land development activities are underway, contaminated residue and sediments can be washed into the water. Forestry activities, such as timber harvesting, can result in severe localized erosion and sedimentation problems.

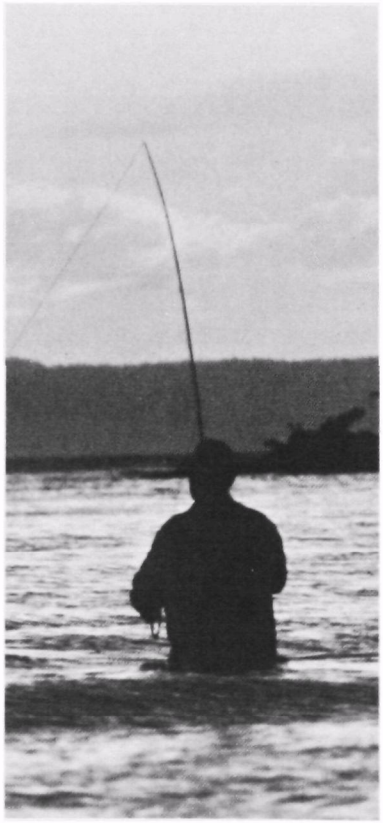
Nonpoint-source pollution also can come from septic tank systems and poorly designed or improperly managed landfills, where water picks up pollutants as it seeps through the soil and carries them into groundwater supplies.

Nonpoint-source pollution generally cannot be collected and treated like municipal or industrial waste discharges. One way to reduce this type of pollution is through better management of the activities which are causing the pollution.

For example, farmers may use such familiar conservation practices as terracing, contour strip planting, minimum tillage and other new techniques being developed. Studies have shown that good conservation practices such as these can substantially reduce sediment pollution. The 1977 Amendments to the Clean Water Act include a major new Federal grant program to assist rural land users in installing Best Management Practices for nonpoint-source pollution control. Maximum use of this program will be made in New York.

DEC is presently developing a nonpoint-source management program with the assistance of the State Soil and Water Conservation Committee and other agencies drawing upon and coordinating many related programs already in effect in the State. Initial focus of the new management program will be in the areas of agriculture, forestry, mining, and construction.

A statewide assessment of the magnitude and geographic extent of nonpoint-source pollution problems is underway. Appropriate Best Management Practices will be evaluated and adopted. Voluntary land-use management tied to specific schedules and objectives will be emphasized during the next five years, but regulatory alternatives will be considered where experience demonstrates the need.



Summary of Water Quality Management Problems by Six Designated and Eight Non-Designated 208 Planning Areas

Water Quality Management Problem by Category	Designated Areas						Non-Designated Areas New York State								
	Nassau-Suffolk Regional Planning Board	New York City Department of Environmental Protection	Westchester County	Central New York Regional Planning and Development Board	Southern Tier Central Regional Planning and Development Board	Erie-Niagara Counties Regional Planning Board	New York State 3	New York State 4	New York State 5	New York State 6	New York State 6A	New York State 7	New York State 8	New York State 9	Statewide
Municipal Discharges	●	●	●	●	●	◐	●	●	◐	◐	●	●	●	◐	●
Industrial Discharges	●	●	●	●	◐	●	●	●	◐ ●	◐	◐	◐	◐	●	●
Residual Wastes	●	●	◐	●	◐	●	◐ ●	◐ ●	◐ ●	○	◐ ●	◐	●	◐	●
Combined Sewer Overflows	∅	●	●	◐ ●	●	●	●	●	◐ ○	◐	●	◐	●	○	●
Urban Storm Runoff	●	◐	●	◐ ●	●	●	●	●	◐ ○	○	●	◐	●	○	●
Man-Made Modifications to Waterways	◐	◐	●	●	◐	◐	●	◐ ●	◐ ●	●	●	◐	●	○	●
Accumulated Bottom Pollutants	●	◐	◐	∅	∅	◐	◐ ●	◐ ●	●	∅	∅	∅	◐	∅	
Excessive Water Use	◐	●	◐	◐	◐	∅	◐	◐	○	∅	∅	∅	∅	∅	
Oil and Hazardous Material Spills	●	◐	●	◐	◐	◐	●	◐ ●	◐	●	○	∅	●	◐	
Environmentally Unsound Development	●	◐	●	◐ ●	○	○	●	◐ ●	◐ ●	○	◐	○	◐ ●	○	
On-Lot Septic Disposal	●	∅	◐ ●	●	●	◐	◐ ●	◐	◐ ●	◐	◐	●	●	◐	
Construction	◐	○	◐	◐	●	◐	◐	◐	○	○	◐	◐	●	◐ ○	
Landfill Leachate	●	◐	◐ ●	●	○	●	◐ ●	◐ ●	◐ ○	○ ◐	◐	◐	◐	◐	
Agriculture and Irrigated Agriculture	●	∅	◐ ○	◐	◐	◐	●	◐	○	○	○	◐	◐ ●	◐	
Dredging Operations and Spoil Disposal	●	◐	◐	◐	∅	◐	◐	◐	◐	○	○	∅	●	∅	
Silviculture	∅	∅	◐	◐ ○	◐	○	◐	◐	◐ ●	◐ ●	◐	◐	◐	○	
Vessel Wastes	◐	◐	◐	◐	∅	◐	●	◐	◐ ●	●	◐	∅	●	◐	
Complex Surface/Ground and Salt Water Intrusion	●	◐	◐	◐ ●	●	◐	◐	◐	○	∅	∅	∅	◐ ○	◐	
Mining	○	∅	○	◐	◐	○	◐	◐	◐	◐	○	○	○	◐ ●	
Thermal Discharges	◐	●	◐	◐	◐	◐	●	◐ ●	●	◐	◐	∅	●	○	
Animal Feedlots	◐	∅	∅	∅	◐	○	◐	○	○	○	○	○	◐	◐	
Other Nonpoint-Sources	●	◐	◐ ●	●	○	◐	●	◐ ●	◐ ●	◐	◐	◐	◐	●	
Radioactive Wastes	◐	∅	∅	∅	∅	●	∅	∅	∅	∅	∅	∅	∅	∅	
Snow Removal and Deicing	◐	○	◐	○	∅	◐	○	◐	◐	∅	∅	∅	∅	∅	
Air Pollution Residuals and Acid Rain	○	○	∅	∅	∅	∅	∅	∅	●	●	◐	∅	∅	∅	
Inadequate Quantity of Water Supplies*	◐	◐	◐	◐	∅	∅	◐	◐	∅	∅	∅	∅	∅	∅	

* (Not a water quality management problem, but a need.)

No indication of problem and/or no information ∅
High ●
Medium ◐
Low ○

Other Water Quality Management Concerns

In addition to those already discussed, there are many other serious water quality management problems in New York State. Some of them occur in localized areas and do not affect a large percentage of the State's population, but they are still of critical concern. The State Water Quality Management Program will work towards solutions to all of these problems during the next five years, and the Agreement details many strategies which will be used to reach these solutions.

Some water quality management problems occur only periodically, but have extremely severe effects. A prime example of this type of "episodic" problem is the occasional spills of oil and other hazardous substances along the coastal zones and in streams, rivers, and lakes. During 1976, the DEC received reports of 994 spills, of which about 25 percent were hazardous substances other than oil. Additional complications arise when the spiller does not assume responsibility immediately, especially when spilled contaminants seep into groundwater.

Another water quality management problem encountered increasingly around the State is "thermal discharges" connected with the operation of power plants and some industrial cooling facilities. At the present time, about 10 billion gallons of thermal discharges are made daily into State waters. While thermal discharges have not brought widespread problems to date, new power plant developments expected to occur in response to increasing energy demands expands the likelihood of associated water quality problems in the future. On smaller tributary streams thermal problems can also result from unwise removal of trees and other

streambank vegetation. In either case, rising water temperature can disrupt the natural environment, having serious biological effects on certain aquatic species.

In a similar manner, natural stream environments are adversely affected by high salinity resulting from excessive winter use of road salt and inadequate storage of salt supplies.

Groundwater management is identified in the Agreement as a major concern, with more than four million New York residents dependent on underground aquifers as their source of water supply. Major efforts under the Section 208 Program have included extensive analysis of groundwater systems on Long Island, and upstate in the Cortland and Elmira-Corning areas. Presently DEC is modifying its groundwater standards to provide protection for drinking water supplies. The State will develop a comprehensive program for groundwater conservation with effective monitoring and regulatory measures.

The problem of failing on-lot septic disposal systems is also of concern both for surface and groundwaters. More effective maintenance of these systems which serve several million residents in unsewered areas is a continuing concern. Current Section 208 studies include site-specific analyses of rural hamlets which have septic problems and which cannot be expected to afford sewers. Under the Clean Water Act of 1977, new funding alternatives are becoming available which may provide solutions to such communities.

Water conservation and reuse is rapidly becoming recognized as an important aspect of water quality management. Elimination of excessive water use will reduce the quantities of sewage to be treated. Conservation is often more cost-effective than development of new sources of water supply. Industrial water conservation and reuse is expected to increase as industries improve the level of on-site treatment, particularly to remove toxic wastes. The 1977 Amendments to the Clean Water Act offer additional incentives to municipalities for water conservation. In addition, DEC has proposed a comprehensive State legislative program for water conservation. Along with this, DEC is proposing in the Agreement a broad-based public education program for water conservation.

With our over 4000 freshwater lakes, lake restoration and management is an important objective of water quality management in New York. Eutrophication, or the natural "aging" process of our important lake resources, can be speeded up by man's land-use activities around the lakeshore and within the lake drainage basin resulting in undesirable changes in aquatic ecology. The present very limited program for lake management and restoration needs to be expanded.

Many streams and lakes in the Adirondacks are adversely affected by acid rain precipitation, some of which originates outside of the State's borders. Airborne pollutants, especially sulphur dioxide and nitrogen oxides, particulate matter, hydrocarbons, chlorofluorocarbons and some toxics generated by sources both within and outside the State, are believed to be contributing to water pollution in some areas of the State especially in the Niagara Frontier and New York metropolitan areas.

Throughout the Agreement is the recognition that the future holds a major emphasis on land resources management as a means of meeting water quality objectives. While the remedial approach of the past is still viable for solving certain problems, the key to more efficient and less expensive resource management is prevention of the problems through more effective consideration of the water quality impact of our activities on the land. As previously indicated, Best Management Practices are one approach for such diverse problems as those associated with nonpoint sources including forestry, agriculture, mining, and construction activity, as well as urban runoff from industrial sites and city streets.

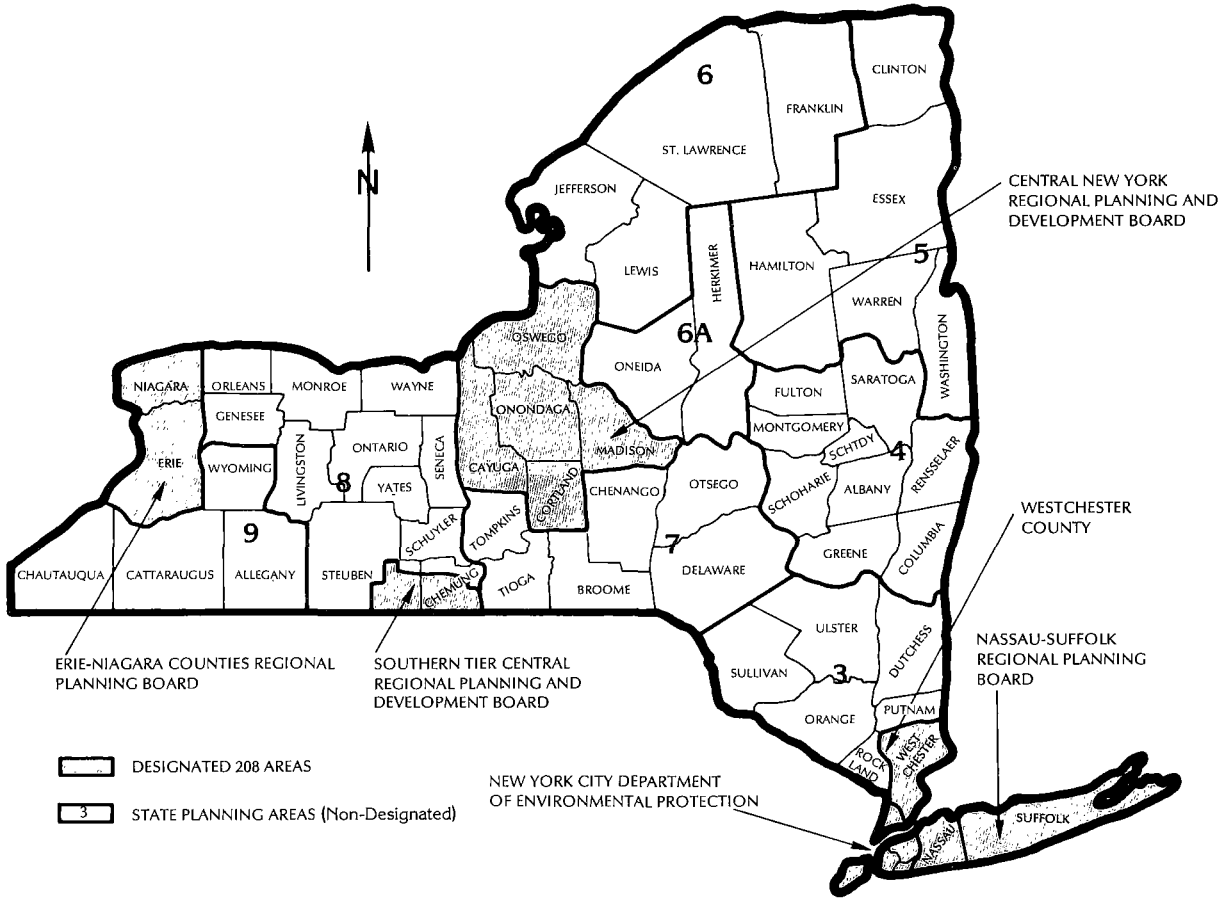
Groundwater quality often is linked directly to improvements in land use through both the type of use and the performance characteristics of particular uses. Preservation of wetlands, required under State and Federal laws can play an important role in filtering nutrients and wastes from upland runoff.

It is recognized that local government decisions being made in New York State must increasingly reflect concern for resource management. In particular, local land-use plans should include water quality implications for future growth and development, be it runoff from a shopping center, a new subdivision, or treatment of industrial sewage and residual wastes.

In addition to local planning activities, local government management activities are clearly required to carry out the strategies outlined in the Agreement. Local operation of the sewage treatment plant, maintenance of sewer and water systems, adequate provision for street sweeping, road bank maintenance, and solid waste management are just a few examples.

A major concern recognized in the Agreement is the ability to afford—particularly by local government—the many strategies required to meet water quality standards. DEC will build upon ongoing analyses of this important "ability to afford" issue to ensure that cost-effective and implementable solutions are found.

The strategies in the Agreement increase the challenge to local government for effective management for water quality, as well as residuals management and resource recovery. During 1978 local officials will be recommending the designation of management agencies for these activities.



New York State Designated Areas and Agencies Funded Under the Federal Clean Water Act

The Public's Opportunity

There is no way "not" to be involved in the subject of water. It is the most basic and indispensable commodity that people use. The public involvement structure and process is already in place. It needs to be strengthened and expanded, however.

Many Federal and State water pollution control laws require public participation, and the State and EPA are determined that this participation be active and meaningful rather than the perfunctory fulfillment of a legislative mandate. Although there are more than 4000 volunteers in New York State who are today giving their time and talents as advisors on various environmental issues, the State and EPA Region II will work to increase this number substantially and make the public's involvement even more meaningful than it has ever been in the past.

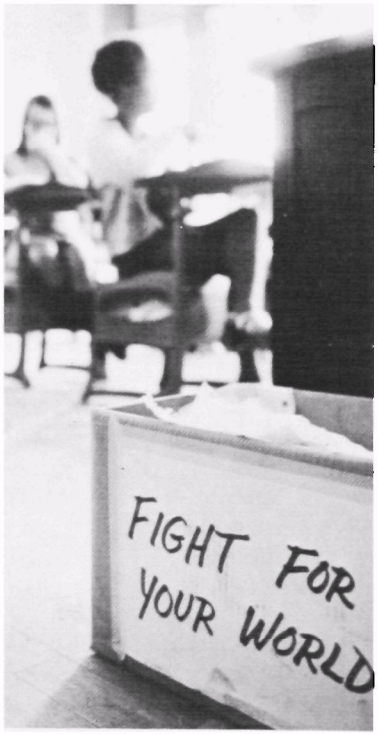
The DEC Commissioner has a statewide advisory council of about 100 citizens representing a broad range of interests. Environmental management councils are established in 47 counties and in about 270 communities. The advisory groups developed across the State to work on Section 208 of the Clean Water Act consist of over 1000 individuals representing industry, labor, farm, and civic groups who have trained themselves in all facets of water quality management. They will be instrumental in reviewing and following up on the proposed Agreement.

During 1974 and 1975, six urban areas were designated by the Governor to put together an areawide waste treatment management plan under this Section 208. Each of these designated areas has its own public advisory structure, including elected and appointed officials and citizen representatives. Each area has a Section 208 newsletter. Detailed plans, including documentation of public involvement in the planning process are now being submitted to EPA for approval.

In the rest of the State (see map), DEC has established eight planning regions within which section 208 advisory committees have been formed. The committees have been functioning for about one year. They advise the Department on priority problems in their area and review and comment on statewide studies being conducted on a variety of water management issues.

In four of the regions (5, 6, 6A, and 7) the Policy Advisory Committee (PAC) is the existing Regional Planning Board. The PAC members in each of the other four regions (3, 4, 8, and 9) were appointed by the Commissioner on the recommendation of local governments, citizen groups, and the DEC Regional Directors. In all cases, a majority of the PAC members are locally elected or appointed officials.

Technical Advisory Committees (TACs)



and Citizen Advisory Committees (CACs) or some combination thereof are active in each region. The organizational structure varies to suit local conditions and preferences. For example, some areas have developed advisory groups in each county; others meet on an areawide basis. Some have strong subcommittees to track each aspect of the complex planning process. All of the CACs are open-ended as far as membership goes, although steering committees have been elected by some groups. With organizational problems now behind them, the advisory committees are beginning to reach out to the larger community through regional 208 newsletters, slide shows, public meetings, and seminars.

The Agreement recommends that this regional advisory structure be continued as the core of a greatly expanded information and involvement effort. It also calls for a more explicit link between the work of the Section 208 advisory committees and that of environmental management councils and commissions. It recommends discretionary funds for the support of a constituency development program.

As funding permits during the next five years, the DEC will expand and strengthen its public information programs and develop its regional offices into full-fledged information exchange centers. Public education programs will focus more specifically on the water quality issues raised in the Agreement. The DEC and EPA staffs will continue to be available to speak to groups and organizations.

To help stimulate public discussion of the issues presented in the Agreement, the State and EPA Region II, in conjunction with the Section 208 designated agencies and all regional 208 advisory committees, will hold a series of public meetings during the spring of 1978. These meetings will offer a forum for questions and an opportunity for new ideas to be heard.

In the Agreement, many new program strategies are being proposed: resource recovery operations, land-use policies, tighter controls on toxics, groundwater management, nonpoint-source pollution control, and others. The development of these strategies will call for the expenditure of additional public funds. Exactly how such funds are spent in New York State depends on the critical needs of communities. The citizens of New York have a real opportunity to speak up for their needs and influence the plans and decisions being made.

For additional information on the Agreement and the public meetings which will be held this year, fill out and return the postcard provided in this booklet, or contact EPA or DEC at the following locations:

Yes, I am interested in receiving information relating to the Five-Year Plan for Water Quality Management. Please send me the following checked items:

- ☐ Notices of Public Meetings
- ☐ It's Time to Speak Up (Citizen participation)
- ☐ A Primer on Wastewater Treatment
- ☐ A Citizen's Guide to Clean Water
- ☐ Resource Recovery (The Modern Approach to Waste Control and Reuse)
- ☐ Towards Purer Waters—A Progress Report
- ☐ Environmental Deterioration and Declining Species
- ☐ Land Where We Live
- ☐ Pure Waters Progress in New York State
- ☐ Help—Give Earth a Chance
- ☐ Environmental Action
- ☐ Add my name to your mailing list for the 208 Bulletin and other notices

Name: _____

Address: _____

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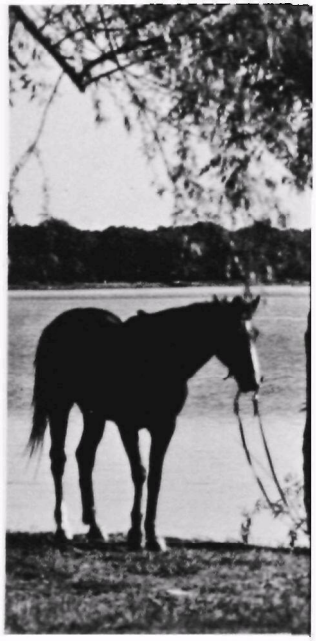

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